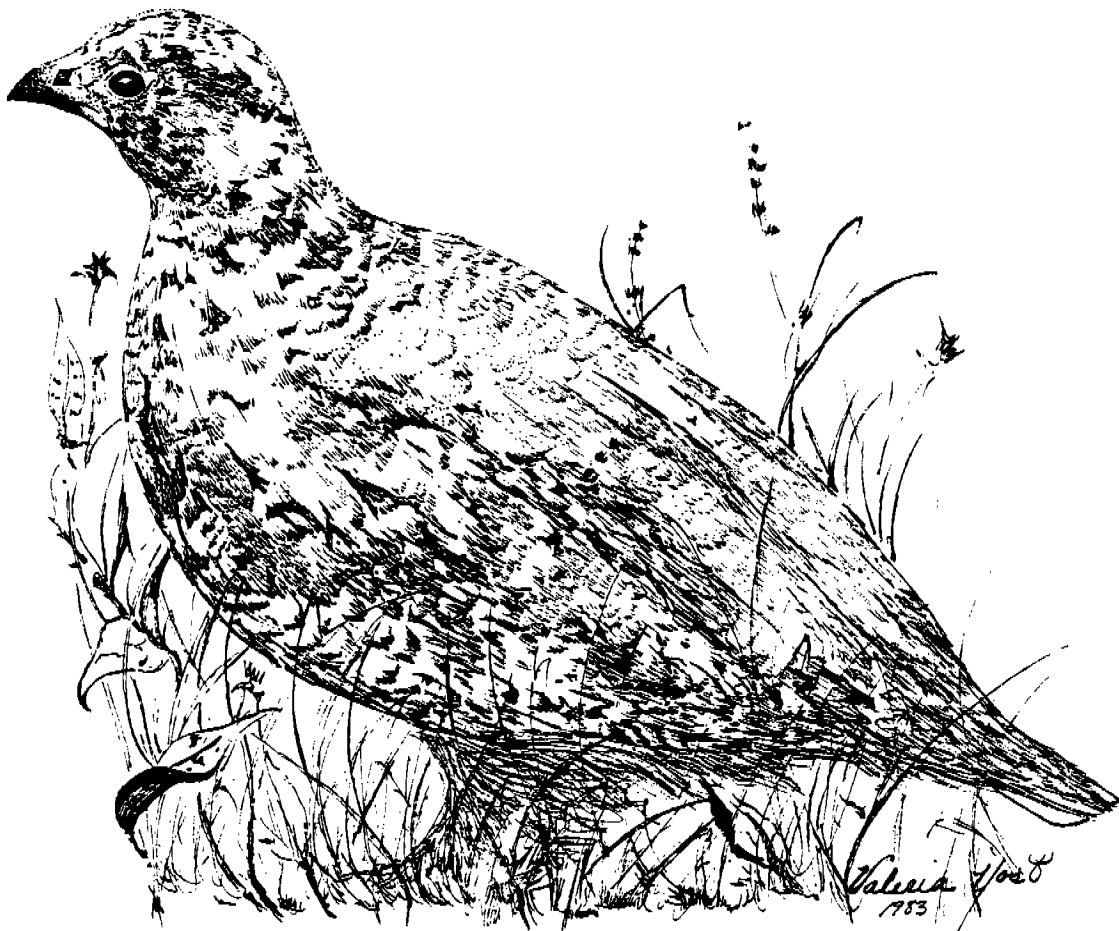


UTAH UPLAND GAME  
Annual Report  
1982



Utah Department of Natural Resources  
Division of Wildlife Resources

83-8

U T A H  
U P L A N D G A M E

Annual Report

1982

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Annual Performance Report for Federal Aid Project W-65-R-31 Job A-4

Utah Department of Natural Resources

DIVISION OF WILDLIFE RESOURCES

An Equal Opportunity Employer

Douglas F. Day  
Director

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JOB PERFORMANCE REPORT  
RESEARCH PROJECT SEGMENT  
(Inventory)

State: U T A H Project Title: Statewide Wildlife  
Management Inventory  
Project No.: W-65-R-31 Job Title: Statewide Upland Game  
Inventory and Management  
Job No.: A-4

Period Covered: December 15, 1981 to April 30, 1983

Abstract: This report includes upland game inventory and harvest data relating to the 1982-83 hunting seasons. Results of annual inventory and harvest surveys and long-term trends of indices derived by each method are included. Data obtained in 1982 are compared to 1981 and long-term averages.

Objectives: To conduct annual inventories and determine the population trend and annual harvest of upland game.

Procedures: Annual inventory procedures for ring-necked pheasants included winter sex ratio counts and summer roadside counts. The winter sex ratio counts were conducted from December 15, 1981 through February 10, 1982, as snow cover conditions allowed. Indices derived include hen-cock ratios and pheasants observed per 100 hours. Annual summer roadside counts (three or more per route) were conducted from July 22-August 18 on permanently established routes. Indices derived include pheasants per mile, young per mile, young per hen, mean brood and percent of hens with young.

Mourning dove breeding population trend was determined via the annual call count survey. This survey is part of a nationwide survey administered by the U. S. Fish and Wildlife Service. Call counts are conducted over 15 permanent, 20-mile routes. One count was made on all but one route between May 20-30.

Random brood counts were conducted on chukar and Hungarian partridge, forest grouse (ruffed and blue), sage grouse, sharp-tailed grouse, wild turkey and quail from June 15-August 26. Indices derived for each species include mean brood size, young per 100 adults and birds observed per 100 hours of effort.

Sage grouse strutting ground counts and sharp-tailed grouse dancing ground counts were conducted from March 15-May 15. Total cocks counted, average cocks per ground and percent change from 1981 for comparable grounds were determined on a county basis.

The Gambel's quail call count route in Washington County was discontinued in 1980. Long period waterhole counts were completed in July and August.

Cottontail rabbit roadside counts were conducted over pre-established routes between July 15 and August 5. Indices derived include rabbits per mile and young per 100 adults.

Harvest questionnaires were used to determine the harvest of upland game birds, cottontail rabbit and snowshoe hare, band-tailed pigeon and wild turkey. An approximate 19 percent sample of eligible licensees from the previous year's (1981) license file was selected for the game bird and rabbit and hare questionnaire. Separate questionnaires were mailed to all band-tailed pigeon and wild turkey permittees. Indices derived include total hunters, hunter-days, total harvest and hunter success per day plus success for each season.

The upland game questionnaires were analyzed by the Division of Wildlife Resources information systems services subsection. Due to accumulated rounding errors associated with transferring data from the printout, some totals (columns and percentages) may not total exactly.

Beginning in 1978, the program was expanded to report total estimated hunter-days and harvest by species and county rather than just the percent of pressure and harvest. Wild turkey and band-tailed pigeon questionnaires were analyzed by the Game Management Section personnel.

Field bag checks of upland game hunters were made primarily at checking stations, with additional random field checks made during each hunting season. Indices derived include bag per hunter (per day), bag per 100 hours, average hours per hunter-day and average hours per bird bagged. Additional sex and age composition data were compiled for some species using wing samples collected at checking stations.

A pilot mail-in wing sample program was begun in 1981. Wings were collected in 1982, however, analysis was not completed in time to be included in this report.

During 1982 a computerized pull apart mailer was again used to obtain harvest data. Data input and storage was entered on tape instead of cards. This method was initiated in 1981, and was found to be very satisfactory.

**Recommendations:** This project should be continued for the purpose of determining trends of upland game populations and harvest statistics in Utah.

# INTRODUCTION

The objective of Utah's upland game management program is to provide recreational hunting opportunity for sportsmen within the limits of the annual harvestable surplus for each species. It is based on the knowledge that populations of upland game experience relatively high rates of annual turnover. High reproductive rates are naturally compensated for by high death rates, whether hunting is allowed or not. Annual surveys are conducted to measure the production, trend and harvest of each upland game population hunted.

This is the twelfth edition of this annual Upland Game Report. It is an annual performance report of information compiled during inventory and harvest surveys conducted under Federal Aid Project W-65-R, Job A-4. Information contained herein was compiled by conservation officers, biologists, game managers and the upland game management staff of the Division of Wildlife Resources.

This report serves as a handbook of inventory and harvest data. It is designed primarily for the use of those concerned with the management of upland game in Utah. A separate section is devoted to each species of upland game hunted in Utah. Data are presented primarily in tabular form with limited narrative comment. The first page of each section provides a brief summary of population status and trend as indicated by inventory and harvest data.

During 1982, a total of 97,705 Utah sportsmen spent 600,435 days afield in pursuit of various upland game species. The harvest of upland game totaled 729,680 animals. The proportion of the total upland game hunters which pursued each species is shown in Appendix Table 3 and the percentage failing to bag at least one bird of each species in Appendix Table 4. The regulations for 1982 upland game hunting seasons are shown in Appendix Table 6.

A summary of harvest statistics by species follow.



Species	Hunters Afield	Total Harvest	Hunter Days	Bag per Hunter-day	Bag/Hunter For Season
Pheasant	85,368	208,437	280,437	0.74	2.44
Mourning dove	31,756	282,188	107,728	2.62	8.89
Chukar partridge	11,326	24,460	32,691	0.75	2.16
Sage grouse	8,997	12,383	15,663	0.79	1.38
Forest grouse	12,384	21,778	28,767	0.76	1.76
Quail	4,368	9,870	10,575	0.93	2.26
Hungarian partridge	2,590	4,475	5,379	0.83	1.73
Wild turkey					
spring	80	12	184	0.07	0.15
fall	50	11	136	0.08	0.22
Band-tailed pigeon	51	113	125	0.90	2.22
Sharp-tailed grouse	0	0	0	--	--
Ptarmigan	19	0	33	--	--
Cottontail	26,714	156,696	105,644	1.48	5.87
Snowshoe	4,245	9,257	13,073	0.71	2.18
TOTAL	--	729,680	600,435	--	--

Total hunters afield for all species of upland game = 97,705

Harvest statistics were obtained from a random sample of licensed hunters by their response to a hunter questionnaire.

A total of 24,919 upland game bird questionnaires, an approximate 19 percent sample, were mailed. The combined upland game bird and rabbit-hare questionnaire was again used. A total of 2,310 (19%) questionnaires were undeliverable. There were 1,433 returns from persons who did not purchase a license during 1982.

Of the 22,609 questionnaires delivered, 8,734 (38.6%) usable upland game questionnaires were returned. Of those, 2,359 purchased a license but did not hunt upland game. By dividing the total of 133,860 eligible licensees by the usable returns (8,734), a projection factor of 15.326311 is derived.

The 1982 hunter questionnaire sample size was increased to improve the precision of harvest estimates in counties where hunting pressure and harvest are limited. Extremely small samples from these counties tend to over-estimate the harvest and thus bias the results. Although harvest, number of hunters and days-afield may be over-estimated where small samples are obtained, harvest per hunter-day should be relatively precise.

The upland game questionnaire is designed to monitor statewide harvest trend from year to year. The more extensively a species is hunted, the more accurately the questionnaire measures the trend data. In an effort to improve the accuracy of indices for species which receive very little hunting pressure and harvest, and which have low densities and limited distribution, a unique questionnaire for that specie is mailed to the permit holder. This method has been used for wild turkey, band-tailed pigeon, sharp-tailed grouse and white-tailed ptarmigan.

The annual harvest report is sometimes criticized for being inaccurate and without value. However, report users must recognize that the accuracy of the questionnaire is based on some basic assumptions. These assumptions are: (1) the 19 percent sample is a random sample of license buyers, (2) respondents recorded data correctly, i.e., they clearly understood the questionnaire, (3) respondents recorded data accurately, did not guess and were truthful, and (4) respondents correctly identified species hunted. If these assumptions are not met, projections of harvest by county may be over-estimated due to nonrespondent or memory biases. Extreme caution should be used in the interpretation of estimated harvest and hunters for specific species in specific counties. Rather, the long term trend in these indices should be used in managing the populations.

Presently, the upland game annual report is the best data available and therefore constitutes the basic facts of upland game management. Although this report has its limitations, the trend data is valuable in making professional judgements regarding upland game populations and harvest.

The annual report is used in wildlife planning. It can be used to establish relative importance among species and for developing new resources through transplants or habitat developments. It points out areas of needed research by indicating problems and possible causes. It documents population trends and it combines all this inventory information into one easily accessible publication. Thus it is used extensively by federal land management agencies in environmental impact statements and management plans. It will become increasingly more important in developing management plans, and assessing impacts on wildlife habitat.

Average temperatures in 1982 were slightly below normal throughout the year, with the exception of March and August, when temperatures were only 1.8 and 1.7 degrees Fahrenheit above normal. October temperatures dropped considerably below normal as a result of heavy precipitation (300% above normal).

Precipitation fluctuated from 3.07 inches above normal in September to 0.5 inches below normal in April. February and June were the only other months with below normal precipitation. The average precipitation for all other months was 0.70 inches above normal.

April, May and June were reasonably dry while March had 0.96 inches above normal precipitation. Temperatures were moderate.

The effects this variable weather pattern had on brood success is only speculative.



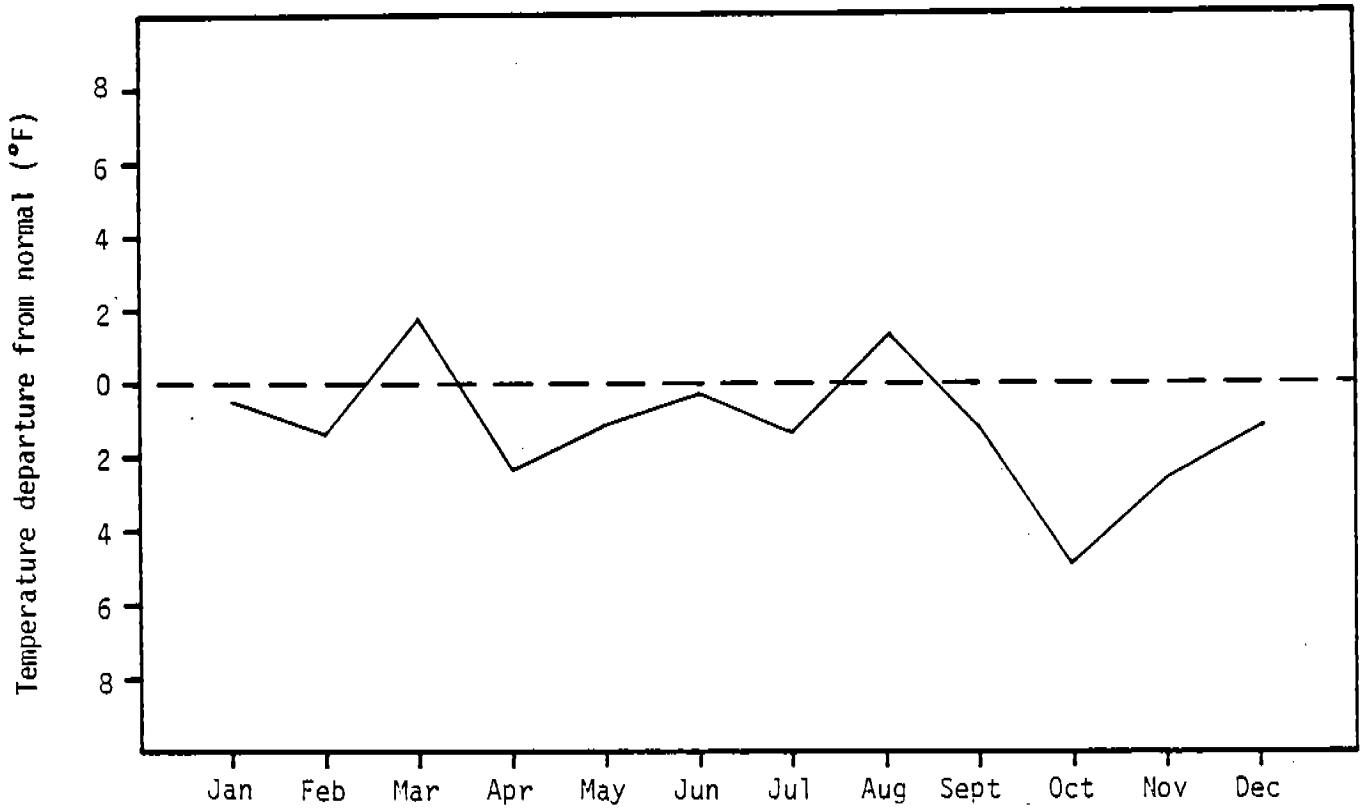


Figure 1. Monthly average temperature departure from normal, 1982.

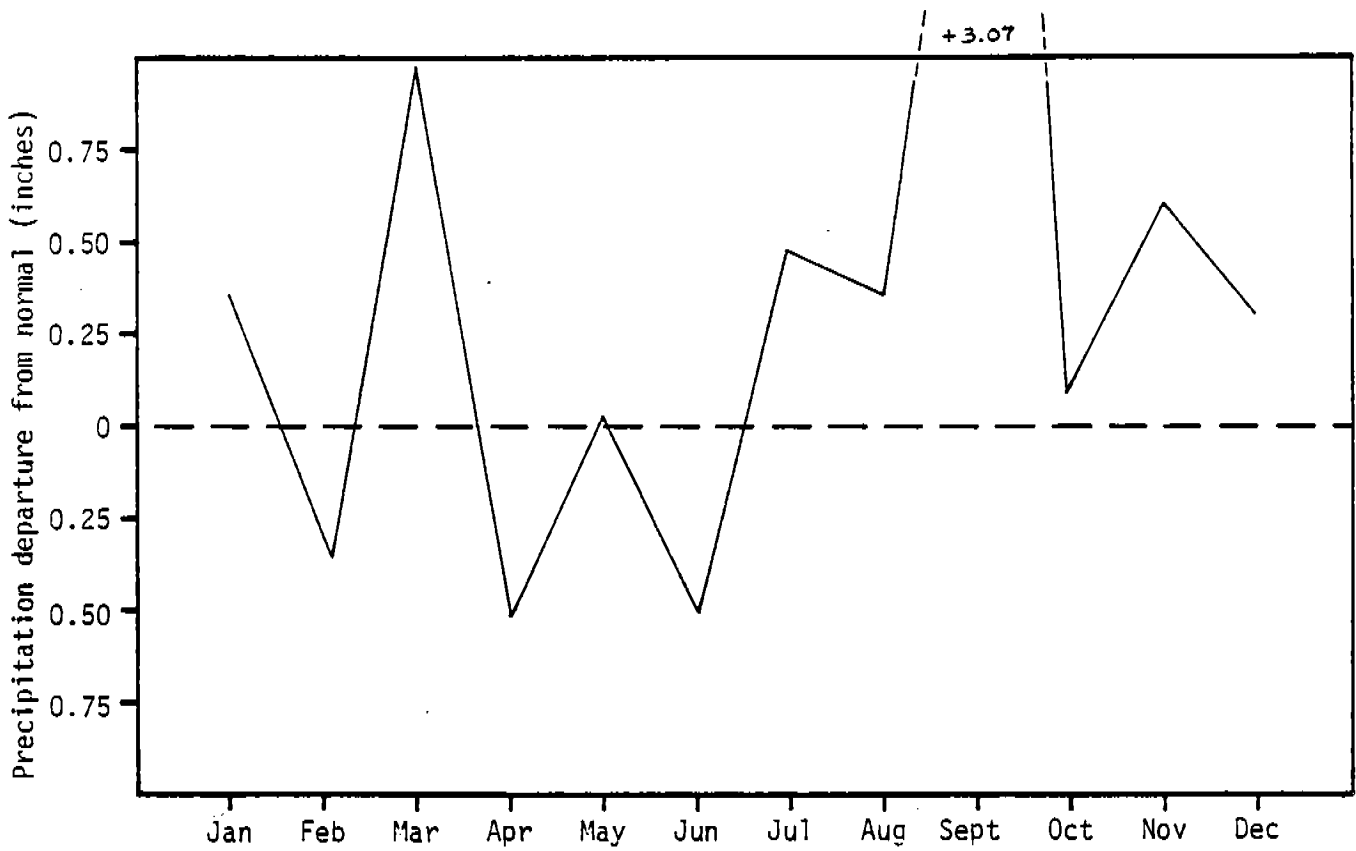


Figure 2. Monthly average precipitation departure from normal, 1982.

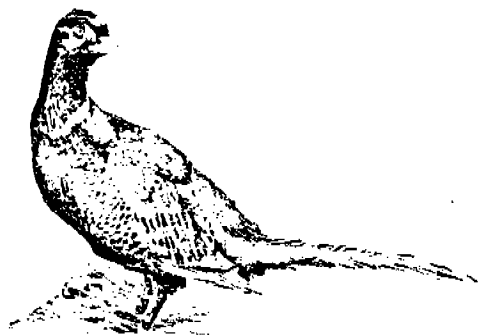
# RING-NECKED PHEASANT

## SUMMARY

The statewide breeding population indices, based on 1981 harvest data, were about the same as 1981 but below average. However, winter sex ratio indices indicated increased breeding populations. Winter carry-over from 1981 was not good in northern and central Utah due to the below average temperatures and above average accumulated snow depths.

Weather conditions during the nesting season were not as good as in 1981. Statewide monthly average temperatures were lower. Plant phenology was delayed and accumulated precipitation was 122 percent of normal. Production was generally below 1981 levels and below average statewide.

Harvest statistics compiled from the questionnaire indicated poor success compared to 1981. Hunter pressure increased 6 percent and total harvest declined 11 percent. Birds per hunter-day decreased 16 percent from 1981. Field bag check data showed that hunter success dropped during 1982. The ratio of birds per hunter from field bag checks was comparable to the index from hunter questionnaires.



### Winter Sex Ratio Counts

Results of the survey for the winter of 1981-82 and long-term trends are shown in Tables 1 and 2 of this section. Statewide comparisons to the winter of 1980-81 and the 10-year average are as follows:

	<u>Winter of</u> <u>1981-82</u>	<u>Percent change from</u> <u>1980-81</u> <u>Average</u>	
Total pheasants counted (roadside)	11,566	+173	+34
Hens per cock	4.6	+35	+14
Pheasants observed per 100 hours	2,910	+153	+140
Total hours effort (roadside)	397.5	+4	-43

Winter sex ratio counts indicated an increased breeding population in 1982 from 1981 and well above average. Counting conditions were generally good. The hen-cock ratio increased 35 percent from 1981 and was well above average. Eastern Box Elder, Cache, Sanpete and Juab counties lost many pheasants last winter due to deep snow and cold temperatures. By the middle of May accumulated precipitation was 122 percent of normal.

### Roadside Counts

A summary of summer roadside pheasant counts for 1982 is shown in Table 3. Long-term trends of pheasants per mile, young per mile, young per hen, percent of hens with young and mean brood size are found in Tables 4-8. Summer 1982 survey results compared to 1981 and the 10-year average follow:

	<u>1982</u>	<u>Percent change from</u> <u>1981</u> <u>Average</u>	
Total pheasants observed	3,045	-21	+11
Total miles driven	2,468	-7	-13
Pheasants per mile	1.19	-18	-5
Average brood size	5.11	-6	-6
Young per hen	3.88	-6	-3
Percent of hens with young	75	-5	-3

April temperatures were below normal with below normal precipitation. May temperatures were one degree below normal and precipitation was normal. June temperatures were slightly colder than normal with below average precipitation. Counting conditions were good over most of the state.

Cool temperatures delayed plant growth while the surface moisture was absorbed by high winds. Growth of pasture was at least two weeks behind normal during April. A late spring with cold and wet conditions in April and May apparently reduced nesting success.

Production decreased from 1981 and was below 1981 levels in the Northern and Southern regions. The density index (pheasants per mile) decreased from 1.46 in 1981 to 1.19 in 1982 which is slightly below the 20 year average.

Below average production, and a lower carry-over from 1981, coupled with spotty inclement brood weather during the early summer months of 1982, resulted in lower fall pheasant populations.

## Harvest

### Hunter Questionnaire

Results of the hunter questionnaire for 1982 are shown in Table 9. Long-term trends of pheasants bagged per hunter-day, percent of harvest and percent of pressure (hunter-days) by county are found in Tables 10-12 and total statewide harvest statistics in Table 13. A comparison of 1982 harvest statistics to 1981 and the 34-year average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Pheasant hunters	85,368	+2	+2
Pheasants harvested	208,437	-11	-11
Hunter-days afield	280,624	+6	+28
Pheasants per hunter-day	0.74	-16	-31
Pheasants per hunter	2.44	-13	-13

Total hunters increased slightly from 1981 but remained at the long-term average (1948-80). Hunter-days afield increased but the total harvest decreased 11 percent from 1981. Hunter success (pheasants per hunter-day) decreased from 1981 and remained well below average. Pheasants per hunter also decreased 13 percent to below the 34 year average.

Long-term trends (1966-81) of total hunters, hunter-days, harvest and hunter success are shown in Figure 1. Generally, the trend continues toward more hunters and hunter-days with gradual declines in total pheasants harvested.

### Field Bag Checks

A summary of pheasant field bag check data for 1982 is shown in Table 14. The hunter success trend determined via bag checks since 1977 is found in Table 15. A comparison of 1982 data, on a statewide basis, to 1981 and the 10-year average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Total hunters checked	4,180	-8	-20
Total hours hunted	14,550	-6	-16
Pheasants per hunter (complete hunts)	0.71	-21	-8
Pheasants bagged per 100 hours	17	-15	+2
Average hours per hunter-day (complete hunts)	4.3	-2	-2
Hours hunted per pheasant bagged	6.0	+22	+2

Checking Station Report

Opening day weather conditions were generally good statewide. Hunting success was fairly spotty. Success was down considerably in Box Elder, Cache, Utah and Millard counties. It was down slightly in Duchesne, Juab, Beaver and Sevier counties.

Hunter pressure was generally down in southern and central Utah and up in northern and northeastern Utah.

Pheasants bagged per hunter and per hunter-day

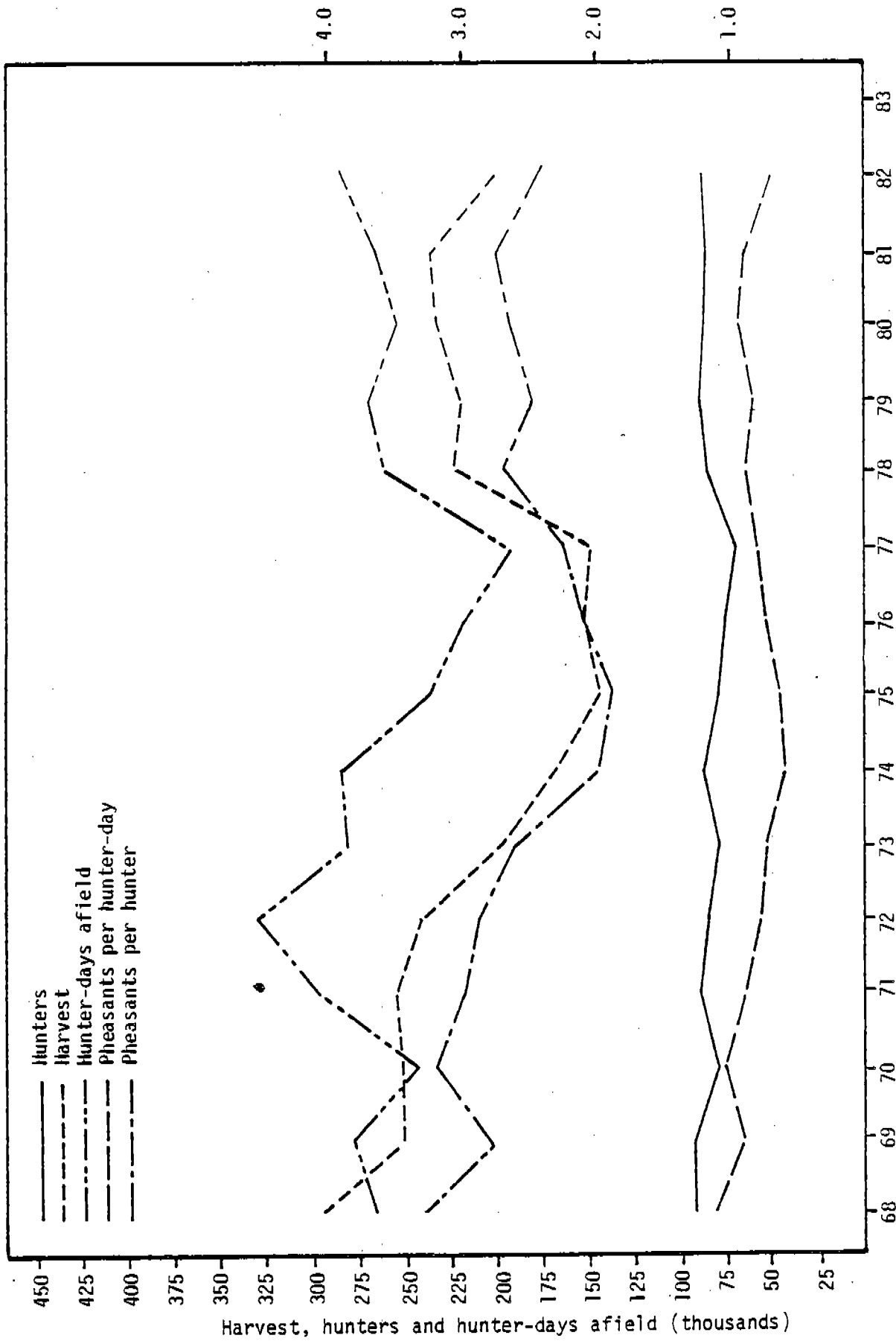


Figure 1. Statewide trend of pheasant harvest statistics

Table 1. Summary of pheasant winter sex ratio counts, 1981-82.

Region and County	Roadside Observations				Flushing Observations				Effort Expended			Pheas. Obs./ 100 Hours of Road. Obs.			
	Cocks	Hens	Total	Hens/ Cocks/ 100 Cocks	Hens	Cocks	Total	Hens/ Cocks/ 100 Cocks	Vehicle Miles	Hours of Effort	Walk Total				
<b>Northern Region</b>															
Box Elder	76	461	537	6.1	16	59	276	335	4.7	21	330	30	0	30	1,790
Cache	137	399	536	2.9	34	--	--	--	--	--	425	33	0	33	1,624
Davis	53	365	418	6.9	15	--	--	--	--	--	196	15	0	15	2,787
Morgan	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Weber	84	849	933	10.1	10	--	--	--	--	--	98	14	0	14	6,664
<b>REGIONAL TOTALS</b>	<b>350</b>	<b>2,074</b>	<b>2,424</b>	<b>5.9</b>	<b>17</b>	<b>59</b>	<b>276</b>	<b>335</b>	<b>4.7</b>	<b>21</b>	<b>1,049</b>	<b>92</b>	<b>0</b>	<b>92</b>	<b>2,999</b>
<b>Central Region</b>															
Juab	38	204	242	5.4	19	3	15	18	5.0	20	160	15	1	16	1,613
Salt Lake	49	186	235	3.8	26	--	--	--	--	--	417	18.5	1	19.5	1,270
Sanpete	465	3,809	4,274	8.2	12	--	--	--	--	--	876	78.5	0	78.5	5,445
Tooele	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Utah	496	1,652	2,148	3.3	30	55	287	342	5.2	19	695	75.5	0	75.5	2,845
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>1,048</b>	<b>5,851</b>	<b>6,899</b>	<b>5.6</b>	<b>18</b>	<b>58</b>	<b>302</b>	<b>360</b>	<b>5.2</b>	<b>19</b>	<b>2,148</b>	<b>187.5</b>	<b>2</b>	<b>189.5</b>	<b>3,679</b>
<b>Southern Region</b>															
Beaver	44	116	160	2.6	38	--	--	--	--	--	60	6	0	6	2,666
Garfield	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	17	50	67	2.9	34	--	--	--	--	--	120	8	0	8	837
Kane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Millard	106	253	359	2.4	42	--	--	--	--	--	145	6.5	1	7.5	5,523
Piute	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Washington	38	118	156	3.1	32	--	--	--	--	--	150	15	0	15	1,040
Wayne	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>205</b>	<b>537</b>	<b>742</b>	<b>2.6</b>	<b>38</b>	--	--	--	--	--	<b>475</b>	<b>35.5</b>	<b>1</b>	<b>36.5</b>	<b>2,090</b>
<b>Northeastern Region</b>															
Daggett	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Duchesne	58	110	168	1.9	53	--	--	--	--	--	590	28	2	30	600
Uintah	65	180	245	2.8	36	7	25	32	3.6	28	340	23	5	28	1,065
<b>REGIONAL TOTALS</b>	<b>123</b>	<b>290</b>	<b>413</b>	<b>2.4</b>	<b>42</b>	<b>7</b>	<b>25</b>	<b>32</b>	<b>3.6</b>	<b>28</b>	<b>930</b>	<b>51</b>	<b>7</b>	<b>58</b>	<b>810</b>
<b>Southeastern Region</b>															
Carbon	154	280	434	1.8	55	--	--	--	--	--	124	7	0	7	6,200
Emery	187	467	654	2.5	40	--	--	--	--	--	275	24.5	0	24.5	2,670
Grand	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>341</b>	<b>747</b>	<b>1,088</b>	<b>2.1</b>	<b>46</b>	<b>124</b>	<b>603</b>	<b>727</b>	<b>4.9</b>	<b>21</b>	<b>399</b>	<b>31.5</b>	<b>0</b>	<b>31.5</b>	<b>3,453</b>
<b>STATE TOTALS</b>	<b>2,067</b>	<b>9,499</b>	<b>11,566</b>	<b>4.6</b>	<b>22</b>	<b>124</b>	<b>603</b>	<b>727</b>	<b>4.9</b>	<b>21</b>	<b>5,001</b>	<b>397.5</b>	<b>10</b>	<b>407.5</b>	<b>2,910</b>

Table 2. Trend in pheasant winter sex ratio counts, 1976-82.

Region and County	1976-77		1977-78		1978-79		1979-80		1980-81		1981-82		Averages			
	Hens/ Cock	Birds/ 100 Hr	Hens/ Cock	Birds/ 100 Hr	Hens/ Cock	Birds/ 100 Hr	Hens/ Cock	Birds/ 100 Hr	Hens/ Cock	Birds/ 100 Hr	Hens/ Cock	Birds/ 100 Hr	Hens/ Cock	Birds/ 100 Hr	1971-80	
<b>Northern Region</b>																
Box Elder	2.6	738	2.1	700	5.2	2,138	6.4	1,400	3.4	1,245	6.1	1,790	6.1	1,790		
Cache	4.2	747	3.8	430	2.4	790	3.5	1,064	2.3	1,478	2.9	1,624	2.9	1,624		
Davis	6.5	1,464	7.3	631	5.6	1,712	2.5	509	3.9	830	6.9	2,787	6.9	2,787		
Morgan	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Rich	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Summit	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Weber	6.7	1,283	7.8	469	8.6	9,938	14.0	1,154	6.2	1,162	10.1	6,664	10.1	6,664		
<b>REGIONAL TOTALS</b>	4.7	982	4.8	515	4.5	1,627	5.5	1,179	3.1	1,234	5.9	2,999	5.1	1,418		
<b>Central Region</b>																
Juab	7.0	400	1.5	83	4.6	2,755	6.2	3,586	4.8	373	5.4	1,513	5.4	1,513		
Salt Lake	3.1	433	1.3	202	3.7	357	2.0	419	1.9	577	3.8	1,205	3.8	1,205		
Sanpete	7.4	891	6.5	762	3.0	2,305	3.1	1,451	3.8	86	8.2	5,445	8.2	5,445		
Tooele	1.7	616	3.0	868	3.5	1,294	3.2	1,129	5.6	348	--	--	--	--		
Utah	4.1	1,291	4.9	643	5.0	1,763	5.7	1,170	7.3	1,318	3.3	2,845	3.3	2,845		
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
<b>REGIONAL TOTALS</b>	4.3	924	4.6	596	3.9	1,480	4.2	1,405	4.7	891	5.6	3,641	4.9	1,467		
<b>Southern Region</b>																
Beaver	8.0	300	3.0	514	--	--	0.4	150	1.2	433	2.6	2,666	2.6	2,666		
Garfield	--	--	--	--	0.6	550	2.3	206	3.8	--	2.9	837	2.9	837		
Iron	3.8	580	2.2	145	--	--	--	--	--	--	--	--	--	--		
Kane	--	--	--	--	2.9	5,292	2.7	1,877	3.2	1,891	2.4	5,523	2.4	5,523		
Millard	2.5	402	2.6	1,144	--	--	--	--	--	--	--	--	--	--		
Piute	--	--	--	--	4.0	1,368	5.4	1,848	5.6	2,100	--	--	--	--		
Sevier	2.5	567	4.0	354	2.5	2,041	1.1	690	6.8	1,510	3.1	1,040	3.1	1,040		
Washington	5.4	1,768	5.4	645	0.5	75	--	--	--	--	--	--	--	--		
Wayne	1.6	388	0.5	60	2.8	2,278	2.9	1,081	3.9	1,539	2.6	2,033	2.6	2,033		
<b>REGIONAL TOTALS</b>	3.5	653	3.3	474	2.8	2,278	2.9	1,081	3.9	1,539	2.6	2,033	2.6	2,033	4.2	1,036
<b>Northeastern Region</b>																
Daggett	--	--	--	--	--	--	2.1	3,060	2.2	1,072	1.6	787	1.9	600		
Duchesne	1.6	1,830	2.6	1,477	3.0	3,117	3.3	1,825	4.0	2,360	2.8	1,065	2.8	1,065		
Uintah	2.5	1,760	3.4	2,581	2.5	3,087	2.8	1,381	2.6	1,224	2.4	810	2.4	810		
<b>REGIONAL TOTALS</b>	2.0	1,797	3.0	1,919	2.5	3,087	2.8	1,381	2.6	1,224	2.4	810	2.4	810	2.4	1,457
<b>Southeastern Region</b>																
Carbon	1.3	800	2.3	548	2.3	1,100	0.1	60	1.0	222	1.8	6,200	1.8	6,200		
Emery	2.0	1,571	2.2	642	1.5	906	1.5	587	1.9	4,283	2.5	2,670	2.5	2,670		
Grand	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
San Juan	--	--	--	--	--	345	--	--	--	--	--	--	--	--		
<b>REGIONAL TOTALS</b>	1.8	1,240	2.2	524	1.6	911	1.3	367	1.8	2,543	2.1	3,453	2.1	3,453	2.3	730
<b>STATE TOTALS</b>	3.3	1,014	3.7	711	3.3	1,748	3.6	1,191	3.4	1,151	4.6	2,838	4.1	1,504		



Table 3. Pheasant summer inventory, 1982.

Region and County	No. Routes	Total Miles	Distinct Broods		Mixed Observ.		Adults w/o			Total Hens	Total Yng	Total Cocks	Total Pheas	Yng/Mile	Mean Brood	Yng/Ad Hens	% Hens w/Yng
			No.	Yng	Hens	Yng	Hens	Cocks	Hens								
<b>Northern Region</b>																	
Box Elder	2	149	16	66	0	0	8	6	22	66	8	96	0.64	4.13	3.00	73	
Cache	2	210	2	13	3	11	4	2	7	24	4	35	0.17	6.50	3.43	71	
Davis	1	69	1	2	15	28	3	8	24	30	3	57	0.83	2.00	1.25	67	
Morgan	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Rich	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Summit	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Weber	1	78	15	85	6	23	9	2	23	108	9	140	1.79	5.66	4.70	91	
<b>REGIONAL TOTALS</b>	<b>6</b>	<b>437</b>	<b>34</b>	<b>166</b>	<b>24</b>	<b>62</b>	<b>24</b>	<b>18</b>	<b>76</b>	<b>228</b>	<b>24</b>	<b>328</b>	<b>0.78</b>	<b>4.88</b>	<b>3.00</b>	<b>76</b>	
<b>Central Region</b>																	
Juab	1	36	4	15	0	0	3	0	4	15	3	22	0.61	3.75	3.75	100	
Salt Lake	1	84	16	71	0	0	7	10	26	71	7	104	1.24	4.44	2.73	62	
Sarpete	2	270	46	273	19	116	22	6	71	389	22	482	1.78	5.93	5.48	92	
Tooele	1	60	2	7	2	6	8	2	6	13	8	27	0.45	3.50	2.17	67	
Utah	3	189	101	504	10	47	29	45	156	551	29	736	3.89	4.99	3.53	71	
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	<b>8</b>	<b>639</b>	<b>169</b>	<b>870</b>	<b>31</b>	<b>169</b>	<b>69</b>	<b>63</b>	<b>263</b>	<b>1,039</b>	<b>69</b>	<b>1,371</b>	<b>2.15</b>	<b>5.15</b>	<b>3.95</b>	<b>76</b>	
<b>Southern Region</b>																	
Beaver	1	92	8	40	0	4	8	1	9	44	8	61	0.66	5.00	4.89	89	
Garfield	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Iron	1	67	1	3	0	0	1	0	1	3	1	5	0.07	3.00	3.00	100	
Kane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Millard	2	178	20	126	4	22	23	9	33	148	23	204	1.15	6.30	4.48	73	
Piute	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Sevier	2	177	36	164	4	25	14	8	48	189	14	251	1.37	4.56	3.94	83	
Washington	2	105	10	44	0	1	8	3	13	45	8	66	0.62	4.40	3.46	77	
Wayne	1	69	1	2	6	13	4	2	9	15	4	28	0.40	2.00	1.67	78	
<b>REGIONAL TOTALS</b>	<b>9</b>	<b>583</b>	<b>76</b>	<b>379</b>	<b>14</b>	<b>65</b>	<b>58</b>	<b>23</b>	<b>113</b>	<b>444</b>	<b>58</b>	<b>615</b>	<b>1.05</b>	<b>4.98</b>	<b>3.93</b>	<b>80</b>	
<b>Northeastern Region</b>																	
Daggett	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duchesne	3	330	13	95	6	82	36	10	29	177	36	242	0.73	7.31	6.10	66	
Uintah	2	147	12	51	12	88	20	4	28	139	20	187	1.27	4.25	4.96	86	
<b>REGIONAL TOTALS</b>	<b>5</b>	<b>447</b>	<b>25</b>	<b>146</b>	<b>18</b>	<b>170</b>	<b>56</b>	<b>14</b>	<b>57</b>	<b>316</b>	<b>56</b>	<b>429</b>	<b>0.90</b>	<b>5.84</b>	<b>5.54</b>	<b>75</b>	
<b>Southeastern Region</b>																	
Carbon	1	90	2	12	0	5	2	1	3	17	2	22	0.28	6.00	5.67	67	
Emery	3	242	12	53	13	57	27	18	43	110	27	180	0.74	4.42	2.56	58	
Grand	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
San Juan	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	<b>4</b>	<b>332</b>	<b>14</b>	<b>65</b>	<b>13</b>	<b>62</b>	<b>29</b>	<b>19</b>	<b>46</b>	<b>127</b>	<b>29</b>	<b>202</b>	<b>0.61</b>	<b>4.64</b>	<b>4.93</b>	<b>59</b>	
<b>STATE TOTALS</b>	<b>32</b>	<b>2,468</b>	<b>318</b>	<b>1,626</b>	<b>100</b>	<b>528</b>	<b>236</b>	<b>137</b>	<b>555</b>	<b>2,154</b>	<b>236</b>	<b>2,945</b>	<b>1.19</b>	<b>5.11</b>	<b>3.88</b>	<b>75</b>	

\*Data collected by Southeastern Region.

Table 4. Trend of pheasants observed per mile during summer roadside counts, 1972-82.

Region and County	Year											Average 1962-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	1.10	0.38	0.87	0.21	0.46	0.60	0.78	0.41	1.03	1.40	0.74	
Cache	1.10	0.36	0.48	0.68	0.44	0.22	0.71	0.34	0.08	0.92	0.17	
Davis	1.77	--	0.32	1.55	0.54	1.67	1.59	1.47	1.77	1.38	0.83	
Morgan	--	--	--	--	--	--	--	--	--	--	--	
Rich	--	--	--	--	--	--	--	--	--	--	--	
Summit	--	--	--	--	--	--	--	--	--	--	--	
Weber	2.44	2.36	1.77	1.23	2.24	1.30	1.01	1.55	2.03	3.17	1.79	
<b>REGIONAL TOTALS</b>	<b>1.45</b>	<b>1.04</b>	<b>0.80</b>	<b>0.71</b>	<b>0.86</b>	<b>0.85</b>	<b>0.96</b>	<b>0.76</b>	<b>1.23</b>	<b>1.56</b>	<b>0.78</b>	<b>1.33</b>
<u>Central Region</u>												
Juab	0.64	0.23	0.46	0.82	1.20	0.54	0.09	0.13	0.94	0.89	0.61	
Salt Lake	1.29	0.44	0.48	0.54	0.55	0.29	0.09	0.64	0.60	1.09	1.24	
Sanpete	3.27	1.78	1.60	0.08	1.37	1.23	1.28	1.85	2.18	5.25	1.78	
Tooele	2.52	0.07	0.87	0.17	1.02	0.77	1.11	3.83	1.08	0.48	0.45	
Utah	2.02	1.36	1.29	0.64	1.45	0.98	1.96	4.14	1.90	2.19	3.89	
Wasatch	--	--	--	--	--	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	<b>2.06</b>	<b>0.98</b>	<b>1.11</b>	<b>0.62</b>	<b>1.16</b>	<b>0.93</b>	<b>1.40</b>	<b>2.83</b>	<b>1.68</b>	<b>2.01</b>	<b>2.15</b>	<b>1.91</b>
<u>Southern Region</u>												
Beaver	0.75	0.60	0.60	0.07	0.69	0.49	0.71	1.01	0.47	0.63	0.66	
Garfield	--	--	--	--	--	--	--	--	--	--	--	
Iron	0.51	0.56	0.53	0.19	0.39	0.30	0.49	0.97	0.67	1.24	0.07	
Kane	--	--	--	--	--	--	--	--	--	--	--	
Millard	1.09	0.57	0.79	0.41	0.47	0.49	1.38	1.11	0.88	2.85	1.15	
Piute	--	--	--	--	--	--	--	--	--	--	--	
Sevier	2.37	1.03	0.89	0.40	0.72	0.88	1.72	1.10	1.13	0.87	1.37	
Washington	0.92	1.12	1.34	0.47	0.47	0.57	1.40	1.36	0.70	1.41	0.62	
Wayne	--	--	0.48	0.09	1.33	0.03	2.10	0.21	--	1.04	0.40	
<b>REGIONAL TOTALS</b>	<b>1.19</b>	<b>0.79</b>	<b>0.78</b>	<b>0.28</b>	<b>0.58</b>	<b>0.57</b>	<b>1.29</b>	<b>1.08</b>	<b>0.86</b>	<b>1.65</b>	<b>1.05</b>	<b>1.14</b>
<u>Northeastern Region</u>												
Daggett	--	--	--	--	--	--	--	--	--	--	--	
Duchesne	0.27	0.31	0.33	0.33	0.34	0.39	0.68	0.38	0.56	0.84	0.73	
Uintah	0.74	0.61	1.33	0.54	1.45	1.15	1.75	1.90	1.60	1.05	1.27	
<b>REGIONAL TOTALS</b>	<b>0.42</b>	<b>0.39</b>	<b>0.61</b>	<b>0.39</b>	<b>0.67</b>	<b>0.65</b>	<b>1.02</b>	<b>0.90</b>	<b>0.93</b>	<b>0.91</b>	<b>0.90</b>	<b>0.69</b>
<u>Southeastern Region</u>												
Carbon	0.15	0.01	0.00	0.02	0.39	0.23	0.22	0.40	0.37	1.22	0.28	
Emery	1.32	0.64	1.06	0.88	0.47	0.61	0.53	0.39	0.49	0.74	0.74	
Grand	--	--	--	--	--	--	--	--	--	--	--	
San Juan	--	--	5.00	3.57	0.93	0.93	0.00	0.35	--	--	--	
<b>REGIONAL TOTALS</b>	<b>0.76</b>	<b>0.34</b>	<b>0.64</b>	<b>0.60</b>	<b>0.44</b>	<b>0.44</b>	<b>0.35</b>	<b>0.38</b>	<b>0.45</b>	<b>0.86</b>	<b>0.61</b>	<b>0.70</b>
<b>STATE TOTALS</b>	<b>1.33</b>	<b>0.74</b>	<b>0.83</b>	<b>0.49</b>	<b>0.78</b>	<b>0.71</b>	<b>1.02</b>	<b>1.37</b>	<b>1.10</b>	<b>1.46</b>	<b>1.19</b>	<b>1.25</b>

Table 5. Trend of young observed per mile during summer roadside pheasant counts, 1972-82.

Region and County	Year											Average 1962-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	0.76	0.28	0.62	0.13	0.31	0.41	0.55	0.03	0.69	1.07	0.44	
Cache	0.81	0.32	0.35	0.43	0.30	0.17	0.47	0.20	0.07	0.70	0.11	
Davis	1.28	--	0.22	0.84	0.54	1.17	1.26	0.99	1.27	0.81	0.43	
Morgan	--	--	--	--	--	--	--	--	--	--	--	
Rich	--	--	--	--	--	--	--	--	--	--	--	
Summit	--	--	--	--	--	--	--	--	--	--	--	
Weber	1.74	1.72	1.31	0.77	1.47	0.84	0.62	1.22	1.53	2.38	1.38	
<b>REGIONAL TOTALS</b>	<b>1.04</b>	<b>0.77</b>	<b>0.59</b>	<b>0.43</b>	<b>0.58</b>	<b>0.58</b>	<b>0.68</b>	<b>0.55</b>	<b>0.88</b>	<b>1.15</b>	<b>0.52</b>	<b>0.97</b>
<u>Central Region</u>												
Juab	0.50	0.17	0.38	0.71	1.06	0.46	0.76	0.02	0.85	0.63	0.42	
Salt Lake	1.04	0.32	0.32	0.35	0.37	0.21	0.07	0.44	0.32	0.57	0.84	
Sanpete	2.64	1.43	1.26	0.56	1.12	0.98	1.06	1.53	1.72	4.40	1.44	
Tooele	2.09	0.00	0.62	0.07	0.69	0.45	0.72	2.95	0.76	0.28	0.22	
Utah	1.35	1.02	0.95	0.33	0.99	0.60	1.43	3.00	1.30	1.68	2.52	
Wasatch	--	--	--	--	--	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	<b>1.53</b>	<b>0.73</b>	<b>0.83</b>	<b>0.38</b>	<b>0.84</b>	<b>0.63</b>	<b>1.06</b>	<b>2.11</b>	<b>1.21</b>	<b>1.51</b>	<b>1.63</b>	<b>1.45</b>
<u>Southern Region</u>												
Beaver	0.57	0.39	0.47	0.03	0.54	0.33	0.58	0.87	0.37	0.54	0.48	
Garfield	--	--	--	--	--	--	--	--	--	--	--	
Iron	0.39	0.51	0.46	0.08	0.31	0.17	0.38	0.74	0.53	1.07	0.04	
Kane	--	--	--	--	--	--	--	--	--	--	--	
Millard	0.87	0.48	0.57	0.27	0.34	0.34	1.12	0.89	0.69	2.27	0.83	
Piute	--	--	--	--	--	--	--	--	--	--	--	
Sevier	1.93	0.85	0.70	0.28	0.56	0.70	1.45	0.93	0.90	0.67	1.07	
Washington	0.65	0.72	1.03	0.26	0.35	0.37	1.08	1.02	0.49	0.89	0.43	
Wayne	--	--	0.14	0.02	0.87	0.00	1.76	0.15	--	0.87	0.21	
<b>REGIONAL TOTALS</b>	<b>0.95</b>	<b>0.61</b>	<b>0.59</b>	<b>0.17</b>	<b>0.44</b>	<b>0.41</b>	<b>1.05</b>	<b>0.87</b>	<b>0.67</b>	<b>1.30</b>	<b>0.76</b>	<b>0.88</b>
<u>Northeastern Region</u>												
Daggett	--	--	--	--	--	--	--	--	--	--	--	
Duchesne	0.15	0.18	0.21	0.23	0.21	0.25	0.53	0.27	0.37	0.52	0.54	
Uintah	0.55	0.47	1.08	0.27	1.07	0.79	1.41	1.50	1.20	0.83	0.95	
<b>REGIONAL TOTALS</b>	<b>0.28</b>	<b>0.26</b>	<b>0.45</b>	<b>0.24</b>	<b>0.47</b>	<b>0.44</b>	<b>0.81</b>	<b>0.69</b>	<b>0.66</b>	<b>0.63</b>	<b>0.66</b>	<b>0.49</b>
<u>Southeastern Region</u>												
Carbon	0.10	--	0.00	0.00	0.22	0.03	0.15	0.30	0.22	0.93	0.18	
Emery	0.96	0.47	0.81	0.57	0.20	0.33	0.35	0.28	0.35	0.52	0.45	
Grand	0.67	--	--	--	--	--	--	--	--	--	--	
San Juan	--	--	4.07	2.43	0.47	0.40	--	0.00	--	--	--	
<b>REGIONAL TOTALS</b>	<b>0.54</b>	<b>0.25</b>	<b>0.50</b>	<b>0.39</b>	<b>0.22</b>	<b>0.18</b>	<b>0.24</b>	<b>0.26</b>	<b>0.31</b>	<b>0.65</b>	<b>0.68</b>	<b>0.50</b>
<b>STATE TOTALS</b>	<b>0.99</b>	<b>0.55</b>	<b>0.62</b>	<b>0.30</b>	<b>0.55</b>	<b>0.47</b>	<b>0.78</b>	<b>1.04</b>	<b>0.80</b>	<b>1.10</b>	<b>0.87</b>	<b>0.94</b>

Table 6. Trend of young per adult hen ratios found during summer roadside pheasant counts, 1972-82.

Region and County	Year											Average 1962-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	3.26	3.23	3.19	2.44	4.18	3.68	3.64	3.92	2.60	4.09	3.00	
Cache	3.88	10.00	3.00	2.69	4.50	4.00	2.80	2.40	4.00	4.18	3.43	
Davis	3.42	--	3.00	1.53	3.75	3.18	4.71	2.30	2.78	1.81	1.25	
Morgan	--	--	--	--	--	--	--	--	--	--	--	
Rich	--	--	--	--	--	--	--	--	--	--	--	
Summit	--	--	--	--	--	--	--	--	--	--	--	
Weber	3.49	3.72	3.66	2.07	2.35	2.12	1.81	4.13	3.97	3.38	4.70	
<b>REGIONAL TOTALS</b>	<b>3.50</b>	<b>3.82</b>	<b>3.35</b>	<b>2.10</b>	<b>2.91</b>	<b>2.88</b>	<b>3.10</b>	<b>3.14</b>	<b>3.07</b>	<b>3.39</b>	<b>3.00</b>	<b>3.63</b>
<u>Central Region</u>												
Juab	4.50	4.00	5.00	6.00	7.40	8.00	5.60	1.00	9.67	4.29	3.75	
Salt Lake	4.74	3.24	2.87	2.39	3.50	5.33	6.00	3.27	1.70	2.04	2.73	
Sanpete	5.52	5.33	4.45	2.67	5.22	5.09	6.03	5.91	4.97	6.71	5.48	
Tooele	5.95	0.00	3.36	1.33	3.06	1.93	2.69	3.93	2.88	2.43	2.17	
Utah	2.71	3.33	3.58	1.62	3.32	2.53	3.42	3.20	2.65	3.80	3.53	
Wasatch	--	--	--	--	--	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	<b>3.78</b>	<b>3.46</b>	<b>3.77</b>	<b>2.16</b>	<b>3.85</b>	<b>3.19</b>	<b>3.88</b>	<b>3.59</b>	<b>3.23</b>	<b>4.08</b>	<b>3.95</b>	<b>3.96</b>
<u>Southern Region</u>												
Beaver	5.38	2.78	5.83	0.86	6.14	3.33	4.72	6.00	6.29	7.00	4.89	
Garfield	--	--	--	--	--	--	--	--	--	--	--	
Iron	4.54	13.67	9.50	0.86	5.50	6.00	5.00	4.25	5.14	8.56	3.00	
Kane	--	--	--	--	--	--	--	--	--	--	--	
Millard	5.65	5.75	2.91	2.52	3.67	3.57	6.05	5.52	6.00	4.65	4.48	
Piute	--	--	--	--	--	--	--	--	--	--	--	
Sevier	4.94	5.18	3.80	3.06	4.79	4.90	6.67	5.96	4.44	4.18	3.94	
Washington	3.50	2.62	3.89	1.94	5.83	2.47	4.52	4.95	5.50	2.69	3.46	
Wayne	--	--	0.54	0.25	2.60	--	7.57	5.00	--	8.75	1.67	
<b>REGIONAL TOTALS</b>	<b>4.98</b>	<b>4.41</b>	<b>3.73</b>	<b>1.93</b>	<b>4.36</b>	<b>3.88</b>	<b>5.85</b>	<b>5.44</b>	<b>5.16</b>	<b>4.66</b>	<b>3.93</b>	<b>4.45</b>
<u>Northeastern Region</u>												
Daggett	--	--	--	--	--	--	--	--	--	--	--	
Duchesne	3.00	4.06	3.71	3.73	4.06	3.41	5.11	5.82	4.22	2.94	6.10	
Uintah	4.84	5.64	5.43	1.78	4.48	3.06	5.63	5.25	3.22	5.50	4.96	
<b>REGIONAL TOTALS</b>	<b>3.92</b>	<b>4.70</b>	<b>4.69</b>	<b>2.73</b>	<b>4.34</b>	<b>3.18</b>	<b>5.39</b>	<b>5.39</b>	<b>3.52</b>	<b>3.73</b>	<b>5.54</b>	<b>4.22</b>
<u>Southeastern Region</u>												
Carbon	4.33	--	--	0.00	2.05	0.42	3.00	4.80	5.00	7.91	5.67	
Emery	3.34	4.70	7.46	3.96	1.46	2.36	2.61	4.29	3.37	3.97	2.56	
Grand	2.22	--	--	--	--	--	--	--	--	--	--	
San Juan	--	--	7.62	2.55	1.75	1.20	0.00	0.00	--	--	--	
<b>REGIONAL TOTALS</b>	<b>3.20</b>	<b>4.70</b>	<b>7.52</b>	<b>3.28</b>	<b>1.74</b>	<b>1.62</b>	<b>2.70</b>	<b>3.00</b>	<b>3.65</b>	<b>4.98</b>	<b>4.93</b>	<b>4.03</b>
<b>STATE TOTALS</b>	<b>3.93</b>	<b>3.95</b>	<b>3.95</b>	<b>2.28</b>	<b>3.56</b>	<b>3.11</b>	<b>4.32</b>	<b>4.05</b>	<b>3.60</b>	<b>4.12</b>	<b>3.88</b>	<b>4.00</b>

Table 7. Trend of the percent of hens observed with broods during summer roadside pheasant counts, 1972-1982.

Region and County	Year												Average 1963-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982		
<u>Northern Region</u>													
Box Elder	69	62	78	78	73	79	80	62	68	83	73		
Cache	78	50	68	66	80	100	60	60	100	77	71		
Davis	85	--	100	97	75	58	88	80	63	71	67		
Morgan	--	--	--	--	--	--	--	--	--	--	--		
Rich	--	--	--	--	--	--	--	--	--	--	--		
Summit	--	--	--	--	--	--	--	--	--	--	--		
Weber	54	82	69	34	58	44	39	70	100	91	91		
<b>REGIONAL TOTALS</b>	<b>70</b>	<b>77</b>	<b>74</b>	<b>68</b>	<b>64</b>	<b>58</b>	<b>64</b>	<b>71</b>	<b>76</b>	<b>80</b>	<b>76</b>	<b>73</b>	
<u>Central Region</u>													
Juab	100	100	100	100	100	100	100	--	100	100	100		
Salt Lake	78	71	52	45	59	100	100	64	71	57	62		
Sanpete	91	93	88	64	90	85	90	100	83	97	92		
Tooele	74	0	64	33	78	57	69	96	75	71	67		
Utah	57	62	58	42	66	61	69	57	64	66	71		
Wasatch	--	--	--	--	--	--	--	--	--	--	--		
<b>REGIONAL TOTALS</b>	<b>69</b>	<b>66</b>	<b>68</b>	<b>49</b>	<b>73</b>	<b>67</b>	<b>74</b>	<b>66</b>	<b>82</b>	<b>72</b>	<b>76</b>	<b>72</b>	
<u>Southern Region</u>													
Beaver	88	64	83	14	86	56	73	77	71	86	89		
Garfield	--	--	--	--	--	--	--	--	--	--	--		
Iron	54	100	80	14	100	100	86	83	86	100	100		
Kane	--	--	--	--	--	--	--	--	--	--	--		
Millard	88	100	50	48	81	68	85	88	87	83	73		
Piute	--	--	--	--	--	--	--	--	--	--	--		
Sevier	90	85	83	59	92	90	97	96	96	82	83		
Washington	62	66	78	31	50	73	87	95	33	66	77		
Wayne	--	--	8	50	40	--	100	100	--	88	78		
<b>REGIONAL TOTALS</b>	<b>83</b>	<b>79</b>	<b>64</b>	<b>42</b>	<b>78</b>	<b>76</b>	<b>89</b>	<b>90</b>	<b>87</b>	<b>81</b>	<b>80</b>	<b>79</b>	
<u>Northeastern Region</u>													
Daggett	--	--	--	--	--	--	--	--	--	--	--		
Duchesne	68	81	76	59	88	81	83	88	77	68	66		
Uintah	84	91	100	48	94	61	95	87	92	100	86		
<b>REGIONAL TOTALS</b>	<b>76</b>	<b>85</b>	<b>90</b>	<b>53</b>	<b>91</b>	<b>68</b>	<b>90</b>	<b>88</b>	<b>87</b>	<b>78</b>	<b>75</b>	<b>78</b>	
<u>Southeastern Region</u>													
Carbon	67	--	--	0	59	17	44	100	75	100	67		
Emery	66	76	77	65	29	55	48	43	68	72	58		
Grand	56	--	--	--	--	--	--	--	--	--	--		
San Juan	--	--	100	55	50	60	0	0	--	--	--		
<b>REGIONAL TOTALS</b>	<b>64</b>	<b>76</b>	<b>86</b>	<b>60</b>	<b>44</b>	<b>44</b>	<b>48</b>	<b>56</b>	<b>70</b>	<b>79</b>	<b>59</b>	<b>67</b>	
<b>STATE TOTALS</b>	<b>72</b>	<b>74</b>	<b>71</b>	<b>54</b>	<b>71</b>	<b>65</b>	<b>76</b>	<b>73</b>	<b>77</b>	<b>79</b>	<b>75</b>	<b>74</b>	

Table 8. Trend of average brood size for pheasants, 1972-82.

Region and County	Year											Average 1962-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	4.81	4.75	4.17	3.14	5.75	4.67	5.71	6.38	3.40	4.90	4.13	
Cache	5.47	5.00	4.38	4.67	5.83	4.00	4.60	3.50	4.00	5.93	6.50	
Davis	4.50	--	3.50	2.75	4.33	5.73	4.79	4.00	5.13	3.64	2.00	
Morgan	--	--	--	--	--	--	--	--	--	--	--	
Rich	--	--	--	--	--	--	--	--	--	--	--	
Summit	--	--	--	--	--	--	--	--	--	--	--	
Weber	6.07	6.55	7.27	5.78	5.05	6.57	4.80	6.00	4.37	3.70	5.66	
REGIONAL TOTALS	5.13	6.00	4.84	4.26	5.19	5.29	5.00	5.22	4.21	4.48	4.88	5.12
<u>Central Region</u>												
Juab	4.50	--	5.00	9.00	7.33	8.00	5.60	--	4.00	3.80	3.75	
Salt Lake	6.93	4.58	5.00	5.73	6.09	5.33	6.00	5.13	3.33	4.67	4.44	
Sanpete	6.11	5.92	4.59	4.72	5.88	4.92	6.56	5.98	5.43	7.24	5.93	
Tooele	8.07	--	6.50	4.00	4.38	3.33	4.57	8.93	3.83	3.67	3.50	
Utah	5.31	5.78	6.24	4.12	4.86	4.56	4.91	5.45	4.09	5.38	4.99	
Wasatch	--	--	--	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	5.92	5.60	5.46	4.73	5.35	4.70	5.29	5.81	4.46	5.66	5.15	5.42
<u>Southern Region</u>												
Beaver	6.17	4.33	8.00	6.00	7.75	6.00	6.50	7.10	7.25	6.50	5.00	
Garfield	--	--	--	--	--	--	--	--	--	--	--	
Iron	5.67	6.00	9.50	6.00	5.25	6.00	5.00	4.25	6.00	8.14	3.00	
Kane	--	--	--	--	--	--	--	--	--	--	--	
Millard	5.31	5.50	6.20	5.73	6.93	5.23	6.88	6.31	6.38	6.30	6.30	
Piute	--	--	--	--	--	--	--	--	--	--	--	
Sevier	5.67	6.14	4.82	4.25	5.17	6.17	6.40	5.94	4.70	5.00	4.56	
Washington	6.33	4.33	4.42	5.80	8.00	3.57	6.33	5.00	--	5.90	4.40	
Wayne	--	--	7.00	--	7.00	--	10.25	5.00	--	1.00	2.00	
REGIONAL TOTALS	5.60	5.38	5.83	5.31	6.37	5.45	6.71	5.96	5.49	6.14	4.98	5.61
<u>Northeastern Region</u>												
Daggett	--	--	--	--	--	--	--	--	--	--	--	
Duchesne	4.45	5.64	5.43	6.40	4.64	4.55	6.54	6.60	5.50	4.58	7.31	
Uintah	5.75	6.28	5.21	4.22	5.00	5.00	5.75	5.56	3.30	5.50	4.25	
REGIONAL TOTALS	5.13	5.89	5.29	5.37	4.85	4.80	6.12	5.93	3.90	4.89	5.84	5.54
<u>Southeastern Region</u>												
Carbon	6.50	--	--	--	3.00	2.50	6.75	3.33	6.67	7.67	6.00	
Emery	5.08	6.22	6.67	5.00	4.86	4.33	5.27	6.00	7.00	6.00	4.42	
Grand	4.00	--	--	--	--	--	--	--	--	--	--	
San Juan	--	--	6.12	--	3.50	4.00	--	--	--	--	--	
REGIONAL TOTALS	5.00	6.22	6.36	5.00	4.40	4.07	5.67	5.00	6.86	6.24	4.64	5.73
STATE TOTALS	5.62	5.65	5.46	4.80	5.37	4.94	5.69	5.79	4.58	5.45	5.11	5.42

Table 9. Summary of pheasant hunter success and distribution of harvest and hunting pressure by region and county, 1982.

Region and County	Sample Size*	Hunter-days Afield	Birds Bagged	Birds per Hunter-day	% of Pressure	% of Harvest
<b>NORTHERN REGION</b>						
BOX ELDER	733	30,223	25,855	0.86	10.77	12.40
CACHE	442	19,954	14,728	0.74	7.11	7.07
DAVIS	612	27,572	17,242	0.63	9.83	8.27
MORGAN	14	643	413	0.64	0.23	0.20
RICH	(7)+	--	--	--	0.00	0.00
SUMMIT	(2)+	--	--	--	0.00	0.00
WEBER	683	33,457	21,211	0.63	11.92	10.18
<b>REGIONAL TOTALS</b>	<b>2,484</b>	<b>111,851</b>	<b>79,452</b>	<b>0.71</b>	<b>39.86</b>	<b>38.12</b>
<b>CENTRAL REGION</b>						
JUAB	182	5,747	4,383	0.76	2.05	2.10
SALT LAKE	562	21,732	12,414	0.57	7.74	5.96
SANPETE	412	15,586	15,571	1.00	5.55	7.47
TOOELE	219	8,919	3,816	0.43	3.18	1.83
UTAH	1,177	47,526	34,468	0.73	16.94	16.54
WASATCH	(8)+	--	--	--	0.06	--
<b>REGIONAL TOTALS</b>	<b>2,552</b>	<b>99,514</b>	<b>70,654</b>	<b>0.71</b>	<b>35.46</b>	<b>33.90</b>
<b>SOUTHERN REGION</b>						
BEAVER	42	1,839	1,410	0.77	0.66	0.68
GARFIELD	22	827	674	0.81	0.29	0.32
IRON	83	3,003	2,084	0.69	1.07	1.00
KANE	(1)+	--	--	--	--	--
MILLARD	328	11,556	11,188	0.97	4.12	5.37
PIUTE	9	275	275	1.00	0.10	0.13
SEVIER	312	13,747	12,215	0.89	4.90	5.86
WASHINGTON	61	2,544	996	0.39	0.91	0.48
WAYNE	11	260	229	0.88	0.09	0.11
<b>REGIONAL TOTALS</b>	<b>868</b>	<b>34,055</b>	<b>29,074</b>	<b>0.85</b>	<b>12.14</b>	<b>13.95</b>
<b>NORTHEASTERN REGION</b>						
DAGGETT	(3)+	--	--	--	--	--
DUCHESNE	254	10,973	11,494	1.05	3.91	5.51
UINTAH	256	11,494	10,682	0.93	4.10	5.13
<b>REGIONAL TOTALS</b>	<b>510</b>	<b>22,469</b>	<b>22,177</b>	<b>0.99</b>	<b>8.01</b>	<b>10.64</b>
<b>SOUTHEASTERN REGION</b>						
CARBON	139	5,839	3,141	0.54	2.08	1.51
EMERY	124	5,302	3,034	0.57	1.89	1.46
GRAND	10	275	260	0.94	0.10	0.13
SAN JUAN	10	459	229	0.50	0.16	0.11
<b>REGIONAL TOTALS</b>	<b>283</b>	<b>11,877</b>	<b>6,666</b>	<b>0.56</b>	<b>4.23</b>	<b>3.20</b>
UNKNOWN	28	858	414	0.48	0.31	0.19
<b>STATE TOTALS</b>	<b>6,725</b>	<b>280,624</b>	<b>208,437</b>	<b>0.74</b>	<b>100.00</b>	<b>100.00</b>

\*Total hunter trips from questionnaire returns.

+Included in unknown counties because poor sample return inflated county harvest unreasonably high for known pheasant populations.

Table 10. Summary of pheasants bagged per hunter-day by region and county, 1975-82.

Region and County	Year							
	1975	1976	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>								
Box Elder	0.83	0.76	0.96	1.01	0.94	1.11	1.03	0.86
Cache	0.79	0.82	0.88	0.99	0.81	0.97	0.88	0.74
Davis	0.52	0.54	0.68	0.69	0.63	0.65	0.65	0.63
Morgan	0.24	0.87	0.73	0.78	0.60	0.56	0.57	0.64
Rich	0.56	0.00	0.33	1.86	0.00	0.00	0.00	0.00
Summit	0.50	0.00	0.00	0.40	0.00	0.00	0.00	0.00
Weber	0.59	0.66	0.76	0.70	0.71	0.77	0.72	0.63
<u>REGIONAL TOTALS</u>	0.66	0.68	0.81	0.83	0.77	0.86	0.84	0.71
<u>Central Region</u>								
Juab	0.38	0.59	0.68	0.79	0.87	1.00	0.89	0.76
Salt Lake	0.47	0.56	0.60	0.72	0.62	0.70	0.68	0.57
Sanpete	0.80	0.78	0.79	0.91	1.07	1.18	1.18	1.00
Tooele	0.47	0.71	0.55	0.81	0.58	0.73	0.65	0.43
Utah	0.58	0.73	0.78	0.83	0.82	0.92	0.91	0.73
Wasatch	0.22	0.54	0.50	2.00	0.00	0.00	0.00	0.00
<u>REGIONAL TOTALS</u>	0.56	0.68	0.71	0.81	0.79	0.90	0.89	0.71
<u>Southern Region</u>								
Beaver	0.58	0.70	0.74	0.97	0.56	0.86	1.06	0.77
Garfield	0.21	0.27	0.88	0.97	0.48	0.69	0.53	0.81
Iron	0.43	0.38	0.59	0.83	0.66	0.83	0.74	0.69
Kane	0.33	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Millard	0.73	0.71	0.79	1.06	1.04	1.24	1.02	0.97
Piute	0.40	0.73	0.56	0.97	0.95	0.88	0.85	1.00
Sevier	0.56	0.73	0.76	0.82	1.01	1.01	1.03	0.89
Washington	0.39	0.97	0.46	0.70	0.60	0.63	0.45	0.39
Wayne	0.00	0.71	0.40	1.00	1.17	1.43	0.67	0.88
<u>REGIONAL TOTALS</u>	0.58	0.72	0.72	0.91	0.93	1.03	0.95	0.85
<u>Northeastern Region</u>								
Daggett	2.25	1.40	0.00	1.00	0.00	0.00	0.00	0.00
Duchesne	0.76	1.08	1.09	1.41	1.13	1.13	1.09	1.05
Uintah	0.74	1.12	1.11	1.05	0.95	1.09	0.98	0.93
<u>REGIONAL TOTALS</u>	0.76	1.10	1.10	1.20	1.03	1.11	1.04	0.99
<u>Southeastern Region</u>								
Carbon	0.34	0.54	0.50	0.86	0.66	0.94	0.70	0.54
Emery	0.53	0.67	0.55	0.65	0.71	0.85	0.85	0.57
Grand	0.31	0.42	0.75	0.73	0.45	0.33	0.63	0.94
San Juan	0.31	0.56	0.33	0.57	0.33	0.29	0.68	0.50
<u>REGIONAL TOTALS</u>	0.46	0.61	0.54	0.72	0.68	0.87	0.78	0.56
Unknown Counties	0.83	0.74	0.70	0.85	0.84	1.17	0.77	0.48
Mixed Counties	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<u>STATE TOTALS</u>	0.61	0.71	0.78	0.86	0.81	0.91	0.88	0.74



Table 11. Percentage distribution of pheasant harvest by region and county, 1975-82.

Region and County	Year							
	1975	1976	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>								
Box Elder	13.05	10.10	11.45	11.06	12.04	12.35	12.94	12.40
Cache	8.75	9.13	8.28	8.55	6.93	7.94	8.66	7.07
Davis	8.73	7.99	8.97	8.47	8.15	7.61	5.33	8.27
Morgan	0.09	0.27	0.24	0.25	0.35	0.20	0.23	0.20
Rich	0.06	0.00	0.01	0.24	0.00	0.00	0.00	0.00
Summit	0.01	0.00	0.00	0.04	0.00	0.00	0.00	0.00
Weber	13.21	13.40	12.17	10.11	10.84	10.03	7.79	10.18
<b>REGIONAL TOTALS</b>	<b>43.91</b>	<b>40.89</b>	<b>41.12</b>	<b>38.71</b>	<b>38.31</b>	<b>38.13</b>	<b>34.95</b>	<b>38.12</b>
<u>Central Region</u>								
Juab	0.69	1.25	1.03	1.24	1.61	1.75	3.19	2.10
Salt Lake	8.73	7.65	7.51	8.19	7.14	6.29	4.88	5.96
Sanpete	6.03	5.59	4.68	4.44	6.87	7.17	7.28	7.47
Tooele	1.80	3.00	1.77	2.22	1.70	1.52	2.05	1.83
Utah	14.70	14.35	17.08	18.83	17.67	17.65	17.89	16.54
Wasatch	0.02	0.09	0.01	0.07	0.00	0.00	0.00	--
<b>REGIONAL TOTALS</b>	<b>31.97</b>	<b>31.94</b>	<b>32.08</b>	<b>35.00</b>	<b>34.99</b>	<b>34.38</b>	<b>35.29</b>	<b>33.90</b>
<u>Southern Region</u>								
Beaver	0.34	1.23	0.65	0.51	0.28	0.51	0.91	0.68
Garfield	0.05	0.04	0.07	0.26	0.09	0.07	0.08	0.32
Iron	0.98	0.55	0.48	0.92	0.52	0.88	1.08	1.00
Kane	0.03	0.01	0.00	0.00	0.00	0.00	0.00	--
Millard	5.23	3.71	4.02	4.69	5.46	5.76	7.77	5.37
Piute	0.07	0.25	0.10	0.30	0.13	0.22	0.30	0.13
Sevier	4.62	4.47	4.24	3.99	5.72	5.04	5.37	5.86
Washington	1.06	2.28	0.73	0.78	0.99	0.86	0.58	0.48
Wayne	0.00	0.13	0.04	0.09	0.14	0.07	0.09	0.11
<b>REGIONAL TOTALS</b>	<b>12.38</b>	<b>12.68</b>	<b>10.34</b>	<b>11.53</b>	<b>13.33</b>	<b>13.43</b>	<b>16.17</b>	<b>13.95</b>
<u>Northeastern Region</u>								
Daggett	0.10	0.09	0.00	0.07	0.00	0.00	0.00	--
Duchesne	2.86	4.00	5.85	5.61	5.25	4.69	4.60	5.51
Uintah	4.24	4.39	5.27	5.63	5.24	5.00	3.99	5.13
<b>REGIONAL TOTALS</b>	<b>8.24</b>	<b>8.49</b>	<b>11.12</b>	<b>11.31</b>	<b>10.49</b>	<b>9.69</b>	<b>8.58</b>	<b>10.64</b>
<u>Southeastern Region</u>								
Carbon	0.87	0.95	0.79	1.04	0.85	1.60	1.73	1.51
Emery	2.69	2.34	1.80	1.43	1.66	2.50	2.84	1.46
Grand	0.05	0.11	0.06	0.10	0.03	0.01	0.11	0.13
San Juan	0.05	0.07	0.02	0.04	0.03	0.01	0.12	0.11
<b>REGIONAL TOTALS</b>	<b>3.65</b>	<b>3.46</b>	<b>2.68</b>	<b>2.61</b>	<b>2.57</b>	<b>4.13</b>	<b>4.80</b>	<b>3.20</b>
Unknown Counties	1.04	2.55	2.68	0.84	0.31	0.24	0.21	0.19
Mixed Counties	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>STATE TOTALS</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 12. Percentage distribution of pheasant hunting pressure by county hunted, 1975-82.

Region and County	Year							
	1975	1976	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>								
Box Elder	9.61	9.39	9.22	9.37	10.37	10.20	11.07	10.77
Cache	6.75	7.90	7.25	7.42	6.95	7.51	8.65	7.11
Davis	10.24	10.54	10.24	10.52	10.48	10.71	7.24	9.83
Morgan	0.23	0.22	0.26	0.28	0.48	0.33	0.33	0.23
Rich	0.06	0.02	0.02	0.11	0.00	0.00	0.00	--
Summit	0.01	0.01	0.01	0.08	0.00	0.00	0.00	--
Weber	13.70	14.28	12.35	12.30	12.42	11.91	9.62	11.92
<b>REGIONAL TOTALS</b>	<b>40.60</b>	<b>42.35</b>	<b>39.35</b>	<b>40.07</b>	<b>40.70</b>	<b>40.66</b>	<b>36.93</b>	<b>39.86</b>
<u>Central Region</u>								
Juab	1.12	1.49	1.17	1.35	1.50	1.60	3.16	2.05
Salt Lake	11.37	9.70	9.70	9.71	9.40	8.21	6.34	7.74
Sanpete	4.62	5.08	4.60	4.18	5.23	5.57	5.46	5.55
Tooele	2.33	2.98	2.50	2.34	2.38	1.89	2.77	3.18
Utah	15.42	13.95	16.95	19.43	17.48	17.64	17.30	16.94
Wasatch	0.06	0.12	0.02	0.03	0.00	0.00	0.00	--
<b>REGIONAL TOTALS</b>	<b>34.92</b>	<b>33.32</b>	<b>34.93</b>	<b>37.03</b>	<b>35.99</b>	<b>34.91</b>	<b>35.03</b>	<b>35.46</b>
<u>Southern Region</u>								
Beaver	0.36	1.25	0.68	0.45	0.40	0.54	0.74	0.66
Garfield	0.13	0.10	0.06	0.23	0.15	0.09	0.14	0.29
Iron	1.40	1.01	0.62	0.95	0.65	0.97	1.28	1.07
Kane	0.06	0.01	0.00	0.00	0.00	0.00	0.00	--
Millard	4.42	3.67	3.95	3.80	4.29	4.24	6.74	4.12
Piute	0.10	0.25	0.14	0.26	0.11	0.23	0.31	0.10
Sevier	5.04	4.35	4.31	4.15	4.62	4.57	4.60	4.90
Washington	1.65	1.66	1.24	0.96	1.33	1.24	1.14	0.91
Wayne	0.01	0.13	0.08	0.08	0.10	0.05	0.12	0.09
<b>REGIONAL TOTALS</b>	<b>13.18</b>	<b>12.44</b>	<b>11.08</b>	<b>10.89</b>	<b>11.65</b>	<b>11.93</b>	<b>15.07</b>	<b>12.14</b>
<u>Northeastern Region</u>								
Daggett	0.03	0.05	0.00	0.06	0.00	0.00	0.00	--
Duchesne	2.29	2.63	4.15	3.41	3.79	3.78	3.71	3.91
Uintah	3.38	2.78	3.67	4.58	4.48	4.20	3.59	4.10
<b>REGIONAL TOTALS</b>	<b>5.70</b>	<b>5.45</b>	<b>7.82</b>	<b>8.05</b>	<b>8.28</b>	<b>7.98</b>	<b>7.30</b>	<b>8.01</b>
<u>Southeastern Region</u>								
Carbon	1.56	1.25	1.22	1.03	1.05	1.57	2.18	2.08
Emery	3.09	2.47	2.52	1.90	1.91	2.67	2.95	1.89
Grand	0.09	0.18	0.06	0.12	0.06	0.04	0.15	0.10
San Juan	0.09	0.09	0.05	0.05	0.07	0.05	0.15	0.16
<b>REGIONAL TOTALS</b>	<b>4.82</b>	<b>3.99</b>	<b>3.86</b>	<b>3.10</b>	<b>3.09</b>	<b>4.33</b>	<b>5.43</b>	<b>4.23</b>
Unknown Counties	0.77	2.45	2.95	0.84	0.32	0.19	0.24	0.31
Mixed Counties	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00
<b>STATE TOTALS</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 13. Statewide summary of pheasant harvest statistics, 1948-1982.

Year	Total Hunters	Total Harvest	Hunters-days Afield	Pheasants Per Hunter-day	Pheasants Per Hunter
1948	96,534	280,914	--	--	2.91
1949	88,369	263,340	189,453	1.39	2.98
1950	92,724	249,428	235,309	1.06	2.69
1951	76,576	246,575	171,233	1.44	3.22
1952	78,773	246,559	185,383	1.33	3.13
1953	82,595	245,307	176,480	1.39	2.97
1954	82,370	260,289	201,774	1.29	3.16
1955	78,793	196,195	178,359	1.10	2.49
1956	77,826	206,239	182,512	1.13	2.65
1957	83,025	228,319	170,387	1.34	2.75
1958	88,290	309,015	220,725	1.40	3.50
1959	86,268	243,276	202,730	1.21	2.82
1960	81,976	232,812	177,719	1.31	2.84
1961	83,493	238,439	243,305	0.98	2.86
1962	86,336	262,448	209,921	1.25	3.04
1963	87,647	297,873	198,582	1.50	3.40
1964	88,242	225,775	196,314	1.15	2.56
1965	77,409	211,876	186,215	1.14	2.74
1966	78,721	249,814	209,082	1.19	3.17
1967	85,664	284,000	257,033	1.10	3.32
1968	90,453	297,752	267,788	1.11	3.29
1969	90,573	250,241	277,887	0.90	2.76
1970	78,585	250,503	244,958	1.02	3.19
1971	87,878	259,189	294,618	0.88	2.95
1972	84,311	240,573	327,669	0.73	2.85
1973	75,968	196,012	278,033	0.70	2.58
1974	85,252	167,408	282,294	0.59	1.96
1975	77,566	143,783	234,615	0.61	1.85
1976	74,029	151,476	214,023	0.71	2.05
1977	67,195	148,168	191,142	0.78	2.21
1978	83,800	220,398	257,305	0.86	2.63
1979	87,462	216,700	266,245	0.81	2.48
1980	84,868	228,442	249,770	0.91	2.69
1981	83,408	234,217	265,381	0.88	2.81
1982	85,368	208,437	280,624	0.74	2.44
<hr/>					
TOTALS (1948-82)	2,918,347	8,191,792	7,724,868	1.06	2.81
<hr/>					
AVERAGES (1948-81)	83,323	234,805	218,948	1.07	2.82

Table 14. Pheasant field bag check summary, 1982.

Region and County	ALL HUNTS				COMPLETE HUNTS					
	Total Parties	Total Hunters	Total Hours	Total Birds/100 Hr	Total Complete Hunts	Total Hunters	Total Hours	Total Birds/100 Hr	Birds/Hunter	
<u>Northern Region</u>										
Box Elder	336	717	1,858	316	17	658	1,768	290	16	0.44
Cache	42	108	285	23	8	42	151	15	10	0.36
Davis	158	378	756	111	15	173	414	58	14	0.34
Morgan	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--
Weber	45	117	237	41	17	56	118	22	19	0.39
<b>REGIONAL TOTALS</b>	<b>581</b>	<b>1,320</b>	<b>3,136</b>	<b>491</b>	<b>16</b>	<b>929</b>	<b>2,451</b>	<b>385</b>	<b>16</b>	<b>0.41</b>
<u>Central Region</u>										
Juab	6	31	48	10	21	31	48	10	21	0.32
Salt Lake	6	30	102	5	5	3	18	5	28	1.66
Sanpete	68	294	971	215	22	86	389	96	25	1.12
Tooele	34	85	203	55	27	7	11	13	118	1.86
Utah	171	411	1,134	165	15	173	486	101	21	0.58
Wasatch	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>285</b>	<b>851</b>	<b>2,458</b>	<b>450</b>	<b>18</b>	<b>300</b>	<b>952</b>	<b>225</b>	<b>24</b>	<b>0.75</b>
<u>Southern Region</u>										
Beaver	10	31	137	28	20	24	133	26	20	1.08
Garfield	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--
Millard	251	649	2,110	271	13	232	788	93	12	0.40
Piute	--	--	--	--	--	--	--	--	--	--
Sevier	118	415	1,414	289	20	162	676	149	22	0.92
Washington	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>379</b>	<b>1,095</b>	<b>3,661</b>	<b>588</b>	<b>16</b>	<b>418</b>	<b>1,600</b>	<b>268</b>	<b>17</b>	<b>0.64</b>
<u>Northeastern Region</u>										
Daggett	--	--	--	--	--	--	--	--	--	--
Duchesne	178	442	3,106	474	15	257	2,562	380	15	1.48
Uintah	131	340	1,793	289	16	191	1,469	231	16	1.21
<b>REGIONAL TOTALS</b>	<b>309</b>	<b>782</b>	<b>4,899</b>	<b>763</b>	<b>16</b>	<b>448</b>	<b>4,031</b>	<b>611</b>	<b>15</b>	<b>1.36</b>
<u>Southeastern Region</u>										
Carbon	--	--	--	--	--	--	--	--	--	--
Emery	42	132	396	79	20	57	186	36	19	0.63
Grand	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>42</b>	<b>132</b>	<b>396</b>	<b>79</b>	<b>20</b>	<b>57</b>	<b>186</b>	<b>36</b>	<b>19</b>	<b>0.63</b>
<b>STATE TOTALS</b>	<b>1,596</b>	<b>4,180</b>	<b>14,550</b>	<b>2,371</b>	<b>16</b>	<b>2,152</b>	<b>9,220</b>	<b>1,525</b>	<b>17</b>	<b>0.71</b>

Table 15. Pheasant hunter success trend as determined by field bag check, 1977-82.

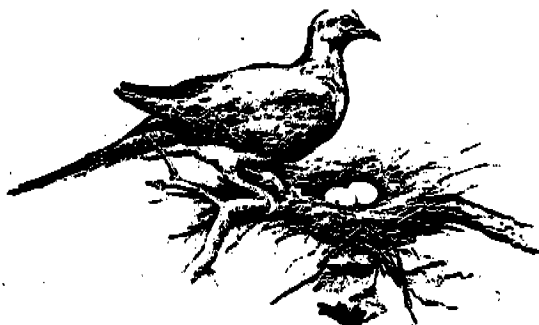
Region and County	1977		1978		1979		1980		1981		1982	
	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ Hunter
<u>Northern Region</u>												
Box Elder	18	0.54	24	0.62	27	0.68	26	0.62	23	0.57	16	0.44
Cache	17	0.63	17	0.62	--	--	27	0.97	--	--	10	0.36
Davis	9	0.25	19	0.54	19	0.75	13	0.33	4	0.24	14	0.34
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	13	0.75	16	1.25	--	--	22	0.89	21	0.72	19	0.39
REGIONAL TOTALS	16	0.51	21	0.61	25	0.69	24	0.62	18	0.56	16	0.41
<u>Central Region</u>												
Juab	27	0.67	82	0.75	24	0.61	22	0.44	16	0.44	21	0.32
Salt Lake	4	0.07	3	0.05	0	0.00	--	--	10	0.45	28	1.66
Sanpete	27	0.73	17	0.71	55	1.40	19	0.95	25	1.15	25	1.12
Tooele	67	2.00	167	2.00	160	2.00	120	2.00	67	1.75	118	1.86
Utah	25	0.66	27	0.80	34	0.91	27	0.80	32	0.94	21	0.58
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	23	0.59	24	0.73	38	0.99	25	0.83	28	0.99	24	0.75
<u>Southern Region</u>												
Beaver	43	0.67	12	0.33	24	0.95	--	--	25	0.86	20	1.08
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	17	0.67	43	1.25	37	1.13	25	0.75	26	1.08	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	10	0.37	19	0.62	21	0.83	28	0.90	20	0.75	12	0.40
Plute	--	--	25	0.50	--	--	--	--	--	--	--	--
Sevier	20	1.00	23	1.04	31	0.99	29	1.17	32	1.33	22	0.92
Washington	12	0.29	32	0.59	60	1.00	25	0.64	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	5	0.98	--	--
REGIONAL TOTALS	13	0.50	21	0.75	23	0.87	28	0.98	23	0.91	17	0.64
<u>Northeastern Region</u>												
Daggett	--	--	--	--	--	--	--	--	--	--	--	--
Duchesne	16	1.14	18	1.37	15	0.97	18	1.21	20	1.48	15	1.48
Uintah	15	1.01	20	1.48	19	0.26	19	0.61	15	0.98	16	1.21
REGIONAL TOTALS	16	1.10	19	1.41	17	1.07	19	1.04	18	1.29	15	1.36
<u>Southeastern Region</u>												
Carbon	11	0.25	18	0.41	27	0.74	18	0.47	--	--	--	--
Emery	21	0.75	10	0.72	29	0.83	22	0.83	11	0.31	19	0.63
Grand	--	--	--	--	--	--	--	--	17	0.33	--	--
San Juan	0	0.00	40	1.00	0	0.00	--	0.00	--	--	--	--
REGIONAL TOTALS	18	0.58	12	0.58	28	0.79	21	0.75	12	0.31	19	0.63
STATE TOTALS	16	0.66	20	0.88	22	0.89	22	0.84	20	0.90	17	0.71

Table 16. Indices of pheasant habitat loss by summer roadside route, 1982.

Route Name	County	Observer	Structures/Mile
Bluff	San Juan		
Brigham City	Box Elder		
North Cache	Cache		
South Cache	Cache		
Carbon	Carbon		
Davis	Davis		
Delta	Millard		
Dragerton	Carbon		
South Duchesne	Duchesne	Sorenson	3.8
East Duchesne	Duchesne	Bingham	2.1
Emery	Emery		
Fillmore	Millard		
Grand	Grand		
Green River	Carbon		
Hanksville	Wayne		
Hurricane	Washington		
West Iron	Iron		
Juab	Juab		
Millford	Beaver		
Roosevelt	Duchesne	Penrose	2.6
North Salt Lake	Salt Lake		
South Salt Lake	Salt Lake		
North Sanpete	Sanpete		
South Sanpete	Sanpete		
Sevier	Sevier		
Tooele	Tooele		
Tremonton	Box Elder		
North Utah	Utah		
North Central Utah	Utah		
South Utah	Utah		
South Central Utah	Utah		
East Vernal	Uintah	Olson	11.3
West Vernal	Uintah	Schiif	8.1
West Weber	Weber		

# MIGRATORY UPLAND GAME BIRDS

## SUMMARY



### Mourning Doves

The breeding density index decreased significantly in 1982 and was well below average. Perhaps this was due to cold and wet weather over much of the state in April and May.

Harvest statistics derived from the questionnaire showed average hunter pressure. Harvest decreased compared to 1981. Hunter success decreased 14 percent even though bag and possession limits were increased to 15 and 30 respectively.

Field bag checks indicated a significant decrease in hunter success like the questionnaire survey.

Division personnel collected 3,143 wings for aging during 1982. Aging of wings indicated juvenile per 100 adult ratio increased to 91 compared to 87 in 1981, and the 15-year average of 118. More of the juvenile birds harvested were hatched earlier than in 1981.

### Band-tailed Pigeons

No band-tailed pigeons were banded in Utah in 1982. Banding of band-tailed pigeons was discontinued in 1979, as a result of recommendations by the Four-Corners Band-tailed Pigeon Study Committee.

Hunter participation during the 1982 season remained at a low level with only 51 hunters afield. Total harvest increased from 1981, but remained below average. Total harvest was 113 pigeons, compared to 101 in 1981.



## MOURNING DOVE

### Call Count Survey

Results of the 1982 call count survey are found in Table 1 of this section. The long-term trend of the state's breeding density index (average doves heard per route) is shown in Table 2. Indices shown in each of these tables are unweighted and consequently differ from those published in the annual Mourning Dove Status Report compiled by the Fish and Wildlife Service; however, indicated trends are similar (Figure 1). The following is a comparison of the results of the 1982 survey to 1981 and the average for the period 1964-1981:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Average doves heard per route	9.8	-30	-30
Average calls heard per route	42.1	-37	-29
Average doves seen per route	6.6	-62	-55

Coo count data indicated decreased breeding activity in late May compared to 1981 and continued to be below the long-term average.

### Harvest

#### Hunter Questionnaire

Information obtained from the hunter questionnaire for 1982 is summarized in Table 3. Long-term trends of mourning doves bagged per hunter-day, percent of harvest and percent of pressure (hunter-days) by county are found in Tables 4-6 and total statewide harvest statistics in Table 7. The following is a comparison of the harvest statistics for 1982 compared to 1981 and the 10-year (1972-81) average:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Mourning dove hunters	31,756	+6	-1
Mourning dove harvest	282,188	-9	-13
Hunter-days afield	107,728	+6	0
Mourning doves per hunter-day	2.62	-14	-12
Mourning doves hunter	8.89	-14	-12

Harvest decreased from 1981 and was below the previous ten year average. Hunter success also decreased even though the bag and possession limits were increased to 15 and 30, respectively.

Long-term harvest trends are depicted in Figure 2.



### Field Bag Checks

A summary of field bag check data for 1982 is shown in Table 8. Hunter success trends determined via this method are shown in Table 9. Results of the 1982 survey compared to 1981 and the average (1967-81) follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Total hunters checked	1,692	-27	-10
Total hours hunted	6,210	-30	-3
Doves per hunter (complete hunts)	3.98	-8	+14
Doves bagged per 100 hours	84	-13	-10
Average hours per hunter-day (complete hunts)	3.2	-22	-14
Hours hunted per dove bagged	0.8	-11	-27

Field bag checks indicated a significant increase in hunter success. This contradicts the questionnaire results which indicated a decrease in hunter success. The total number of hunters checked was down 27 percent from 1981. Dove hunters spent less amount of time afield per hunter-day than in 1981, and less time was spent per dove bagged, according to field bag check data.

### Age Composition of the Harvest

A summary of the age composition of harvested mourning doves from 1973 through 1982 is contained in Table 10. Hatching dates for immature doves harvested in the Northern Region since 1973 are shown in Table 11. Hatching dates for immature doves harvested in Utah in 1982 are shown in Table 12.

Following is a comparison of data collected in 1982 to 1981 and long-term averages (1966-81):

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Sample size	3,143	-22	-5
Immatures/100 adults	91	+5	-23
Percent of immatures hatched on: (N. Region)			
August 3 or later	32.6	-29	-18
July 25 or later	79.2	-16	-2
Before July 25	20.8	+235	+8

Fewer wings were collected for aging during the 1982 season compared to 1981. The 91 immatures per 100 adults ratio indicated a more successful hatch than 1981 and was well below average. Wing analysis indicated earlier hatching for 1982 compared with 1981.

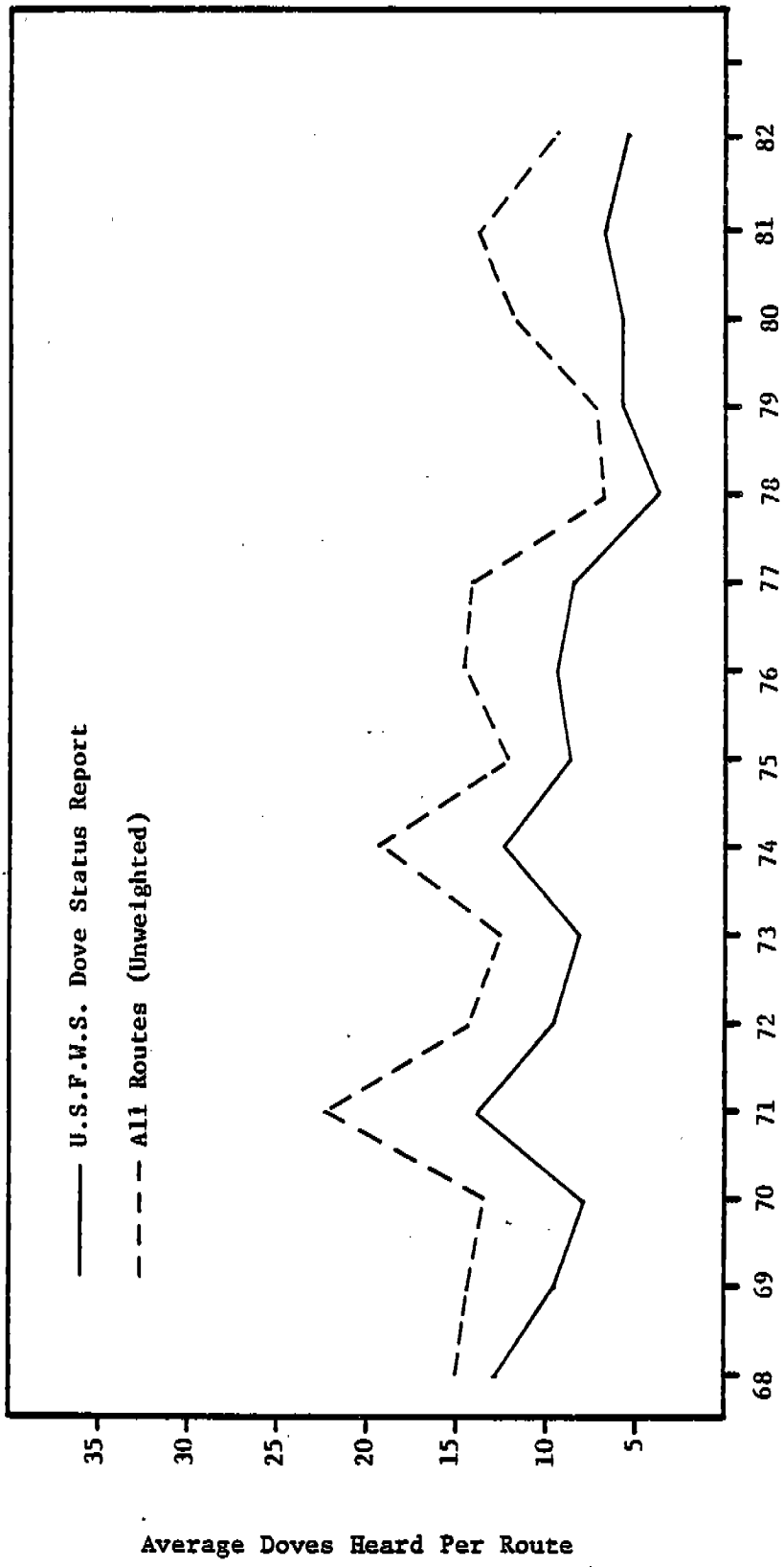


Figure 1. Mourning dove breeding density index trend.

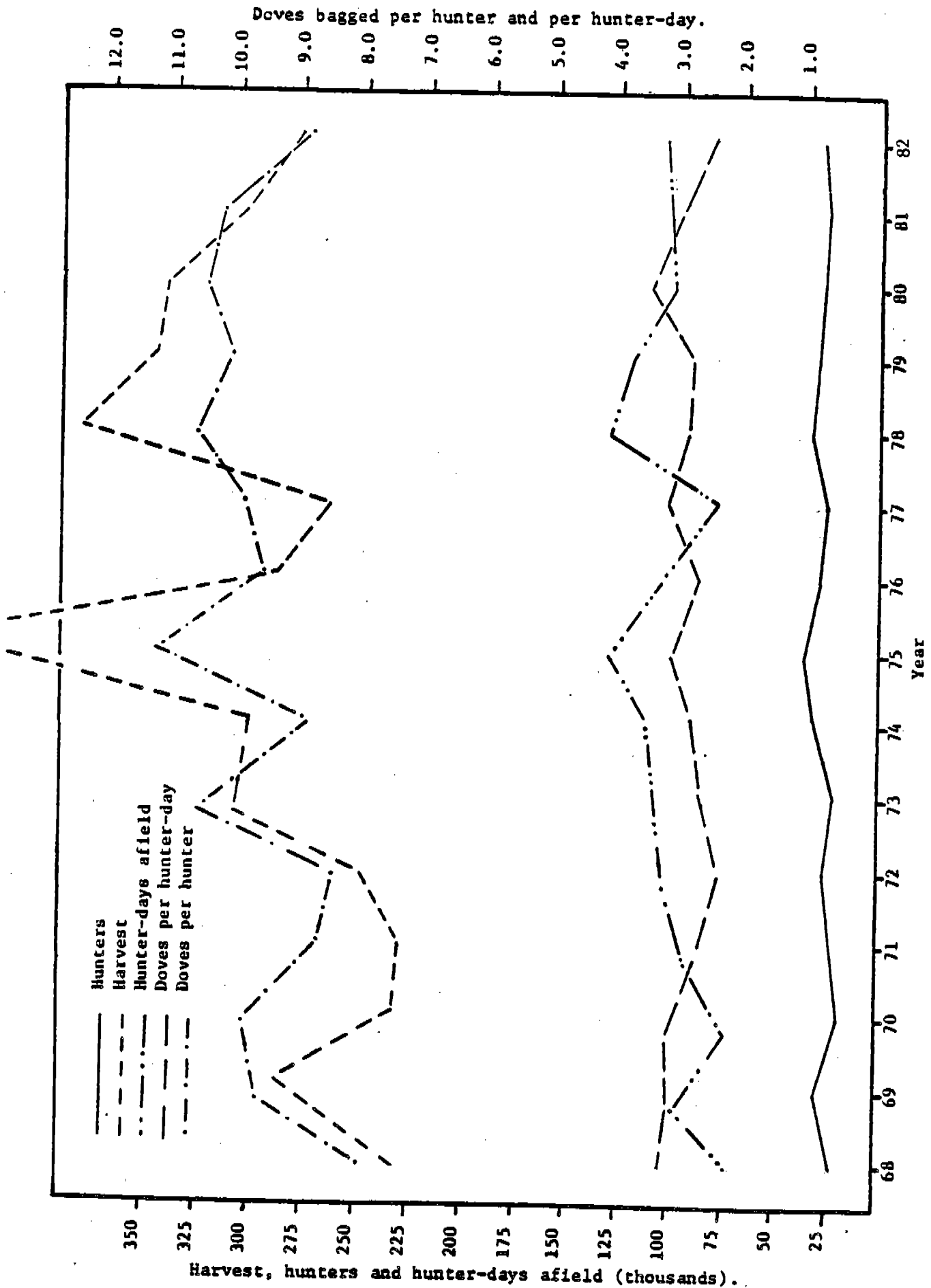


Figure 2. Statewide trends of mourning dove harvest statistics.

Table 1. Summary of the mourning dove call-count survey for 1982.

Region and County	Route Number	Total Doves Heard Per Route	Total Calls Heard Per Route	Total Doves Seen Per Route
<u>Northern Region</u>				
Summit	R1020	5	17	3
Box Elder	R1500	--	--	--
<b>REGIONAL TOTALS</b>		5	17	3
<u>Central Region</u>				
Juab	R2830	9	37	0
<b>REGIONAL TOTALS</b>		9	37	0
<u>Southern Region</u>				
Sevier-Sanpete	R0370	0	0	0
Wayne-Sevier	R0660	4	37	0
Garfield	R1090	2	15	0
Millard	R3640	9	35	0
Beaver	R3820	13	61	17
Iron	R4000	21	116	7
Washington	R4310	0	0	1
<b>REGIONAL TOTALS</b>		49	264	25
<u>Northeastern Region</u>				
Duchesne	R0080	7	15	1
Uintah	* R0220	1	7	3
<b>REGIONAL TOTALS</b>		8	22	4
<u>Southeastern Region</u>				
Emery	R0540	7	33	9
San Juan	R1170	26	115	45
San Juan	* R1450	24	59	0
<b>REGIONAL TOTALS</b>		57	207	54
<b>STATE TOTALS</b>		128	547	86
<b>STATE AVERAGE</b>		9.8	42.1	6.6
<b>PERCENT CHANGE (from previous year)</b>		-29.5	-37.0	-66.2

\*New route location

Table 2. Regional and county summary of mourning dove breeding population trend as indicated by the number of doves heard per route during random call count surveys, 1971-82.

Region and County	Route Number	Number of Doves Heard Per Route											
		1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>													
Summit	R1020	10	7	3	3	3	11	10	5	6	5	4	5
Box Elder	R1500	4	2	5	3	5	1	4	2	9	4	8	--
REGIONAL TOTALS		14	9	8	6	8	12	14	7	15	9	12	5
<u>Central Region</u>													
Juab	R2830	32	6	17	16	13	28	25	31	15	31	22	9
REGIONAL TOTALS		32	6	17	16	13	28	25	31	15	31	22	9
<u>Southern Region</u>													
Sevier-Sanpete	R0370	1	0	0	0	0	0	2	0	0	3	0	0
Wayne-Sevier	R0660	11	20	11	16	7	5	8	1	2	5	14	4
Garfield	R1090	14	29	0	0	0	3	1	0	0	0	9	2
Millard	R3640	17	19	24	22	21	6	29	8	4	2	10	9
Beaver	R3820	12	13	6	24	0	0	0	0	5	9	7	13
Iron	R4000	24	20	35	103	42	45	27	12	14	40	36	21
Washington	R4310	64	61	26	32	37	19	15	1	4	3	6	0
REGIONAL TOTALS		143	162	102	197	107	78	82	22	29	62	82	49
<u>Northeastern Region</u>													
Duchesne	R0080	16	8	3	14	9	11	14	2	2	1	13	7
Uintah	R0220	66	4	18	12	7	27	7	4	--	49	19	1
REGIONAL TOTALS		82	12	21	26	16	38	21	6	2	50	32	8
<u>Southeastern Region</u>													
Emery	R0540	10	1	27	4	6	14	4	10	9	7	22	7
San Juan	R1170	60	24	17	41	32	51	67	24	28	14	38	26
San Juan	R1450	*	*	*	*	*	2	1	3	1	3	0	24
REGIONAL TOTALS		70	25	44	45	38	67	72	37	38	24	60	57
STATE TOTALS		341	214	192	290	182	223	214	103	99	176	208	128
STATE AVERAGES		22.7	14.3	12.8	19.3	12.1	14.9	14.3	6.9	7.1	11.7	13.9	9.8
PERCENT CHANGE (from previous year)		+69	-37	-10	+51	-37	+23	-4	-52	+3	+65	+18	-30

\*Automatic zero.

Table 3. Summary of mourning dove hunter success and distribution of harvest and hunting pressure by region and county, 1982.

Region and County	Sample Size*	Hunter-days Afield	Birds Bagged	Birds per Hunter-day	% of Pressure	% of Harvest
<b>NORTHERN REGION</b>						
BOX ELDER	225	7,816	29,242	3.74	7.26	10.36
CACHE	84	3,724	8,046	2.16	3.46	2.85
DAVIS	96	5,057	7,709	1.52	4.69	2.73
MORGAN	19	750	3,586	4.78	0.70	1.27
RICH	9	459	720	1.57	0.43	0.26
SUMMIT	15	582	1,364	2.34	0.54	0.48
WEBER	137	8,306	16,000	1.93	7.71	5.67
<b>REGIONAL TOTALS</b>	<b>585</b>	<b>26,698</b>	<b>66,669</b>	<b>2.50</b>	<b>24.78</b>	<b>23.63</b>
<b>CENTRAL REGION</b>						
JUAB	167	6,176	22,483	3.64	5.73	7.97
SALT LAKE	223	10,667	20,108	1.89	9.90	7.13
SANPETE	73	3,019	7,494	2.48	2.80	2.66
TOOELE	200	9,180	23,326	2.54	8.52	8.27
UTAH	451	20,383	42,883	2.10	18.92	15.20
WASATCH	17	1,164	1,624	1.39	1.08	0.58
<b>REGIONAL TOTALS</b>	<b>1,131</b>	<b>50,592</b>	<b>117,920</b>	<b>2.33</b>	<b>46.96</b>	<b>41.79</b>
<b>SOUTHERN REGION</b>						
BEAVER	25	1,593	7,617	4.78	1.48	2.70
GARFIELD	12	796	3,310	4.15	0.74	1.17
IRON	50	2,298	7,448	3.24	2.13	2.64
KANE	4	122	306	2.50	0.11	0.11
MILLARD	118	4,276	19,188	4.49	3.97	6.80
PIUTE	5	122	76	0.63	0.11	0.03
SEVIER	74	3,785	9,517	2.51	3.51	3.37
WASHINGTON	49	3,141	9,165	2.92	2.92	3.25
WAYNE	13	383	980	2.56	0.36	0.35
<b>REGIONAL TOTALS</b>	<b>350</b>	<b>16,521</b>	<b>57,611</b>	<b>3.49</b>	<b>15.34</b>	<b>20.42</b>
<b>NORTHEASTERN REGION</b>						
DAGGETT	4	183	429	2.33	0.17	0.15
DUCHESNE	46	2,099	6,498	3.09	1.95	2.30
UINTAH	62	2,835	7,111	2.51	2.63	2.52
<b>REGIONAL TOTALS</b>	<b>112</b>	<b>5,118</b>	<b>14,038</b>	<b>2.74</b>	<b>4.75</b>	<b>4.98</b>
<b>SOUTHEASTERN REGION</b>						
CARBON	66	3,555	11,126	3.13	3.30	3.94
EMERY	44	2,375	5,640	2.37	2.21	2.00
GRAND	19	1,134	3,387	2.99	1.05	1.20
SAN JUAN	26	1,455	5,364	3.68	1.35	1.90
<b>REGIONAL TOTALS</b>	<b>155</b>	<b>8,521</b>	<b>25,518</b>	<b>2.99</b>	<b>7.91</b>	<b>9.04</b>
UNKNOWN	5	275	429	1.56	0.26	0.15
<b>STATE TOTALS</b>	<b>2,338</b>	<b>107,728</b>	<b>282,188</b>	<b>2.62</b>	<b>100.00</b>	<b>100.00</b>

\*Total hunter trips from questionnaire returns.

Table 4. Summary of mourning doves bagged per hunter-day by region and county, 1975-82.

Region and County	Year							
	1975	1976	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>								
Box Elder	4.74	3.55	3.92	3.60	3.76	4.97	3.04	3.74
Cache	2.62	2.26	2.84	1.98	2.47	2.77	2.83	2.16
Davis	1.70	1.54	1.81	1.49	1.34	1.79	1.59	1.52
Morgan	3.14	2.58	3.87	2.10	3.14	2.91	2.73	4.78
Rich	2.89	1.53	0.82	4.19	1.71	2.00	3.00	1.57
Summit	2.73	1.52	5.69	1.86	3.36	4.71	3.19	2.34
Weber	1.78	1.67	1.97	1.66	1.91	2.29	2.18	1.93
<b>REGIONAL TOTALS</b>	<b>2.89</b>	<b>2.39</b>	<b>2.91</b>	<b>2.38</b>	<b>2.53</b>	<b>3.31</b>	<b>2.57</b>	<b>2.50</b>
<u>Central Region</u>								
Juab	5.30	4.11	5.07	4.46	4.38	4.70	3.82	3.64
Salt Lake	2.35	2.16	2.58	2.13	2.28	2.33	2.65	1.89
Sanpete	2.65	3.15	4.16	2.73	2.61	3.64	3.23	2.48
Tooele	3.70	3.53	3.26	3.19	2.53	3.43	2.30	2.54
Utah	2.50	2.30	2.92	2.39	2.22	3.08	2.96	2.10
Wasatch	3.12	1.83	2.50	2.89	2.59	3.45	1.46	1.39
<b>REGIONAL TOTALS</b>	<b>2.98</b>	<b>2.71</b>	<b>3.20</b>	<b>2.73</b>	<b>2.62</b>	<b>3.23</b>	<b>2.86</b>	<b>2.33</b>
<u>Southern Region</u>								
Beaver	5.37	2.87	5.27	5.67	4.94	5.03	4.86	4.78
Garfield	5.35	2.44	1.04	1.70	4.56	5.17	4.02	4.15
Iron	4.09	4.45	4.00	4.48	4.52	5.02	4.42	3.24
Kane	4.92	3.52	3.05	5.08	4.17	5.86	4.71	2.50
Millard	4.73	3.78	4.62	5.13	4.92	5.43	4.11	4.49
Piute	3.30	2.59	3.10	2.60	2.18	3.90	4.05	0.63
Sevier	3.67	2.47	3.66	2.52	2.91	3.63	2.30	2.51
Washington	5.05	2.70	4.84	3.90	3.25	3.73	4.19	2.92
Wayne	4.10	4.93	6.40	3.64	6.04	2.93	3.76	2.56
<b>REGIONAL TOTALS</b>	<b>4.36</b>	<b>3.26</b>	<b>4.23</b>	<b>3.88</b>	<b>4.05</b>	<b>4.58</b>	<b>3.85</b>	<b>3.49</b>
<u>Northeastern Region</u>								
Daggett	4.63	5.00	3.44	3.40	2.79	1.50	1.00	2.33
Duchesne	3.55	4.76	2.65	3.43	3.13	3.07	3.76	3.09
Uintah	3.03	2.27	3.10	2.70	2.96	3.44	1.81	2.51
<b>REGIONAL TOTALS</b>	<b>3.21</b>	<b>3.01</b>	<b>2.94</b>	<b>3.01</b>	<b>3.01</b>	<b>3.22</b>	<b>2.43</b>	<b>2.74</b>
<u>Southeastern Region</u>								
Carbon	2.87	2.31	2.25	2.85	3.14	3.88	3.42	3.13
Emery	1.93	2.86	2.88	3.00	2.54	3.04	3.62	2.37
Grand	3.68	1.94	1.26	4.00	3.68	4.66	4.12	2.99
San Juan	3.21	2.24	3.88	4.09	3.97	3.80	3.75	3.68
<b>REGIONAL TOTALS</b>	<b>2.73</b>	<b>2.41</b>	<b>2.61</b>	<b>3.40</b>	<b>3.09</b>	<b>3.69</b>	<b>3.75</b>	<b>2.99</b>
Unknown counties	4.18	3.45	2.13	3.46	5.09	5.00	0.64	1.56
Mixed counties	--	--	10.00	2.00	0.00	0.00	0.00	0.00
<b>STATE TOTALS</b>	<b>3.20</b>	<b>2.74</b>	<b>3.21</b>	<b>2.95</b>	<b>2.92</b>	<b>3.52</b>	<b>3.05</b>	<b>2.62</b>

Table 5. Percentage distribution of mourning dove harvest by region and county, 1975-82.

Region and County	Year							
	1975	1976	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>								
Box Elder	9.86	9.82	8.44	8.10	10.01	10.46	8.89	10.36
Cache	3.50	4.19	2.64	2.71	3.00	2.12	2.77	2.85
Davis	1.68	2.16	1.81	1.61	2.39	1.38	1.90	2.73
Morgan	1.02	0.96	1.55	0.65	1.03	0.96	1.05	1.27
Rich	0.30	0.33	0.08	0.59	0.22	0.27	0.23	0.26
Summit	0.35	0.41	1.16	0.36	0.19	0.16	0.46	0.48
Weber	3.74	3.39	3.72	3.07	3.78	3.72	3.37	5.67
<b>REGIONAL TOTALS</b>	<b>20.43</b>	<b>21.26</b>	<b>19.40</b>	<b>17.08</b>	<b>20.63</b>	<b>19.07</b>	<b>18.66</b>	<b>23.62</b>
<u>Central Region</u>								
Juab	9.64	6.98	7.62	8.88	9.55	9.25	6.99	7.97
Salt Lake	8.02	7.67	8.49	7.16	9.39	7.89	7.09	7.12
Sanpete	2.10	5.31	3.31	3.87	4.34	3.94	2.59	2.65
Tooele	6.83	8.39	7.15	6.18	5.57	7.55	5.31	8.27
Utah	16.31	16.70	16.40	16.20	12.73	14.92	17.37	15.20
Wasatch	0.83	0.37	0.56	0.66	0.63	0.80	0.78	0.58
<b>REGIONAL TOTALS</b>	<b>43.73</b>	<b>45.42</b>	<b>43.54</b>	<b>42.95</b>	<b>42.22</b>	<b>44.35</b>	<b>40.13</b>	<b>41.79</b>
<u>Southern Region</u>								
Beaver	2.03	2.00	2.55	1.68	1.62	1.69	1.70	2.60
Garfield	0.64	0.30	0.15	0.65	1.11	1.07	1.54	1.17
Iron	3.96	4.40	3.97	4.20	2.60	2.60	4.20	2.64
Kane	0.49	1.10	0.38	0.98	0.80	0.40	1.36	0.11
Millard	5.30	5.92	7.27	9.28	10.84	8.55	7.73	6.80
Piute	0.42	1.10	0.37	0.81	0.45	0.60	1.03	0.03
Sevier	6.07	4.01	4.83	4.26	5.23	3.63	2.91	3.37
Washington	4.31	2.38	3.82	2.91	2.45	3.39	3.16	3.25
Wayne	0.66	1.00	0.36	0.86	1.25	0.22	0.64	0.35
<b>REGIONAL TOTALS</b>	<b>23.89</b>	<b>22.21</b>	<b>23.70</b>	<b>25.63</b>	<b>26.36</b>	<b>22.15</b>	<b>24.26</b>	<b>20.42</b>
<u>Northeastern Region</u>								
Daggett	0.34	0.03	0.35	0.09	0.22	0.04	0.12	0.15
Duchesne	1.00	1.58	1.51	2.31	1.66	2.07	2.40	2.30
Uintah	3.35	1.81	2.18	2.61	2.79	2.29	1.99	2.52
<b>REGIONAL TOTALS</b>	<b>4.69</b>	<b>3.43</b>	<b>4.04</b>	<b>5.01</b>	<b>4.67</b>	<b>4.41</b>	<b>4.50</b>	<b>4.97</b>
<u>Southeastern Region</u>								
Carbon	2.22	1.50	2.03	1.75	1.96	2.82	2.44	3.94
Emery	1.60	1.74	1.84	2.38	1.92	2.85	3.32	2.00
Grand	1.12	0.62	0.33	2.32	0.90	1.98	3.90	1.20
San Juan	1.70	0.74	1.51	1.90	1.10	2.30	2.75	1.90
<b>REGIONAL TOTALS</b>	<b>6.64</b>	<b>4.61</b>	<b>5.70</b>	<b>8.35</b>	<b>5.89</b>	<b>9.95</b>	<b>12.40</b>	<b>9.04</b>
Unknown counties	0.61	3.08	3.51	0.94	0.23	0.07	0.05	0.15
Mixed counties	--	--	0.11	0.05	0.00	0.00	0.00	0.00
<b>STATE TOTALS</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>



Table 6. Percentage distribution of mourning dove hunting pressure by region and county, 1975-82.

Region and County	Year							
	1975	1976	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>								
Box Elder	6.65	7.58	6.92	6.63	7.76	7.40	8.91	7.25
Cache	4.28	5.09	2.99	4.03	3.54	2.69	2.98	3.46
Davis	3.17	3.85	3.22	3.18	5.21	2.71	3.65	4.69
Morgan	1.04	1.02	1.29	0.91	0.95	1.16	1.17	0.70
Rich	0.33	0.59	0.31	0.42	0.37	0.49	0.23	0.43
Summit	0.41	0.74	0.65	0.57	0.17	0.12	0.44	0.54
Weber	6.73	5.58	6.07	5.44	5.76	5.72	4.72	7.71
<b>REGIONAL TOTALS</b>	<b>22.60</b>	<b>24.46</b>	<b>21.45</b>	<b>21.17</b>	<b>23.77</b>	<b>20.30</b>	<b>22.10</b>	<b>24.78</b>
<u>Central Region</u>								
Juab	5.82	4.66	4.84	5.87	6.36	6.93	5.57	5.73
Salt Lake	10.91	9.76	10.58	9.92	12.00	11.94	8.16	9.90
Sanpete	2.53	4.63	2.55	4.18	4.86	3.81	2.44	2.80
Tooele	5.90	6.52	7.05	5.70	6.42	7.75	7.05	8.52
Utah	20.89	19.88	18.02	20.00	16.70	17.05	17.90	18.92
Wasatch	0.85	0.56	0.72	0.68	0.71	0.82	1.63	1.08
<b>REGIONAL TOTALS</b>	<b>46.90</b>	<b>46.01</b>	<b>43.76</b>	<b>46.36</b>	<b>47.04</b>	<b>48.29</b>	<b>42.76</b>	<b>46.95</b>
<u>Southern Region</u>								
Beaver	1.21	1.91	1.56	0.88	0.95	1.18	1.06	1.48
Garfield	0.38	0.33	0.47	1.12	0.71	0.73	1.17	0.74
Iron	3.10	2.71	3.19	2.77	1.68	1.82	2.90	2.13
Kane	0.32	0.85	0.40	0.57	0.56	0.24	0.88	0.11
Millard	3.59	4.29	5.05	5.34	6.43	5.54	5.74	3.97
Piute	0.41	1.17	0.38	0.92	0.60	0.54	0.77	0.11
Sevier	5.29	4.46	4.24	4.98	5.24	3.53	3.86	3.51
Washington	2.73	2.42	2.54	2.20	2.20	3.20	2.30	2.92
Wayne	0.52	0.56	0.18	0.69	0.60	0.26	0.52	0.35
<b>REGIONAL TOTALS</b>	<b>17.56</b>	<b>18.71</b>	<b>18.00</b>	<b>19.46</b>	<b>18.98</b>	<b>17.05</b>	<b>19.20</b>	<b>15.34</b>
<u>Northeastern Region</u>								
Daggett	0.23	0.02	0.33	0.08	0.23	0.1	0.35	0.17
Duchesne	0.90	0.91	1.83	1.98	1.55	2.38	1.94	1.95
Uintah	3.54	2.19	2.26	2.84	2.74	2.35	3.34	2.63
<b>REGIONAL TOTALS</b>	<b>4.67</b>	<b>3.12</b>	<b>4.22</b>	<b>4.90</b>	<b>4.52</b>	<b>4.83</b>	<b>5.63</b>	<b>4.75</b>
<u>Southeastern Region</u>								
Carbon	2.47	1.78	2.90	1.81	1.82	2.56	2.17	3.30
Emery	2.65	1.67	2.05	2.34	2.21	3.30	2.80	2.21
Grand	0.98	0.87	0.83	1.71	0.71	1.50	2.88	1.05
San Juan	1.69	0.91	1.25	1.37	0.81	2.14	2.23	1.35
<b>REGIONAL TOTALS</b>	<b>7.79</b>	<b>5.24</b>	<b>7.03</b>	<b>7.23</b>	<b>5.56</b>	<b>9.49</b>	<b>10.08</b>	<b>7.91</b>
Unknown counties	0.47	2.45	5.31	0.180	0.13	0.05	0.23	0.26
Mixed counties	--	--	0.04	0.08	0.00	0.00	0.00	0.00
<b>STATE TOTALS</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 7. Statewide summary of mourning dove harvest statistics, 1951-82.

Year	Total Hunters	Total Harvest	Hunters-days Afield	Doves Per Hunter-day	Doves Per Hunter
1951	3,007	20,448	4,455	4.59	6.80
1952	6,420	49,498	10,784	4.59	7.71
1953	9,887	75,636	17,797	4.25	7.65
1954	9,901	75,941	19,724	3.85	7.67
1955	9,653	79,444	19,282	4.12	8.23
1956	10,744	95,729	20,411	4.69	8.91
1957	11,298*	86,769*	18,620*	4.66	7.68
1958	11,853	85,934	21,591	3.98	7.25
1959	12,142	110,856	24,911	4.45	9.13
1960	12,440	108,477	25,766	4.21	8.72
1961	15,192	128,001	33,434	3.89	8.42
1962	14,663	144,826	34,281	4.23	9.89
1963	18,258	162,769	40,490	4.02	8.91
1964	19,829	193,538	51,671	3.75	9.76
1965	18,710	164,087	48,835	3.36	8.69
1966	20,594	212,696	60,608	3.51	10.33
1967	25,161	263,949	74,171	3.56	10.49
1968	25,105	207,922	70,186	2.96	8.28
1969	29,131	279,311	90,965	3.07	9.59
1970	23,908	232,469	73,984	3.14	9.72
1971	26,064	226,645	81,271	2.79	8.70
1972	29,341	238,354	94,046	2.53	8.12
1973	27,435	307,062	97,788	3.14	11.19
1974	34,021	306,076	112,967	2.71	9.00
1975	37,378	420,308	131,312	3.20	11.24
1976	31,293	298,505	108,780	2.74	9.54
1977	26,905	267,487	83,218	3.21	9.94
1978	35,985	383,696	130,173	2.95	10.66
1979	34,903	351,161	120,459	2.92	10.06
1980	32,627	343,851	97,644	3.52	10.54
1981	30,060	310,068	101,728	3.05	10.31
1982	31,756	282,188**	107,728	2.62	8.89
<hr/>					
TOTALS (1951-82)	685,664	6,513,701	2,029,080	3.21	9.50
<hr/>					
AVERAGES (1951-81)	21,094	201,016	61,979	3.24	9.53
<hr/>					

\*Estimated.

\*\*Bag Limit increased to 15.

Table 8. Mourning dove field bag check summary, 1982.

Region and County	ALL HUNTERS				COMPLETE HUNTS				Total Birds/100 Hr Hunter	
	Total Parties	Total Hunters	Total Hours	Total Birds/100 Hr	Total Complete Hunts	Total Hunters	Total Hours	Total Birds/100 Hr		
<b>Northern Region</b>										
Box Elder	81	212	822	863	105	171	750	821	109	4.80
Cache	--	--	--	--	--	--	--	--	--	--
Davis	18	35	96	88	92	20	54	66	122	3.30
Morgan	--	--	--	--	--	--	--	--	--	--
Rich	2	5	18	73	406	5	18	73	406	14.60
Summit	--	--	--	--	--	--	--	--	--	--
Weber	8	21	30	43	143	4	12	38	317	9.50
<b>REGIONAL TOTALS</b>	<b>109</b>	<b>273</b>	<b>966</b>	<b>1,067</b>	<b>110</b>	<b>200</b>	<b>834</b>	<b>998</b>	<b>120</b>	<b>4.99</b>
<b>Central Region</b>										
Juab	15	32	83	94	113	0	0	0	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--
Sanpete	24	66	135	97	72	12	30	11	37	0.92
Tooele	31	64	154	177	115	0	0	0	--	2.77
Utah	37	89	239	172	72	0	0	0	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>107</b>	<b>251</b>	<b>611</b>	<b>540</b>	<b>88</b>	<b>12</b>	<b>30</b>	<b>11</b>	<b>37</b>	<b>0.92</b>
<b>Southern Region</b>										
Beaver	7	30	139	163	117	26	125	141	113	5.42
Garfield	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--
Millard	48	142	594	532	90	0	0	0	--	3.75
Piute	--	--	--	--	--	--	--	--	--	--
Sevier	4	8	32	15	47	0	0	0	--	1.88
Washington	--	--	--	--	--	--	--	--	--	--
Wayne	4	9	30	14	46	3	30	9	30	1.13
<b>REGIONAL TOTALS</b>	<b>63</b>	<b>189</b>	<b>795</b>	<b>724</b>	<b>91</b>	<b>34</b>	<b>155</b>	<b>150</b>	<b>97</b>	<b>4.41</b>
<b>Northeastern Region</b>										
Daggett	--	--	--	--	--	--	--	--	--	--
Duchesne	3	5	6	7	116	1	3	2	66	2.00
Uintah	2	4	4	10	250	2	2	8	400	4.00
<b>REGIONAL TOTALS</b>	<b>5</b>	<b>9</b>	<b>10</b>	<b>17</b>	<b>170</b>	<b>3</b>	<b>5</b>	<b>10</b>	<b>200</b>	<b>3.33</b>
<b>Southeastern Region</b>										
Carbon	9	28	85	195	229	8	64	147	230	6.68
Emery	14	31	64	120	188	10	56	115	205	4.79
Grand	4	6	10	22	220	2	65	21	32	10.50
San Juan	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>27</b>	<b>65</b>	<b>159</b>	<b>337</b>	<b>212</b>	<b>20</b>	<b>185</b>	<b>283</b>	<b>153</b>	<b>5.90</b>
<b>LEHI CHECK STATION</b>	<b>280</b>	<b>597</b>	<b>2,572</b>	<b>1,675</b>	<b>65</b>	<b>317</b>	<b>541</b>	<b>1,002</b>	<b>185</b>	<b>3.16</b>
<b>NEPHI CHECK STATION*</b>	<b>103</b>	<b>308</b>	<b>1,097</b>	<b>883</b>	<b>80</b>	<b>179</b>	<b>780</b>	<b>706</b>	<b>91</b>	<b>3.94</b>
<b>STATE TOTALS</b>	<b>694</b>	<b>1,692</b>	<b>6,210</b>	<b>5,243</b>	<b>84</b>	<b>793</b>	<b>2,530</b>	<b>3,160</b>	<b>125</b>	<b>3.98</b>

Includes M...rd ...nt...

Table 9. Mourning dove hunter success trend determined by field bag checks, 1977-82.

Region and County	1977		1978		1979		1980		1981		1982	
	Doves/100 Hr Hunter	Doves/100 Hr Hunter	Doves/100 Hr Hunter	Doves/100 Hr Hunter	Doves/100 Hr Hunter	Doves/100 Hr Hunter	Doves/100 Hr Hunter	Doves/100 Hr Hunter	Doves/100 Hr Hunter	Doves/100 Hr Hunter	Doves/100 Hr Hunter	Doves/100 Hr Hunter
<b>Northern Region</b>												
Box Elder	82	2.96	74	2.76	98	3.74	131	5.98	135	5.52	109	4.80
Cache	177	2.88	--	--	--	--	163	5.33	--	--	--	--
Davis	31	0.36	--	--	80	1.78	81	2.74	59	1.70	122	3.30
Morgan	38	0.56	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	80	2.15	--	--	--	--	406	14.60
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	67	3.00	--	--	--	--	317	9.50
<b>REGIONAL TOTALS</b>	<b>81</b>	<b>2.82</b>	<b>74</b>	<b>2.76</b>	<b>96</b>	<b>3.51</b>	<b>129</b>	<b>5.72</b>	<b>128</b>	<b>4.99</b>	<b>120</b>	<b>4.99</b>
<b>Central Region</b>												
Juab	81	4.49	80	4.00	421	9.83	68	4.30	--	--	--	--
Salt Lake	91	1.80	76	2.00	23	0.38	333	3.33	--	--	--	--
Sanpete	38	0.69	0	0.00	81	2.23	20	0.56	200	1.00	37	0.92
Tooele	93	4.00	80	3.00	233	7.00	241	8.09	139	0.93	--	2.77*
Utah	73	2.61	70	2.08	47	1.84	53	1.80	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>77</b>	<b>2.53</b>	<b>72</b>	<b>2.29</b>	<b>49</b>	<b>1.85</b>	<b>75</b>	<b>3.84</b>	<b>63</b>	<b>0.96</b>	<b>37</b>	<b>0.92</b>
<b>Southern Region</b>												
Beaver	--	--	--	--	158	4.75	224	9.25	78	2.89	113	5.42
Garfield	--	--	250	6.67	196	5.36	--	--	--	--	--	--
Iron	666	10.00	165	5.06	321	6.77	500	10.00	--	--	--	--
Kane	--	--	393	7.66	331	9.53	180	5.65	--	--	--	--
Millard	136	6.80	213	7.62	98	5.60	172	6.20	152	5.96	--	3.75*
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	1.88*
Washington	231	3.92	137	4.11	500	10.00	343	6.86	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	150	2.77	30	1.13
<b>REGIONAL TOTALS</b>	<b>150</b>	<b>6.08</b>	<b>236</b>	<b>6.52</b>	<b>141</b>	<b>6.34</b>	<b>203</b>	<b>6.41</b>	<b>125</b>	<b>4.45</b>	<b>97</b>	<b>4.41</b>
<b>Northeastern Region</b>												
Daggett	--	--	0	0.00	225	2.12	59	1.11	226	5.20	--	--
Duchesne	--	--	380	4.75	--	--	100	1.00	--	--	66	2.00
Uintah	121	2.66	97	2.00	87	1.75	124	2.38	166	2.92	400	4.00
<b>REGIONAL TOTALS</b>	<b>121</b>	<b>2.66</b>	<b>146</b>	<b>2.77</b>	<b>156</b>	<b>2.00</b>	<b>87</b>	<b>1.61</b>	<b>198</b>	<b>3.95</b>	<b>200</b>	<b>3.33</b>
<b>Southeastern Region</b>												
Carbon	127	3.12	100	2.17	61	1.75	177	3.65	1,000	10.00	230	6.68
Emery	33	2.00	50	0.50	--	--	233	3.50	664	9.13	205	4.79
Grand	50	1.50	--	--	50	0.50	--	--	--	--	32	10.50
San Juan	250	6.33	400	10.00	217	4.19	261	5.64	115	2.50	--	--
<b>REGIONAL TOTALS</b>	<b>168</b>	<b>4.27</b>	<b>196</b>	<b>4.00</b>	<b>133</b>	<b>3.00</b>	<b>215</b>	<b>4.43</b>	<b>415</b>	<b>6.75</b>	<b>153</b>	<b>5.90</b>
<b>NEPHI CHECKING STATION</b>												
LEHI CHECKING STATION	--	--	--	--	86	4.65	37	1.68	116	5.62	91	3.94
<b>STATE TOTALS</b>	<b>93</b>	<b>3.14</b>	<b>82</b>	<b>2.65</b>	<b>69</b>	<b>2.86</b>	<b>64</b>	<b>2.94</b>	<b>107</b>	<b>4.34</b>	<b>125</b>	<b>3.98</b>

\*Doves per hunter index based on all hunts.

Table 10. Age composition (Immatures/100 Adults) of mourning doves harvested, 1973-82.

Region and County	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1973-81 Avg.
	I/100A (n)	I/100A (n)	I/100A (n)	I/100A (n)	I/100A (n)	I/100A (n)	I/100A (n)	I/100A (n)	I/100A (n)	I/100A (n)	I/100A (n)
<b>Northern Region</b>											
Box Elder	102 (1324)	129 (1430)	123 (2830)	103 (1870)	216 (1296)	88 (999)	84 (1271)	121 (1454)	107 (700)	124 (716)	
Cache	100 (2)	--	66 (128)	114 (15)	0 (2)	--	106 (53)	151 (113)	--	--	
Davis	450 (11)	--	100 (4)	--	150 (10)	--	71 (65)	169 (43)	--	107 (56)	
Morgan											
Rich	100 (10)	250 (7)	84 (116)	--	--	--	92 (25)	--	--	4,200 (43)	
Summit											
Weber	71 (24)	213 (119)	100 (26)	117 (13)	233 (20)	--	190 (29)	--	--	--	
<b>REGIONAL TOTALS</b>	103 (1371)	134 (1556)	118 (3104)	103 (1898)	216 (1328)	88 (999)	86 (1423)	124 (1610)	107 (700)	135 (815)	129 (1559)
<b>Central Region</b>											
Juab	29 (66)	105 (88)	228 (220)	240 (136)	283 (199)	63 (75)	--	--	--	--	
Salt Lake	136 (33)	50 (9)	109 (338)	147 (42)	275 (120)	--	--	--	--	--	
Sanpete	46 (114)	185 (111)	650 (30)	222 (87)	139 (74)	--	--	--	--	--	
Tooele	290 (82)	99 (219)	76 (202)	156 (115)	195 (177)	60 (262)	84 (103)	118 (96)	78 (71)	80 (137)	
Utah	132 (267)	123 (261)	128 (392)	170 (278)	113 (286)	61 (1814)	80 (1823)	45 (29)	--	100 (32)	
Wasatch											
<b>REGIONAL TOTALS</b>	101 (562)	118 (688)	128 (1182)	184 (658)	177 (856)	61 (2151)	81 (1926)	95 (125)	78 (71)	89 (169)	114 (913)
<b>Southern Region</b>											
Beaver	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	176 (47)	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	--	--	176 (47)	320 (30)	--	--	--	--	--	--	--
<b>Northeastern Region</b>											
Daggett	--	--	--	--	--	--	--	--	--	--	--
Duchesne	--	--	--	--	--	--	--	--	--	--	--
Uintah	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	--	--	--	--	--	--	--	--	--	--	--
<b>Southeastern Region</b>											
Carbon	--	--	--	--	--	--	67 (167)	--	--	160 (138)	
Emery	--	--	233 (30)	--	--	--	--	--	*260 (18)	76 (88)	
Grand	--	--	300 (84)	--	--	--	--	--	--	--	
San Juan	--	--	189 (214)	97 (274)	--	--	--	--	*50 (84)	--	
<b>REGIONAL TOTALS</b>	--	263 (196)	215 (328)	97 (274)	--	--	67 (167)	261 (80)	*65 (102)	119 (226)	164 (191)
<b>NEPHI CHECKING STATION</b>	--	--	--	--	--	87 (2013)	114 (1814)	100 (862)	105 (1067)	62 (754)	102 (1439)
<b>LEHI CHECKING STATION</b>	--	--	--	--	--	--	--	98 (1204)	75 (2075)	83 (1075)	86 (1640)
<b>STATE TOTALS</b>	102 (1933)	136 (2440)	126 (4661)	118 (2860)	200 (2184)	75 (5163)	91 (5330)	111 (3881)	*87 (4015)	91 (3143)	116 (3607)

\*Correction in date for 1981

Table 11. Percent of harvest by hatching date of immature mourning doves in northern Utah, 1973-82.

Date Hatched	Age* (Days)	P	PERCENT OF HARVEST BY HATCH DATE										S A M P L E S I Z E									
			1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Aug 3	29	none	22.2	48.3	11.1	42.5	36.4	52.8	45.6	35.6	46.1	32.6	322	428	177	409	329	246	265	316	166	152
Jul 31	32	1	21.4	28.6	24.3	22.9	27.9	25.3	22.7	26.9	33.6	24.9	215	253	389	220	252	118	132	239	121	116
Jul 25	38	2	18.8	14.3	32.3	17.9	17.3	12.0	14.3	16.4	14.2	21.7	124	127	517	172	156	56	83	146	51	101
Jul 18	45	3	15.4	3.7	18.4	7.2	6.7	5.8	8.1	11.6	5.0	7.7	76	33	295	69	60	27	47	103	18	36
Jul 9	54	4	9.9	2.3	8.6	4.0	4.3	3.0	5.0	5.1	0.6	4.7	31	20	137	38	39	14	29	45	2	22
Jun 30	63	5	6.8	1.1	5.3	2.0	2.4	0.4	1.5	2.4	--	4.1	18	10	85	19	22	2	9	21	0	19
Jun 21	72	6	3.7	1.2	--	1.0	2.9	0.2	1.7	1.5	--	2.8	2	11	--	10	26	1	10	13	0	13
Jun 8	85	7	1.6	0.4	--	0.9	2.2	--	--	0.3	--	1.3	1	4	--	9	20	0	0	3	0	6
May 22	102	8	0.1	--	--	1.7	--	0.2	0.2	--	0.3	0.2	--	--	--	16	--	1	1	0	1	1
Apr 27	127	9	--	--	--	--	--	0.2	0.9	0.2	0.3	--	--	--	--	--	--	1	5	2	1	0
Apr 21	133	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	0	0	0
			100	100	100	100	100	100	100	100	100	100	695	886	1600	962	904	466	581	888	360	466

\*Allen, J. M., 1963.

P = Least primary molted.

Table 12. Percent of harvest by hatching date of immature mourning doves from the various regions and check stations in Utah, 1962.

Date Hatched	Age* (Days)	P	PERCENT OF HARVEST BY HATCH DATE										S A M P L E S I Z E									
			N Region					SE Region					N Region					SE Region				
			Nephi	CS	Lehi	CS	Other	Nephi	CS	Lehi	CS	Other	Nephi	CS	Lehi	CS	Other	Nephi	CS	Lehi	CS	Other
Aug 3	29	none	32.6	43.4	37.2	41.7	39.8	34.1	152	128	182	50	360	42								
Jul 31	32	1	24.9	32.5	38.1	37.5	36.2	26.8	116	96	186	45	327	33								
Jul 25	38	2	21.7	14.6	14.9	13.3	14.6	23.6	101	43	73	16	132	29								
Jul 18	45	3	7.7	6.8	8.0	4.1	7.1	10.6	36	20	39	5	64	13								
Jul 9	54	4	4.7	2.7	1.6	1.7	2.0	3.3	22	8	8	2	18	4								
Jun 30	63	5	4.1	--	0.2	1.7	0.3	0.8	19	0	1	2	3	1								
Jun 21	72	6	2.8	--	--	--	--	0.8	13	0	0	0	0	1								
Jun 8	85	7	1.3	--	--	--	--	--	6	0	0	0	0	0								
May 22	102	8	0.2	--	--	--	--	--	1	0	0	0	0	0								
Apr 27	127	9	--	--	--	--	--	--	0	0	0	0	0	0								
Apr 21	133	10	--	--	--	--	--	--	0	0	0	0	0	0								
			100	100	100	100	100	100	466	295	489	120	904	123								

\*Allen, J. M., 1963.

P = Last primary molted.

## BAND-TAILED PIGEON

### Banding

Between 1969 and 1978, 2,649 total pigeons were banded in Utah and 975 recaptured. Results of banding efforts through 1972 indicated a direct recovery rate of 1.4 percent. If expanded, using an assumed 30 percent band reporting rate, an estimated harvest rate of less than 5 percent of the state's pigeon population is indicated. Addition of an estimated 16 percent crippling loss would result in a total kill rate of from 5-10 percent, well within the harvestable surplus.

### Harvest

Results of the 1982 harvest questionnaire are shown in Table 13 and harvest trends since 1970 in Table 14. A comparison of the 1982 season to 1981 and the average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Band-tailed pigeon hunters	51	-24	-12
Band-tailed pigeon harvest	113	+12	-29
Hunter-days afield	125	-12	-9
Pigeons per hunter-day	0.9	+29	-25
Pigeons per hunter	2.2	+47	-21

Total hunters decreased 24 percent from 1981, and hunter-days afield also decreased by 12 percent. Total harvest however, increased slightly from 1981. Eighty percent of the 1982 harvest occurred in Iron and Washington counties.



Table 13. Band-tailed pigeon harvest statistics, 1982.

Area Hunted	Participating Hunters		Hunter-days		Harvest		Pigeons/ Hunter-day	Percent of Pressure*	Percent of Harvest
	Reported	Calc.	Reported	Calc.	Reported	Calc.			
Beaver County	--	--	--	--	--	--	--	--	--
Blue Mountain-Elk Ridge	6	8	19	26	13	18	0.7	21	16
Carbon County	--	--	--	--	--	--	--	--	--
Garfield County	--	--	--	--	--	--	--	--	--
Iron County	10	14	15	21	35	48	2.3	17	43
Kane County	--	--	--	--	--	--	--	--	--
LaSal Mountain	3	4	8	13	3	5	0.4	9	4
Millard County	--	--	--	--	--	--	--	--	--
Piute County	--	--	--	--	--	--	--	--	--
Utah County	--	--	--	--	--	--	--	--	--
Washington County	11	15	21	29	17	24	0.8	24	21
Wayne County	--	--	--	--	--	--	--	--	--
Mixed counties (Washington & Iron)	7	10	26	36	13	18	0.5	29	16
TOTALS	37	51	89	125	81	113	0.9	100	100

\*Based on hunter-days.

Projection factor = 1.3846 (90 permits issued; 65 questionnaires returned).

Table 14. Band-tailed pigeon harvest trend, 1970-82.

Year	Total Hunters Afield	Total Harvest	Hunter-Days Afield	Pigeons Per Hunter-day	Pigeons Per Hunter
1970	34	109	53	2.1	3.2
1971	54	156	110	1.4	2.9
1972	61	211	122	1.7	3.5
1973	25	18	42	0.4	0.7
1974	74	95	141	0.7	1.3
1975	54	116	119	1.0	2.2
1976	54	119	162	0.7	2.2
1977	70	435	225	1.9	6.2
1978	78	264	238	1.1	3.4
1979	62	117	133	0.9	1.9
1980	62	182	175	1.0	2.9
1981	67	101	142	0.7	1.5
1982	51	113	125	0.9	2.2
<b>TOTALS</b> (1970-82)	746	2,036	1,787	1.1	2.7
<b>AVERAGES</b> (1970-81)	58	160	138	1.2	2.8

# CHUKAR PARTRIDGE

## SUMMARY

The statewide breeding population of chukars decreased in 1982 following a second year of lower production during 1981. Overwinter survival appeared less than normal. Late winter and early spring precipitation, critical to successful chukar production, was about average, indicating good reproductive potential.

Results of the brood survey indicated that brood production was below average. Favorable nesting conditions and adequate forage were available as a result of the average temperatures and above average precipitation during January, February and March. However, April, May, June and July were colder than normal which delayed plant growth and may have reduced brood survival. The indicated chukar density decreased significantly during 1982, although, chukars observed per 100 hours of effort remained above average.

Harvest statistics reflected a significant decrease in harvest. Likewise, hunter success (chukars per hunter-day) decreased 39 percent from 1981. Chukar hunters decreased 12 percent and spent 11 percent less time afield than in 1981.



### Brood Counts

Results of the annual random brood survey for 1982 are shown in Table 1 of this section. Long-term trends of young-adult ratios, mean brood size and chukars observed per 100 hours are found in Tables 2-4. Following are the survey results for 1982 compared to 1981 and the 10-year (1972-81) average:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Total chukars observed	845	-46	-14
Young per 100 adults	138	-58	-60
Mean brood size	8.88	-6	+1
Chukars observed per 100 hours	496	-49	+28
Total hours effort	170.5	+1	-38

Harvest data for 1981 indicated decreased breeding populations for 1982 in all regions except the Southern and Southeastern. Late winter and early spring precipitation (December-April) was about average over the entire state (Figure 2) producing favorable conditions for good production. Above average temperatures for the same period should have helped winter survival.

Effort on chukar brood counts did not improve much over 1981 and remained far below average.

Brood count sample sizes were again extremely small for all regions. The Central Region counted 7 and the Southeastern Region counted 3 of the state total of 16 broods. Chukar density however, was 28 percent above the 10-year average, indicating the birds were concentrated, but populations and production apparently were down.

### Harvest

#### Hunter Questionnaire

Results of the hunter questionnaire survey for 1982 are shown in Table 5. Long-term trends of chukars bagged per hunter-day, percent of harvest and percent of pressure (hunter-days) by county are found in Tables 6-8 and total statewide harvest statistics in Table 9. Following is a comparison of 1982 harvest statistics to 1981 and the 24-year average:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Chukar hunters	11,326	-12	-27
Chukars harvested	24,460	-46	-45
Hunter-days afield	32,691	-11	-31
Chukars per hunter-day	0.75	-39	-20
Chukars per hunter	2.16	-38	-25

Chukar hunters spent less time afield and harvested about 46 percent fewer birds than in 1981. Chukars per hunter-day was below the 1981 level and the statewide average. The Central Region again had the highest percentage of the harvest in 1982, and also had the highest percentage of hunter pressure.

#### Field Bag Check

A summary of field bag check data for 1982 is shown in Table 10. The hunter success trend determined by field bag checks since 1977 is shown in Table 11. Data for the 1982 season compared to 1981 and the (1966-81) average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Total hunters checked	387	+34	-29
Total hours hunted	1,626	+68	-33
Chukars per hunter (complete hunts)	0.40	-76	-65
Chukars bagged per 100 hours	9	-79	-64
Average hours per hunter-day (complete hunts)	4.6	+21	+2
Hours hunted per chukar bagged	11.6	+404	+152

Field bag checks also indicate hunter success was down. Fewer hunters pursued chukars in 1982 and spent fewer days afield but the length of those days increased significantly (21 percent). The hours required to bag a chukar was 152 percent above average. A combination of lower production and wet weather in September which dispersed the birds over much of western Utah is blamed for the decline.

Chukars bagged per hunter and per hunter-day.

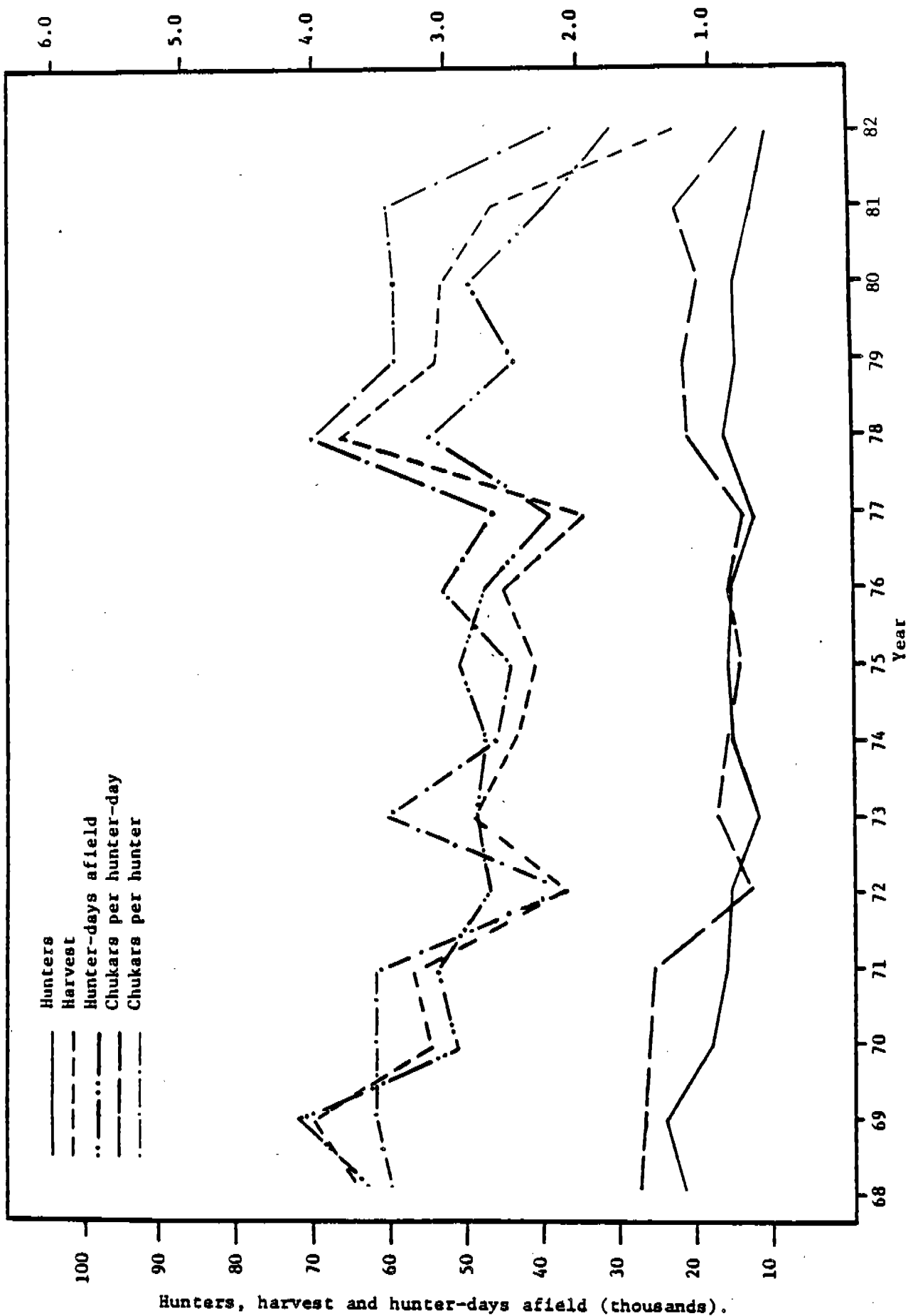


Figure 1. Statewide trends of chukar partridge harvest statistics.

Hunters, harvest and hunter-days afield (thousands).

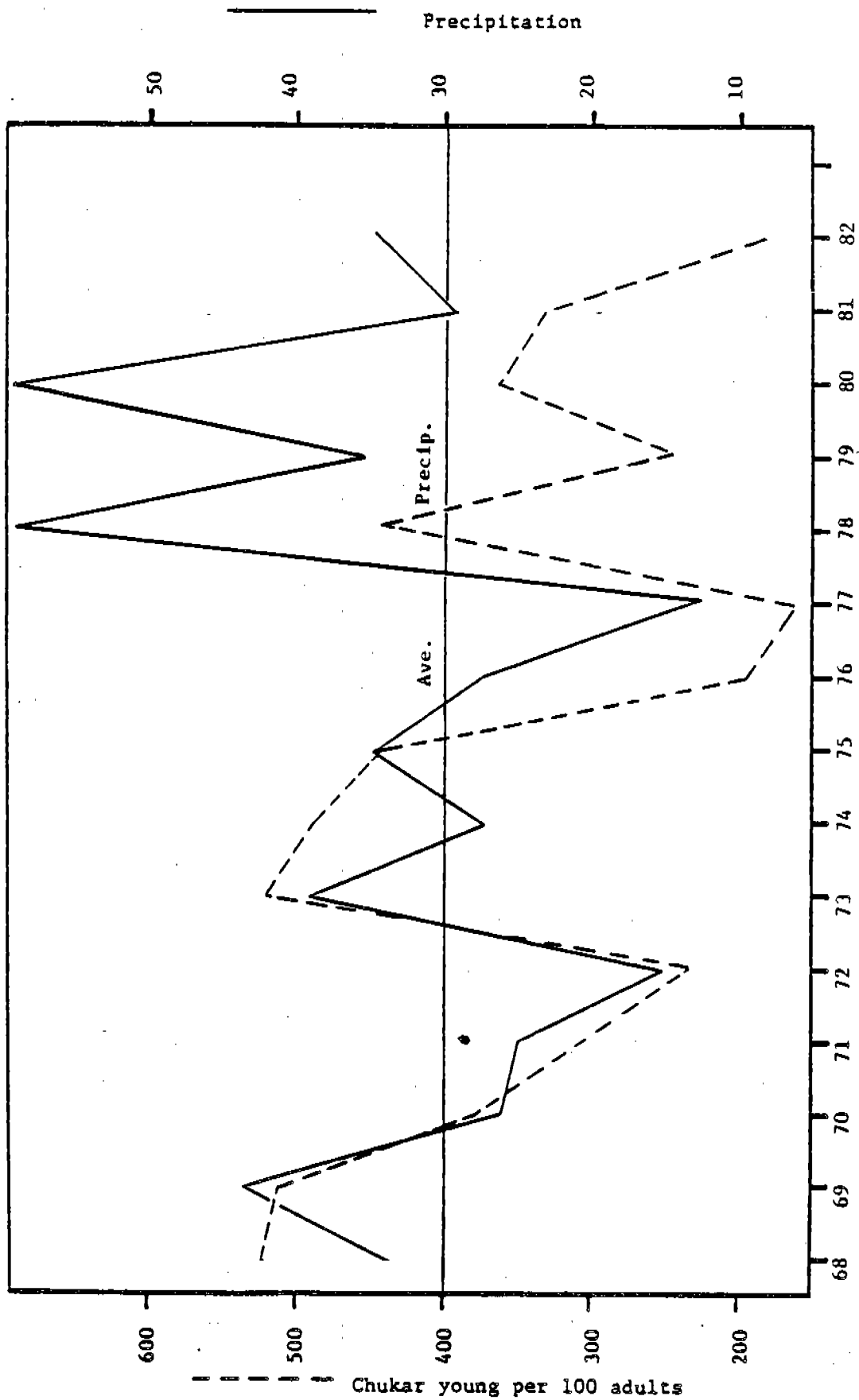


Figure 2. Relationship between late winter and early spring (Jan.-April) precipitation and chukar production.

Table 1. Chukar summer inventory summary, 1982.

Region and County	Distinct Broods		Mean Brood	Mixed Yng & Adults		Total Adults	Total Yng	Total Yng/100 Ad	Veh. Miles	Hours of Effort		Birds/100 Hr
	# Ad	Yng		Ad	Yng					Veh.	Horse Walk	
<b>Northern Region</b>												
Box Elder	1	12	12.00	0	0	9	10	120	307	22	0	23
Cache	0	0	--	0	0	0	0	--	0	0	0	0
Davis	0	0	--	6	8	110	116	7	166	10	0	11
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	2	2	7.50	0	0	2	15	750	0	0	0	0
Weber	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>3</b>	<b>3</b>	<b>3.00</b>	<b>6</b>	<b>8</b>	<b>119</b>	<b>128</b>	<b>27</b>	<b>473</b>	<b>32</b>	<b>0</b>	<b>34</b>
<b>Central Region</b>												
Juab	2	3	6.00	4	24	0	7	600	143	12.5	0	13.5
Salt Lake	0	0	--	2	1	0	2	50	69	2.5	0	4.5
Sanpete	0	0	--	6	24	0	6	400	33	3.5	0	7
Tooele	5	7	10.60	18	146	9	34	585	257	17.5	0	3.5
Utah	0	0	--	0	0	3	0	--	69	7	0	23.5
Wasatch	--	--	--	--	--	--	--	--	--	--	1	8
<b>REGIONAL TOTALS</b>	<b>7</b>	<b>10</b>	<b>10.14</b>	<b>30</b>	<b>195</b>	<b>12</b>	<b>52</b>	<b>512</b>	<b>571</b>	<b>43</b>	<b>0</b>	<b>12.5</b>
<b>Southern Region</b>												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	*0	0	--	2	11	7	9	122	30	1	0	3
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	0	0	--	0	0	--	0	--	140	10	0	10
Piute	1	1	3.00	6	42	0	7	642	180	12	0	12
Sevier	0	0	--	0	0	1	1	--	80	6	0	6
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	*2	3	9.00	0	0	0	3	600	45	3	--	3
<b>REGIONAL TOTALS</b>	<b>3</b>	<b>4</b>	<b>7.00</b>	<b>8</b>	<b>53</b>	<b>8</b>	<b>19</b>	<b>389</b>	<b>475</b>	<b>32</b>	<b>0</b>	<b>3</b>
<b>Northeastern Region</b>												
Daggett	0	0	--	0	0	0	0	--	120	11	5	16
Duchesne	0	0	--	0	0	79	79	--	110	9	0	10
Uintah	0	0	--	0	0	50	50	--	30	2	0	11
<b>REGIONAL TOTALS</b>	<b>0</b>	<b>0</b>	<b>--</b>	<b>0</b>	<b>0</b>	<b>129</b>	<b>0</b>	<b>--</b>	<b>260</b>	<b>22</b>	<b>5</b>	<b>37</b>
<b>Southeastern Region</b>												
Carbon	--	--	--	--	--	--	--	--	--	--	--	--
Emery	1	1	5.00	5	22	4	10	220	--	--	--	--
Grand	2	3	9.00	14	70	0	17	88	101	9	0	9
San Juan	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>3</b>	<b>4</b>	<b>7.67</b>	<b>19</b>	<b>92</b>	<b>4</b>	<b>27</b>	<b>115</b>	<b>101</b>	<b>9</b>	<b>0</b>	<b>9</b>
<b>STATE TOTALS</b>	<b>16</b>	<b>21</b>	<b>8.88</b>	<b>63</b>	<b>348</b>	<b>272</b>	<b>355</b>	<b>138</b>	<b>1,880</b>	<b>138</b>	<b>5</b>	<b>27.5</b>

\*Date collected by Southeastern Region.



Table 2. Trend of chukar young per 100 adults, 1972-82.

Region and County	Year											Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	492	760	663	842	733	300	562	198	111	326	120	
Cache	--	488	750	550	1,900	--	--	300	--	--	--	
Davis	--	--	--	--	--	--	--	3	43	65	7	
Morgan	--	--	--	--	--	--	--	--	--	--	--	
Rich	--	--	--	--	--	--	--	--	--	--	--	
Summit	--	--	--	--	--	--	--	--	--	--	750	
Weber	--	--	--	--	--	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	<b>475</b>	<b>639</b>	<b>684</b>	<b>814</b>	<b>722</b>	<b>300</b>	<b>562</b>	<b>81</b>	<b>53</b>	<b>193</b>	<b>27</b>	<b>452</b>
<u>Central Region</u>												
Juab	420	725	350	500	352	356	1,100	--	557	315	600	
Salt Lake	--	0	--	0	--	380	--	283	--	400	50	
Sanpete	216	0	--	--	488	331	440	500	767	--	400	
Tooele	154	410	356	264	417	96	686	771	697	359	585	
Utah	552	335	96	--	800	150	0	205	243	--	--	
Wasatch	--	--	--	--	--	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	<b>208</b>	<b>364</b>	<b>300</b>	<b>308</b>	<b>411</b>	<b>230</b>	<b>386</b>	<b>518</b>	<b>572</b>	<b>348</b>	<b>512</b>	<b>365</b>
<u>Southern Region</u>												
Beaver	--	--	--	--	--	--	--	--	--	--	--	
Garfield	--	--	--	--	450	--	--	350	--	--	122	
Iron	--	--	--	--	--	--	--	--	--	--	--	
Kane	--	--	--	--	--	--	--	--	340	--	--	
Millard	66	--	--	50	264	95	150	450	550	200	--	
Piute	500	--	--	500	--	--	0	500	--	938	642	
Sevier	800	--	--	--	--	--	--	--	600	800	--	
Washington	--	--	--	--	--	--	--	--	--	--	--	
Wayne	--	--	--	--	--	--	900	--	--	--	600	
<b>REGIONAL TOTALS</b>	<b>131</b>	<b>--</b>	<b>--</b>	<b>114</b>	<b>294</b>	<b>95</b>	<b>233</b>	<b>420</b>	<b>425</b>	<b>410</b>	<b>389</b>	<b>265</b>
<u>Northeastern Region</u>												
Daggett	--	--	--	--	--	--	--	--	--	575	--	
Duchesne	--	--	--	--	800	375	0	--	--	163	--	
Uintah	--	--	733	--	766	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	<b>--</b>	<b>--</b>	<b>733</b>	<b>--</b>	<b>755</b>	<b>375</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>78</b>	<b>--</b>	<b>485</b>
<u>Southeastern Region</u>												
Carbon	372	650	794	633	--	125	--	--	700	--	--	
Emery	--	725	842	367	200	--	500	--	--	--	220	
Grand	274	871	656	377	98	0	980	416	--	577	518	
San Juan	317	500	650	552	40	58	220	--	--	533	--	
<b>REGIONAL TOTALS</b>	<b>324</b>	<b>712</b>	<b>717</b>	<b>437</b>	<b>97</b>	<b>59</b>	<b>591</b>	<b>416</b>	<b>700</b>	<b>575</b>	<b>426</b>	<b>463</b>
<b>STATE TOTALS</b>	<b>235</b>	<b>519</b>	<b>487</b>	<b>443</b>	<b>196</b>	<b>170</b>	<b>444</b>	<b>245</b>	<b>358</b>	<b>326</b>	<b>138</b>	<b>342</b>

Table 3. Trend of chukar mean brood size from 1972-82.

Region and County	Year											Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	13.23	13.00	11.00	11.00	10.50	6.00	14.60	9.57	--	8.33	12.00	
Cache	--	13.00	7.00	--	19.00	--	--	3.00	--	--	--	
Davis	--	--	--	--	--	--	--	2.00	--	--	--	
Morgan	--	--	--	--	--	--	--	--	--	--	--	
Rich	--	--	--	--	--	--	--	--	--	--	--	
Summit	--	--	--	--	--	--	--	--	--	--	7.50	
Weber	--	--	--	--	--	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	<b>13.23</b>	<b>13.00</b>	<b>8.00</b>	<b>11.00</b>	<b>13.33</b>	<b>6.00</b>	<b>14.60</b>	<b>8.00</b>	<b>--</b>	<b>8.33</b>	<b>3.00</b>	<b>10.61</b>
<u>Central Region</u>												
Juab	9.53	9.67	11.00	8.67	7.75	9.00	11.00	--	7.70	5.45	6.00	
Salt Lake	--	--	--	--	--	--	--	5.67	--	4.00	--	
Sanpete	6.00	--	--	--	11.00	6.50	5.00	6.33	--	--	--	
Tooele	10.83	15.00	11.89	9.00	7.20	6.00	6.50	14.07	9.91	8.92	10.60	
Utah	7.50	8.40	8.00	--	8.00	3.00	0.00	6.00	4.00	--	--	
Wasatch	--	--	--	--	--	--	--	--	6.00	--	--	
<b>REGIONAL TOTALS</b>	<b>9.98</b>	<b>10.10</b>	<b>11.35</b>	<b>8.83</b>	<b>7.68</b>	<b>6.64</b>	<b>6.50</b>	<b>11.38</b>	<b>8.16</b>	<b>7.13</b>	<b>10.14</b>	<b>8.78</b>
<u>Southern Region</u>												
Beaver	--	--	--	--	--	--	--	--	--	--	--	
Garfield	--	--	--	--	9.50	--	--	--	--	--	--	
Iron	--	--	--	--	--	--	--	--	--	--	--	
Kane	--	--	--	--	--	--	--	--	--	--	--	
Millard	10.00	--	--	3.00	6.71	3.50	0.00	6.00	10.00	--	--	
Piute	5.67	--	--	5.00	--	--	0.00	10.00	--	10.50	3.00	
Sevier	--	--	--	--	--	--	--	--	--	8.00	--	
Washington	--	--	--	--	--	--	--	--	--	--	--	
Wayne	--	--	--	--	--	--	9.00	--	--	--	9.00	
<b>REGIONAL TOTALS</b>	<b>6.75</b>	<b>--</b>	<b>--</b>	<b>4.00</b>	<b>7.33</b>	<b>3.50</b>	<b>9.00</b>	<b>8.00</b>	<b>10.00</b>	<b>9.67</b>	<b>7.00</b>	<b>7.28</b>
<u>Northeastern Region</u>												
Daggett	--	--	--	--	--	--	--	--	--	9.00	--	
Duchesne	--	--	--	--	8.00	3.75	0.00	--	--	--	--	
Uintah	10.00	--	6.00	--	7.67	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	<b>10.00</b>	<b>--</b>	<b>6.00</b>	<b>--</b>	<b>7.75</b>	<b>3.75</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>9.00</b>	<b>--</b>	<b>7.30</b>
<u>Southeastern Region</u>												
Carbon	9.29	9.00	9.50	9.00	--	--	--	--	--	--	--	
Emery	--	12.00	9.80	12.00	6.17	--	5.00	--	--	--	5.00	
Grand	7.20	1.00	6.25	4.00	6.00	--	0.00	12.50	--	11.90	9.00	
San Juan	9.00	--	10.00	4.33	3.00	--	1.00	--	--	5.33	--	
<b>REGIONAL TOTALS</b>	<b>8.50</b>	<b>8.50</b>	<b>9.05</b>	<b>6.00</b>	<b>5.58</b>	<b>--</b>	<b>3.00</b>	<b>12.50</b>	<b>--</b>	<b>11.30</b>	<b>7.67</b>	<b>8.05</b>
<b>STATE TOTALS</b>	<b>10.08</b>	<b>10.65</b>	<b>10.00</b>	<b>7.12</b>	<b>7.10</b>	<b>5.77</b>	<b>8.75</b>	<b>10.35</b>	<b>8.23</b>	<b>9.48</b>	<b>8.88</b>	<b>8.75</b>

Table 4. Trend of chukars observed per 100 hours, 1972-82.

Region and County	Year											Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	374	77	468	895	208	32	307	438	43	645	90	
Cache	--	--	--	130	167	--	--	57	--	--	--	
Davis	--	--	--	--	--	--	--	608	760	810	1,127	
Morgan	--	--	--	--	100	--	--	--	--	--	--	
Rich	--	--	--	--	--	--	--	--	--	--	--	
Summit	--	--	--	--	--	--	--	--	--	--	--	
Weber	--	--	--	--	--	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	<b>374</b>	<b>119</b>	<b>632</b>	<b>640</b>	<b>197</b>	<b>32</b>	<b>307</b>	<b>430</b>	<b>140</b>	<b>502</b>	<b>479</b>	<b>337</b>
<u>Central Region</u>												
Juab	613	174	338	229	413	152	109	1,500	206	692	363	
Salt Lake	--	60	--	25	0	400	--	209	--	500	43	
Sanpete	527	7	0	0	157	192	142	200	248	--	857	
Tooele	2,044	198	730	291	452	136	917	1,038	1,468	985	1,013	
Utah	833	336	140	0	129	33	133	1,220	533	--	38	
Wasatch	--	--	--	--	--	--	--	--	350	--	--	
<b>REGIONAL TOTALS</b>	<b>997</b>	<b>167</b>	<b>437</b>	<b>178</b>	<b>302</b>	<b>157</b>	<b>243</b>	<b>623</b>	<b>440</b>	<b>722</b>	<b>578</b>	<b>427</b>
<u>Southern Region</u>												
Beaver	--	--	--	--	--	--	--	--	--	--	--	
Garfield	--	0	0	0	440	--	--	1,200	--	--	500	
Iron	--	--	--	--	--	--	--	--	--	--	--	
Kane	--	--	0	--	--	--	--	--	--	--	--	
Millard	573	--	291	36	1,020	216	182	220	236	1,467	--	
Piute	2,400	--	--	150	0	--	0	120	--	1,660	433	
Sevier	900	--	100	--	--	--	--	--	1,400	900	17	
Washington	--	--	--	--	--	--	--	--	--	--	--	
Wayne	--	--	--	0	--	10	83	--	--	--	700	
<b>REGIONAL TOTALS</b>	<b>543</b>	<b>0</b>	<b>79</b>	<b>37</b>	<b>616</b>	<b>114</b>	<b>115</b>	<b>242</b>	<b>525</b>	<b>1,436</b>	<b>266</b>	<b>412</b>
<u>Northeastern Region</u>												
Daggett	--	0	0	0	--	0	--	--	--	--	--	
Duchesne	--	0	0	0	22	73	0	0	--	300	790	
Uintah	48	0	227	0	96	0	--	0	--	614	454	
<b>REGIONAL TOTALS</b>	<b>16</b>	<b>0</b>	<b>83</b>	<b>0</b>	<b>52</b>	<b>27</b>	<b>0</b>	<b>0</b>	<b>--</b>	<b>533</b>	<b>348</b>	<b>142</b>
<u>Southeastern Region</u>												
Carbon	621	375	947	1,100	--	450	--	0	1,600	--	--	
Emery	--	194	1,130	233	370	0	200	--	--	--	--	
Grand	710	358	900	2,277	2,950	40	379	1,020	--	2,891	1,167	
San Juan	431	800	789	721	492	136	67	0	--	1,120	--	
<b>REGIONAL TOTALS</b>	<b>541</b>	<b>298</b>	<b>915</b>	<b>996</b>	<b>883</b>	<b>98</b>	<b>185</b>	<b>230</b>	<b>160</b>	<b>2,338</b>	<b>1,578</b>	<b>664</b>
<b>STATE TOTALS</b>	<b>556</b>	<b>150</b>	<b>469</b>	<b>303</b>	<b>370</b>	<b>96</b>	<b>213</b>	<b>396</b>	<b>336</b>	<b>978</b>	<b>496</b>	<b>387</b>

Table 5. Summary of chukar hunter success and distribution of harvest and hunting pressure by region and county, 1982.

Region and County	Sample Size*	Hunter-days Afield	Birds Bagged	Birds per Hunter-day	% of Pressure	% of Harvest
<b>NORTHERN REGION</b>						
BOX ELDER	202	8,214	6,191	0.75	25.13	25.31
CACHE	28	796	306	0.38	2.44	1.25
DAVIS	9	291	137	0.47	0.89	0.56
MORGAN	20	643	781	1.21	1.97	3.20
RICH	3	45	30	0.67	0.14	0.13
SUMMIT	8	229	0	0.00	0.70	0.00
WEBER	15	521	475	0.91	1.59	1.94
<b>REGIONAL TOTALS</b>	<b>285</b>	<b>10,743</b>	<b>7,923</b>	<b>0.74</b>	<b>32.86</b>	<b>32.39</b>
<b>CENTRAL REGION</b>						
JUAB	22	888	505	0.57	2.72	2.07
SALT LAKE	34	1,149	1,103	0.96	3.52	4.51
SANPETE	24	1,287	735	0.57	3.94	3.01
TOOELE	150	6,115	4,459	0.73	18.71	18.23
UTAH	105	4,628	3,417	0.74	14.16	13.97
WASATCH	5	275	260	0.94	0.84	1.07
<b>REGIONAL TOTALS</b>	<b>340</b>	<b>14,345</b>	<b>10,483</b>	<b>0.73</b>	<b>43.88</b>	<b>42.86</b>
<b>SOUTHERN REGION</b>						
BEAVER	7	429	260	0.61	1.31	1.07
GARFIELD	4	91	91	1.00	0.28	0.38
IRON	3	91	15	0.17	0.28	0.06
KANE	2	45	0	0.00	0.14	0.00
MILLARD	23	827	1,302	1.57	2.53	5.33
PIUTE	10	260	153	0.59	0.80	0.63
SEVIER	49	2,406	996	0.41	7.36	4.07
WASHINGTON	1	15	0	0.00	0.05	0.00
WAYNE	5	91	76	0.83	0.28	0.31
<b>REGIONAL TOTALS</b>	<b>104</b>	<b>4,260</b>	<b>2,896</b>	<b>0.68</b>	<b>13.03</b>	<b>11.84</b>
<b>NORTHEASTERN REGION</b>						
DAGGETT	** 0	0	0	0.00	0.00	0.00
DUCHESNE	** 7	352	153	0.43	1.08	0.63
UINTAH	** 7	275	567	2.06	0.84	2.32
<b>REGIONAL TOTALS</b>	<b>14</b>	<b>628</b>	<b>720</b>	<b>1.15</b>	<b>1.92</b>	<b>2.94</b>
<b>SOUTHEASTERN REGION</b>						
CARBON	26	904	689	0.76	2.77	2.82
EMERY	30	996	827	0.83	3.05	3.38
GRAND	20	720	735	1.02	2.20	3.01
SAN JUAN	4	76	168	2.20	0.23	0.69
<b>REGIONAL TOTALS</b>	<b>80</b>	<b>2,697</b>	<b>2,421</b>	<b>0.90</b>	<b>8.25</b>	<b>9.90</b>
UNKNOWN	1	15	15	1.00	0.05	0.06
<b>STATE TOTALS</b>	<b>824</b>	<b>32,691</b>	<b>24,460</b>	<b>0.75</b>	<b>100.00</b>	<b>100.00</b>

\*Total hunter trips from questionnaire returns.

\*\*Closed to hunting in 1982.

Table 6. Summary of chukars bagged per hunter-day by region and county, 1974-82.

Region and County	Year								
	1974	1975	1976	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>									
Box Elder	1.47	1.20	1.31	1.23	1.80	1.34	1.41	1.55	0.75
Cache	0.92	0.64	0.70	1.11	0.89	0.60	0.74	0.42	0.38
Davis	1.61	0.31	0.89	1.29	2.20	2.19	0.75	0.33	0.47
Morgan	0.48	0.69	0.31	0.88	1.08	1.38	0.75	0.75	1.21
Rich	1.33	0.20	0.81	0.13	1.22	0.38	0.60	0.50	0.67
Summit	0.43	1.47	1.43	1.00	0.75	1.02	0.78	0.73	0.00
Weber	0.54	0.46	0.60	0.75	0.77	0.67	0.48	1.25	0.91
REGIONAL TOTALS	1.19	0.97	1.07	1.15	1.57	1.25	1.25	1.28	0.74
<u>Central Region</u>									
Juab	0.79	0.55	0.46	0.73	0.63	1.13	0.86	0.66	0.57
Salt Lake	0.55	0.76	0.54	1.41	0.89	1.20	0.89	1.32	0.96
Sanpete	0.96	0.72	0.35	0.90	0.70	1.15	0.90	1.72	0.57
Tooele	0.79	0.67	0.86	0.86	1.06	1.37	0.89	0.97	0.73
Utah	0.71	0.42	0.90	0.56	0.66	0.83	1.01	0.81	0.74
Wasatch	0.88	0.18	0.56	0.56	1.29	0.44	0.58	0.33	0.94
REGIONAL TOTALS	0.74	0.58	0.77	0.80	0.91	1.15	0.92	0.98	0.73
<u>Southern Region</u>									
Beaver	0.00	0.00	0.59	0.20	0.00	0.00	0.86	2.33	0.61
Garfield	1.00	5.00	0.50	0.00	2.00	1.71	2.55	1.11	1.00
Iron	0.00	0.00	0.76	--	0.00	0.00	0.00	1.00	0.17
Kane	0.00	0.00	0.00	--	0.00	3.00	4.00	0.00	0.00
Millard	0.52	0.48	0.87	0.66	0.98	1.29	1.04	1.92	1.57
Piute	0.29	0.69	0.24	0.67	1.35	0.78	0.56	1.78	0.59
Sevier	0.54	0.40	0.57	0.53	0.76	0.67	0.39	1.48	0.41
Washington	0.00	0.33	0.80	0.33	0.00	1.67	0.00	0.00	0.00
Wayne	0.73	2.43	2.74	3.94	1.10	3.00	2.85	2.29	0.83
REGIONAL TOTALS	0.51	0.64	0.79	0.80	0.95	0.89	0.85	1.71	0.68
<u>Northeastern Region</u>									
Daggett	0.00	0.00	2.00	--	0.00	2.25	0.00	0.00	0.00
Duchesne	0.50	0.34	0.77	0.19	1.78	1.20	1.28	1.30	0.43
Uintah	0.12	1.32	0.40	0.33	1.88	1.38	0.27	1.20	2.06
REGIONAL TOTALS	0.30	0.67	0.74	0.25	1.56	1.38	1.00	1.25	1.15
<u>Southeastern Region</u>									
Carbon	0.61	0.72	0.69	0.19	0.58	1.88	1.01	1.24	0.76
Emery	0.65	1.44	1.37	0.39	0.18	1.27	1.37	1.06	0.83
Grand	2.84	1.85	1.42	0.26	0.33	3.39	1.80	1.89	1.02
San Juan	1.33	0.50	0.43	0.00	1.56	4.00	1.67	0.67	2.20
REGIONAL TOTALS	1.22	1.31	1.05	0.27	0.40	2.14	1.44	1.42	0.90
Unknown Counties	0.60	0.59	1.18	0.77	1.48	1.00	0.17	1.83	1.00
Mixed Counties	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STATE TOTALS	0.91	0.81	0.93	0.88	1.21	1.23	1.08	1.23	0.75

Table 7. Percentage distribution of chukar harvest by region and county, 1974-82.

Region and County	Year								
	1974	1975	1976	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>									
Box Elder	40.28	30.32	32.64	37.25	49.32	27.64	38.93	26.85	25.31
Cache	5.70	3.56	5.04	6.97	4.51	1.29	1.84	1.27	1.25
Davis	1.57	0.39	2.31	1.77	2.95	2.58	0.49	0.09	0.56
Morgan	2.00	3.71	0.79	2.21	2.74	2.75	2.24	1.98	3.20
Rich	0.34	0.08	0.60	0.09	0.33	0.34	0.10	0.05	0.13
Summit	0.55	2.31	0.46	0.66	0.27	1.15	0.23	0.52	0.00
Weber	2.08	2.03	1.16	1.19	2.19	0.87	0.49	0.94	1.94
<b>REGIONAL TOTALS</b>	<b>52.53</b>	<b>42.40</b>	<b>43.00</b>	<b>50.13</b>	<b>62.31</b>	<b>36.61</b>	<b>44.33</b>	<b>31.71</b>	<b>32.39</b>
<u>Central Region</u>									
Juab	2.85	2.23	1.85	2.12	0.88	2.94	3.33	2.31	2.07
Salt Lake	3.66	3.79	2.36	5.78	3.65	4.12	2.90	6.94	4.51
Sanpete	2.21	2.62	0.69	2.07	1.43	4.63	2.14	2.93	3.01
Tooele	14.16	13.09	12.71	17.08	16.74	20.44	14.56	14.11	18.23
Utah	11.23	6.57	13.96	8.52	5.18	8.05	12.71	7.69	13.97
Wasatch	0.64	0.23	0.42	0.44	1.10	0.20	0.46	0.05	1.07
<b>REGIONAL TOTALS</b>	<b>34.75</b>	<b>28.53</b>	<b>31.99</b>	<b>36.01</b>	<b>28.98</b>	<b>40.37</b>	<b>36.10</b>	<b>34.03</b>	<b>42.86</b>
<u>Southern Region</u>									
Beaver	0.00	0.00	0.46	0.04	0.00	0.00	0.40	0.99	1.07
Garfield	0.30	0.39	0.23	0.00	0.55	0.34	1.84	0.47	0.38
Iron	0.00	0.00	0.14	--	0.00	0.00	0.00	0.05	0.06
Kane	0.00	0.00	0.00	--	0.00	0.50	0.13	0.00	0.00
Millard	1.53	1.25	2.54	2.52	1.49	2.47	1.65	3.63	5.33
Piute	0.43	0.70	0.37	0.71	0.70	1.57	0.92	6.13	0.63
Sevier	1.62	2.34	1.57	2.56	1.83	3.59	1.68	5.10	4.07
Washington	0.00	0.04	0.18	0.04	0.00	0.14	0.00	0.00	0.00
Wayne	0.34	2.19	2.40	2.78	0.33	0.17	1.22	0.76	0.31
<b>REGIONAL TOTALS</b>	<b>4.21</b>	<b>6.92</b>	<b>7.91</b>	<b>8.65</b>	<b>4.90</b>	<b>8.77</b>	<b>7.84</b>	<b>17.13</b>	<b>11.84</b>
<u>Northeastern Region</u>									
Daggett	0.00	0.00	0.18	--	0.00	0.25	0.00	0.00	0.00
Duchesne	0.68	0.59	0.79	0.40	0.49	0.67	1.35	0.61	0.63
Uintah	0.17	1.29	0.18	0.62	0.27	0.50	0.10	0.57	2.32
<b>REGIONAL TOTALS</b>	<b>0.85</b>	<b>1.88</b>	<b>1.16</b>	<b>1.02</b>	<b>0.76</b>	<b>1.43</b>	<b>1.45</b>	<b>1.18</b>	<b>2.94</b>
<u>Southeastern Region</u>									
Carbon	1.40	3.17	2.22	0.26	0.33	5.21	2.34	2.64	2.82
Emery	0.85	7.93	1.90	0.88	0.21	1.99	2.34	4.29	3.38
Grand	3.74	7.89	5.50	0.93	0.76	5.33	5.20	8.31	3.01
San Juan	0.34	0.27	0.46	0.00	0.43	0.22	0.33	0.19	0.69
<b>REGIONAL TOTALS</b>	<b>6.34</b>	<b>19.27</b>	<b>10.08</b>	<b>2.07</b>	<b>1.74</b>	<b>12.76</b>	<b>10.21</b>	<b>15.43</b>	<b>9.90</b>
Unknown Counties	1.19	1.02	5.87	2.12	1.31	0.06	0.07	0.52	0.06
Mixed Counties	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>STATE TOTALS</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 8. Percentage distribution of chukar hunting pressure by region and county, 1974-82.

Region and County	Year								
	1974	1975	1976	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>									
Box Elder	25.08	20.53	23.07	26.68	33.14	25.32	29.87	21.19	25.13
Cache	5.68	4.55	6.65	5.51	6.13	2.65	2.70	3.71	2.44
Davis	0.89	1.02	2.40	1.20	1.62	1.45	0.71	0.35	0.89
Morgan	3.77	4.39	2.36	2.21	3.06	2.45	3.23	3.24	1.97
Rich	0.23	0.32	0.69	0.58	0.33	1.10	0.18	0.12	0.14
Summit	1.17	1.27	0.30	0.58	0.44	1.38	0.32	0.87	0.70
Weber	3.54	3.56	1.80	1.40	3.43	1.58	1.10	0.93	1.59
REGIONAL TOTALS	40.36	35.63	37.26	38.15	48.15	35.93	39.10	30.40	32.86
<u>Central Region</u>									
Juab	3.30	3.31	3.73	2.56	1.70	3.20	4.19	4.28	2.72
Salt Lake	6.03	4.07	4.03	3.61	4.98	4.24	3.52	6.43	3.52
Sanpete	2.10	2.96	1.84	2.02	2.47	4.96	2.56	2.08	3.94
Tooele	16.41	15.80	13.77	17.49	19.08	18.39	17.54	17.83	18.71
Utah	14.42	12.71	14.45	13.38	9.45	11.95	13.64	11.70	14.16
Wasatch	0.66	1.05	0.69	0.70	1.03	0.55	0.85	0.17	0.84
REGIONAL TOTALS	42.92	39.89	38.51	39.74	38.71	43.30	42.29	42.50	43.88
<u>Southern Region</u>									
Beaver	0.00	0.00	0.73	0.19	0.07	0.00	0.50	0.52	1.31
Garfield	0.27	0.06	0.43	0.04	0.33	0.24	0.78	0.52	0.28
Iron	0.00	0.25	0.17	--	0.07	0.07	0.04	0.06	0.28
Kane	0.00	0.00	0.21	--	0.00	0.21	0.04	0.00	0.14
Millard	2.68	2.10	2.70	3.33	1.85	2.34	1.70	2.32	2.53
Piute	1.36	0.83	1.42	0.93	0.63	2.48	1.78	4.23	0.80
Sevier	2.76	4.74	2.57	4.23	2.92	6.58	4.65	4.23	7.36
Washington	0.00	0.10	0.21	0.12	0.00	0.10	0.00	0.00	0.05
Wayne	0.43	0.73	0.81	0.62	0.37	0.07	0.46	0.41	0.28
REGIONAL TOTALS	7.50	8.80	9.26	9.46	6.24	12.09	9.94	12.28	13.03
<u>Northeastern Region</u>									
Daggett	0.08	0.10	0.09	--	0.07	0.14	0.04	0.00	0.00
Duchesne	1.24	1.40	0.94	1.86	0.33	0.69	1.14	0.58	1.08
Uintah	1.28	0.79	0.43	1.67	0.18	0.45	0.39	0.58	0.84
REGIONAL TOTALS	2.60	2.29	1.46	3.53	0.59	1.27	1.56	1.16	1.92
<u>Southeastern Region</u>									
Carbon	2.10	3.59	3.00	1.20	0.70	3.41	2.49	2.61	2.77
Emery	1.21	4.48	1.29	1.98	1.44	1.93	1.85	4.98	3.05
Grand	1.21	3.46	3.60	3.10	2.77	1.93	3.13	5.39	2.20
San Juan	0.23	0.45	0.99	0.39	0.33	0.07	0.21	0.35	0.23
REGIONAL TOTALS	4.74	11.98	8.88	6.67	5.24	7.34	7.67	13.32	8.25
Unknown Counties	1.83	1.40	4.63	2.40	1.07	0.07	0.43	0.35	0.05
Mixed Counties	0.04	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
STATE TOTALS	100	100	100	100	100	100	100	100	100

Table 9. Statewide summary of chukar partridge harvest statistics, 1958-82.

Year	Total Hunters	Total Harvest	Hunters-days Afield	Chukars Per Hunter-day	Chukars Per Hunter
1958	11,124	19,578	25,100	0.78	1.76
1959	11,154	8,700	26,364	0.33	0.78
1960	13,252	21,733	30,610	0.71	1.64
1961	14,046	20,821	35,675	0.58	1.48
1962	11,638	33,500	35,010	0.95	2.88
1963	14,532	42,806	40,824	1.05	2.95
1964	16,090	42,974	39,971	1.08	2.67
1965	16,431	35,335	45,067	0.78	2.15
1966	17,133	61,370	54,448	1.13	3.58
1967	17,485	48,906	50,671	0.97	2.80
1968	20,744	73,218	61,402	1.19	3.53
1969	22,529	80,917	71,674	1.13	3.59
1970	18,013	56,053	49,911	1.12	3.11
1971	17,917	61,151	55,378	1.10	3.41
1972	16,685	36,925	46,502	0.79	2.21
1973	13,888	48,135	50,677	0.95	3.47
1974	16,412	44,658	48,856	0.91	2.72
1975	16,156	41,151	51,083	0.81	2.57
1976	14,171	43,726	47,143	0.93	3.09
1977	12,691	34,155	38,873	0.88	2.69
1978	16,291	65,747	54,239	1.21	4.04
1979	15,210	51,918	42,254	1.23	3.41
1980	15,100	51,511	47,778	1.08	3.41
1981	12,907	44,983	36,662	1.23	3.49
1982	11,326	24,460	32,691	0.75	2.16
TOTALS (1958-82)	382,925	1,094,431	1,118,863	0.98	2.86
AVERAGES (1958-81)	15,483	44,582	47,257	0.94	2.88



Table 10. Chukar field bag check summary, 1982.

Region and County	ALL HUNTS				COMPLETE HUNTS				
	Total Parties	Total Hunters	Total Hours	Total Birds/100 Hr	Total Complete Hunts	Total Hunters	Total Hours	Total Birds/100 Hr	Birds/ Hunter
<u>Northern Region</u>									
Box Elder	79	188	958	52 5	77	185	947	52 5	0.28
Cache	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>79</b>	<b>188</b>	<b>958</b>	<b>52 5</b>	<b>77</b>	<b>185</b>	<b>947</b>	<b>52 5</b>	<b>0.28</b>
<u>Central Region</u>									
Juab	7	14	26	--	0	0	0	--	--
Salt Lake	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--
Tooele	32	85	287	34 12	3	8	40	4 10	0.50
Utah	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>39</b>	<b>99</b>	<b>313</b>	<b>34 11</b>	<b>3</b>	<b>8</b>	<b>40</b>	<b>4 10</b>	<b>0.50</b>
<u>Southern Region</u>									
Beaver	--	--	--	--	--	--	--	--	--
Garfield	*15	19	57	14 25	15	19	57	14 25	0.74
Iron	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>15</b>	<b>19</b>	<b>57</b>	<b>14 25</b>	<b>15</b>	<b>19</b>	<b>57</b>	<b>14 25</b>	<b>0.74</b>
<u>Northeastern Region</u>									
Daggett	--	--	--	--	--	--	--	--	--
Duchesne	--	--	--	--	--	--	--	--	--
Uintah	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<u>Southeastern Region</u>									
Carbon	--	--	--	--	--	--	--	--	--
Emery	36	67	235	46 20	27	42	131	34 26	0.81
Grand	6	14	63	5 8	4	9	35	--	--
San Juan	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>42</b>	<b>81</b>	<b>298</b>	<b>51 17</b>	<b>31</b>	<b>51</b>	<b>166</b>	<b>34 20</b>	<b>0.67</b>
<b>STATE TOTALS</b>	<b>175</b>	<b>387</b>	<b>1,626</b>	<b>151 9</b>	<b>126</b>	<b>263</b>	<b>1,210</b>	<b>104 9</b>	<b>0.40</b>

\*Includes data from S.E. Region.

Table 11. Chukar hunter success trend as determined by field bag checks, 1977-82.

Region and County	1977		1978		1979		1980		1981		1982	
	Birds/ 100 Hr Hunter	Birds/ Hunter	Birds/ 100 Hr Hunter	Birds/ Hunter	Birds/ 100 Hr Hunter	Birds/ Hunter	Birds/ 100 Hr Hunter	Birds/ Hunter	Birds/ 100 Hr Hunter	Birds/ Hunter	Birds/ 100 Hr Hunter	Birds/ Hunter
<u>Northern Region</u>												
Box Elder	16	0.75	40	1.77	19	0.74	15	0.64	47	1.90	5	0.28
Cache	2	0.12	1	--	7	6.29	14	0.50	9	0.33	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>10</b>	<b>0.47</b>	<b>34</b>	<b>1.48</b>	<b>18</b>	<b>0.71</b>	<b>15</b>	<b>0.63</b>	<b>46</b>	<b>1.83</b>	<b>5</b>	<b>0.28</b>
<u>Central Region</u>												
Juab	8	0.36	7	0.75	0	0.00	--	--	62	2.10	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	10	0.18	33	2.08	89	3.88	--	--	44	1.60	10	0.50
Utah	33	0.00	75	2.50	15	0.52	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>10</b>	<b>0.27</b>	<b>40</b>	<b>2.15</b>	<b>28</b>	<b>1.02</b>	<b>--</b>	<b>--</b>	<b>50</b>	<b>1.77</b>	<b>10</b>	<b>0.50</b>
<u>Southern Region</u>												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	76	1.46	--	--	--	--	25	0.74
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	1	--	--	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	33	0.67	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	25	0.96	--	--
<b>REGIONAL TOTALS</b>	<b>1</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>76</b>	<b>1.46</b>	<b>--</b>	<b>--</b>	<b>26</b>	<b>0.92</b>	<b>25</b>	<b>0.74</b>
<u>Northeastern Region</u>												
Daggett	--	--	--	--	--	--	--	--	--	--	--	--
Duchesne	--	--	--	--	--	--	--	--	--	--	--	--
Uintah	33	0.50	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>33</b>	<b>0.50</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<u>Southeastern Region</u>												
Carbon	--	--	--	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	44	1.71	33	0.67	25	0.81
Grand	10	0.20	--	--	108	3.83	73	2.54	60	2.00	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>10</b>	<b>0.20</b>	<b>--</b>	<b>--</b>	<b>108</b>	<b>3.83</b>	<b>57</b>	<b>2.11</b>	<b>54</b>	<b>1.56</b>	<b>20</b>	<b>0.67</b>
<b>STATE TOTALS</b>	<b>10</b>	<b>0.44</b>	<b>36</b>	<b>1.60</b>	<b>29</b>	<b>1.07</b>	<b>21</b>	<b>0.89</b>	<b>44</b>	<b>1.69</b>	<b>9</b>	<b>0.40</b>

# SAGE GROUSE

## SUMMARY

Harvest data for 1981 indicated an average breeding population of sage grouse for 1982. Strutting ground surveys however, indicated a 6 percent drop in male attendance from 1981.

Brood surveys showed decreased production throughout the state except the Northeastern region during 1982. Birds observed per 100 hours decreased 10 percent compared to 1981 but still remained above average.

The lower production in 1982 was apparent in harvest statistics collected from questionnaires and from field bag checks. Total statewide harvest decreased by 22 percent and was 20 percent below the 19-year average. Total hunters and hunter-days afield both decreased 19 and 13 percent respectively, below average. Sage grouse bagged per hunter decreased slightly while sage grouse bagged per hunter-day declined 7 percent from 1981.



### Strutting Ground Counts

The status of the sage grouse breeding population for 1982, as indicated by strutting ground counts, is shown in Table 1 of this section. Results of this survey for 1982 compared to 1981 and the 1967-81 average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Number of grounds counted	121	-21	+11
Total male grouse counted	2,089	-15	-6
Average male grouse per ground	17	-6	-15
Percent change from previous year (comparable grounds)	-1	--	--

Access for spring 1982 strutting ground counts was generally good in all regions of the state. Although the Southern and Northeastern Regions showed an increase in sage grouse counted, the numbers of grouse observed were down 43 percent in both the Northern and Central Regions. The statewide index for comparable grounds was down 1 percent. Harvest data for 1981 indicated average populations going into the winter of 1981-82, but the numbers of juvenile birds indicated poor production during 1982. Declines in breeding populations also appeared to be the trend in most areas of the state in 1982.

### Brood Counts

Results of the survey for 1982 are found in Table 2. Long-term trends of young-adult ratios, mean brood size and sage grouse observed per 100 hours are shown in Tables 3-5. Indices for 1982 are compared to 1981 and the previous 10-year (1972-81) average as follows:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Total sage grouse counted	1,843	-25	-43
Young per 100 adults	179	+26	+20
Mean brood size	4.85	+20	+9
Sage grouse observed per 100 hours	401	-10	+3
Total hours effort	460	-17	-45

The effort devoted to sage grouse brood counts was 45 percent below average, and the total number of grouse counted was 43 percent below average.

Sage grouse density decreased slightly from 1981, but production showed a 26 percent increase. Fewer adults and fewer young were observed, with average brood size 9 percent above the 10-year average.

## Harvest

### Hunter Questionnaire

Results of the 1982 hunter questionnaire are shown in Table 6. Long-term trends of sage grouse bagged per hunter-day, percent of harvest and percent of pressure (hunter-days) by county are found in Tables 7-9 and total statewide harvest statistics in Table 10. The results of the 1982 hunting season compared to 1981 and the 1963-81 average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Sage grouse hunters	8,997	-11	-19
Sage grouse harvested	12,383	-22	-20
Hunter-days afield	15,663	-16	-13
Sage grouse per hunter-day	0.79	-7	-7
Sage grouse per hunter	1.38	-12	0

The lower production in 1982 was quite apparent in the harvest. Total statewide harvest decreased 22 percent. Total sage grouse hunters and hunter-days afield also decreased, probably in response to reduced success. Hunter success decreased 26 percent in the Northern Region where 32 percent of the harvest and 45 percent of the hunting pressure occurred.

Long-term sage grouse harvest trends are shown in Figure 1.

### Field Bag Checks

A summary of field bag check data for 1982 is shown in Table 11. Hunter success trends determined via this method are shown in Table 12. Results of the 1982 survey compared to 1981 and the 1972-81 average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Total hunters checked	1,422	-34	-37
Total hours hunted	7,146	-21	-17
Sage grouse per hunter (complete hunts)	0.74	-19	-9
Sage grouse bagged per 100 hours	14	-33	-27
Average hours per hunter-day (complete hunts)	5.3	+20	+27
Hours hunted per grouse bagged	7.1	+45	+32

Sex and Age Composition of the Harvest

A summary of the sex and age composition of harvested sage grouse in 1982 is found in Table 13 and the trend from 1979-82 in Table 14.

Following are data derived from wing surveys in 1982 compared to 1981 and the 1977-81 averages:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Sample size	1,197	-17	-25
Percent males	39	0	-7
Percent females	61	0	+5
Young per 100 adults	125	+18	+5
Young per 100 hens (adult)	179	+14	-4

Analysis of wings collected at checking stations during the 1982 season indicates that statewide production was up compared to 1981, however, overall production was still below average. Poor production was particularly noticeable for the northern portion of the state and specifically Box Elder County.

Sage grouse bagged per hunter and per hunter-day.

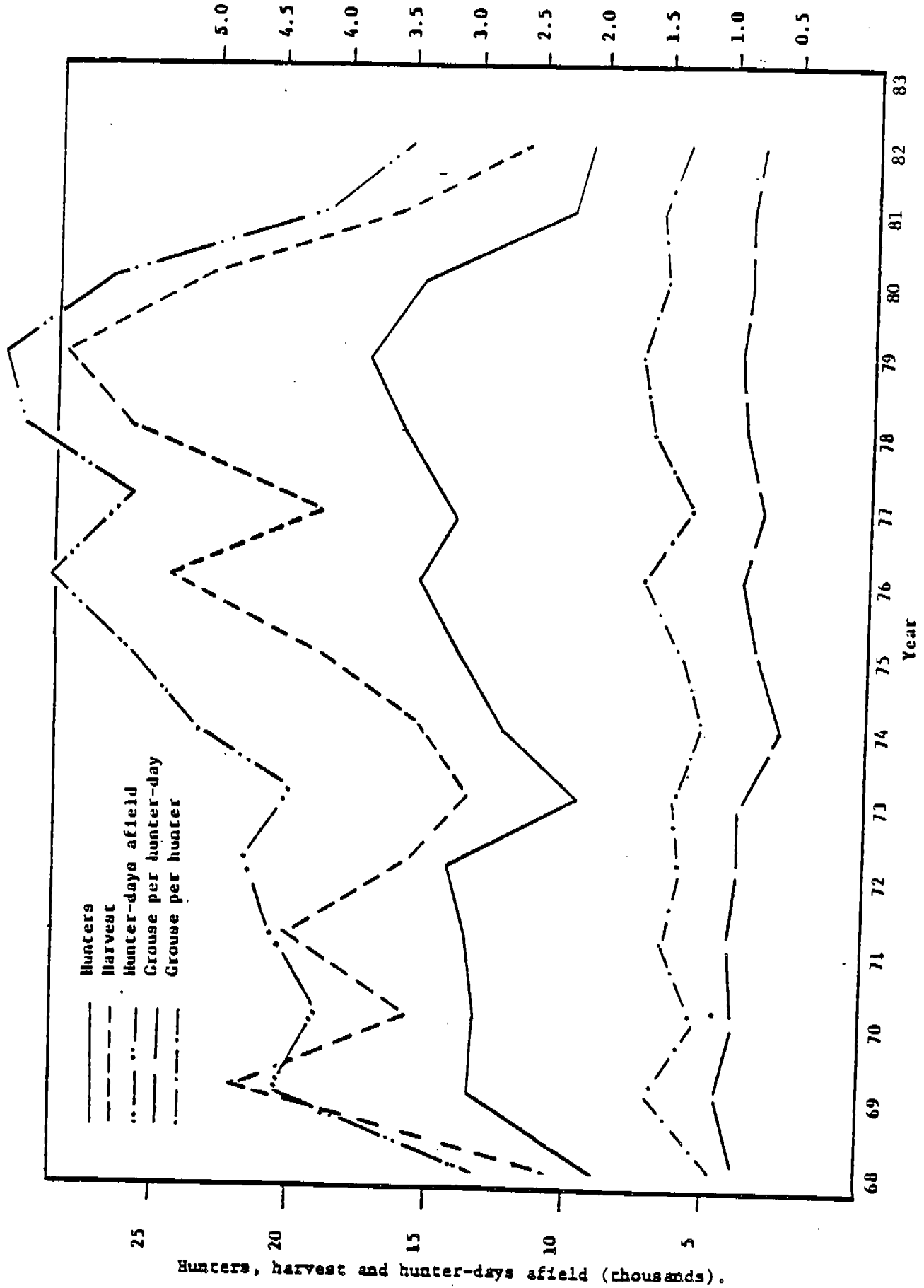


Figure 1. Statewide trend of sage grouse harvest statistics.

Hunters, harvest and hunter-days afield (thousands).

Table 1. Summary of sage grouse strutting counts by region and county, 1972-82.

Region and County	Year											
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<b>Northern Region</b>												
<b>BOX ELDER</b>												
No. strutting grounds counted	20	21	25	19	15	22	18	24	28	35	15	
Total male grouse counted	422	325	306	346	239	621	452	763	899	711	384	
County average	21	16	12	18	16	28	25	32	32	20	26	
% change from previous year - comparable grounds	-10	-30	-19	+29	0	+53	+3	+69	+9	-35	-24	
<b>CACHE</b>												
No. strutting grounds counted	3	2	3	3	3	3	1	3	1	3	1	
Total male grouse counted	57	50	44	100	35	45	15	32	18	18	19	
County average	19	25	15	33	12	15	15	11	18	6	19	
% change from previous year - comparable grounds	-16	+6	-14	+133	-68	+29	-40	0	+20	-33	+58	
<b>MORGAN</b>												
No. strutting grounds counted	3	3	3	3	3	3	3	3	3	3	3	
Total male grouse counted	53	61	63	41	52	43	111	75	131	57	65	
County average	18	20	21	14	17	14	37	25	44	19	22	
% change from previous year - comparable grounds	+29	+15	+3	-35	+27	-17	+158	-32	+76	-57	+16	
<b>RICH</b>												
No. strutting grounds counted	9	12	14	10	8	13	15	11	11	13	7	
Total male grouse counted	254	299	389	268	326	321	417	382	236	259	153	
County average	28	25	28	27	41	25	28	35	21	20	22	
% change from previous year - comparable grounds	-18	-13	+31	-32	+57	-13	+17	+11	-40	+5	-21	



Table 1 (continued)

Region and County	Year										
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
<b>SUMMIT</b>											
No. strutting grounds counted	5	5	5	4	6	6	6	8	1	7	2
Total male grouse counted	152	13	113	88	107	169	91	116	15	60	11
County average	30	28	23	22	18	28	15	15	15	9	6
(all strutting grounds)											
% change from previous year - comparable grounds	-32	-18	-18	-30	-10	+52	-29	+5	+15	+13	-50
<b>REGIONAL TOTALS</b>											
No. strutting grounds counted	40	43	50	39	35	47	43	49	44	61	28
Total male grouse counted	938	873	915	843	759	1,199	1,086	1,368	1,299	1,105	632
Average grouse per ground	23	20	18	22	23	26	25	28	30	18	23
(all strutting grounds)											
% change from previous year - comparable grounds	-16	-20	-1	-1	+8	+19	+10	+29	-2	-27	-20
<b>Southern Region</b>											
<b>GARFIELD</b>											
No. strutting grounds counted	14	14	14	14	14	10	11	9	8	11	9
Total male grouse counted	330	166	327	233	201	192	224	211	97	298	359
County average	24	12	23	17	14	19	20	23	12	27	39
(all strutting grounds)											
% change from previous year - comparable grounds	-7	-50	+114	-35	-14	+2	+24	0	-48	+114	+78
<b>WAYNE</b>											
No. strutting grounds counted	12	10	11	11	13	12	12	9	8	14	14
Total male grouse counted	311	231	237	160	260	256	166	221	32	284	300
County average	26	23	22	15	20	21	14	25	4	20	21
(all strutting grounds)											
% change from previous year - comparable grounds	+18	-21	+3	-33	+3	+19	-31	-59	--	--	--

Table 1 (continued)

Region and County	Year										
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
<b>BEAVER</b>											
No. strutting grounds counted	5	5	5	6	8	7	7	6	5	7	7
Total male grouse counted	153	82	110	122	108	90	66	134	113	140	131
County average (all strutting grounds)	31	16	22	20	14	13	9	22	23	20	19
% change from previous year - comparable grounds	+9	-47	+34	+1	-32	+8	-27	+137	+1	+6	-6
<b>IRON</b>											
No. strutting grounds counted	7	0	9	9	9	5	10	5	6	7	9
Total male grouse counted	66	0	86	51	26	54	87	83	84	101	111
County average (all strutting grounds)	9	--	10	6	3	11	9	17	14	14	12
% change from previous year - comparable grounds	+42	--	--	-41	-50	+108	+11	+48	+1	+20	-3
<b>SEVIER</b>											
No. strutting grounds counted	1	1	1	--	2	3	4	4	--*	2	4
Total male grouse counted	0	0	9	--	2	26	23	9	--	0	5
County average (all strutting grounds)	0	--	9	--	1	9	6	2	--	0	1
% change from previous year - comparable grounds	--	--	--	--	--	+200	-11	60	--	--	--

\*Poor counting conditions due to snow.

Table 1 (continued)

Region and County	Year										
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
<b>MILLARD</b>											
No. strutting grounds counted	--	--	--	--	1	1	1	--	--*	1	1
Total male grouse counted	--	--	--	--	11	3	14	--	--	22	22
County average (all strutting grounds)	--	--	--	--	11	3	14	--	--	22	22
% change from previous year - comparable grounds	--	--	--	--	---	-73	+367	--	--	--	0
<b>REGIONAL TOTALS</b>											
No. strutting grounds counted	40	31	40	40	47	37	45	33	27	42	44
Total male grouse counted	865	479	769	566	608	618	580	691	326	845	928
Average grouse per ground (all strutting grounds)	22	15	19	14	13	17	13	21	12	20	21
% change from previous year - comparable grounds	+7	-40	+49	-30	-13	+14	-13	-22	-32	+46	+33
<b>Central Region</b>											
<b>SANPETE</b>											
No. strutting grounds counted	1	2	2	2	2	2	2	2	2	2	2
Total male grouse counted	2	0	0	5	10	4	7	6	9	9	11
County average (all strutting grounds)	2	--	--	3	5	2	4	3	5	5	6
% change from previous year - comparable grounds	-75	--	--	--	+100	-60	+75	-14	+17	0	+22
<b>TOOELE</b>											
No. strutting grounds counted	5	5	5	5	5	5	5	5	5	5	5
Total male grouse counted	128	60	95	59	80	77	37	116	131	46	28
County average (all strutting grounds)	26	12	19	12	16	15	7	23	26	9	6
% change from previous year - comparable grounds	0	-35	+43	-30	+15	-4	-52	-38	+13	-64	-64

Table 1 (continued)

Region and County	Year										
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
<b>WASATCH</b>											
No. strutting grounds counted	2	2	2	2	2	2	2	2	2	2	2
Total male grouse counted	102	52	99	201	216	206	184	119	45	45	18
County average (all strutting grounds)	51	26	50	101	108	103	92	60	23	23	9
% change from previous year - comparable grounds	+46	-49	+90	+103	+7	-5	-11	-35	-62	0	-60
<b>REGIONAL TOTALS</b>											
No. strutting grounds counted	8	9	9	9	9	9	9	9	9	9	9
Total male grouse counted	232	112	194	265	306	287	228	197	185	100	57
Average grouse per ground (all strutting grounds)	29	12	22	29	34	32	25	22	21	11	6
% change from previous year - comparable grounds	+15	-42	+65	+45	+12	-6	-21	-35	-24	-51	-43
<b>Northeastern Region</b>											
<b>DAGGETT</b>											
No. strutting grounds counted	4	5	4	3	3	3	3	3	5	6	6
Total male grouse counted	26	41	53	30	40	55	78	47	51	68	18
County average (all strutting grounds)	7	8	13	10	13	18	26	16	10	11	3
% change from previous year - comparable grounds	28	+31	-5	-19	+33	+38	+42	-40	-19	+20	-57
<b>DUCHESNE</b>											
No. strutting grounds counted	5	5	11	11	15	14	14	10	16	16	15
Total male grouse counted	74	43	172	172	245	161	227	93	120	112	156
County average (all strutting grounds)	15	9	16	16	16	12	16	9	8	7	10
% change from previous year - comparable grounds	0	-41	+44	-5	-14	-20	+37	-35	+5	0	+15

Table 1 (continued)

Region and County	Year											
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<b>UINTAH</b>												
No. strutting grounds counted	6	11	11	9	10	11	13	11	12	10	12	
Total male grouse counted	118	156	163	240	257	245	454	338	126	174	242	
County average (all strutting grounds)	20	14	15	27	26	22	35	31	11	17	20	
% change from previous year - comparable grounds	+77	-25	+8	+29	0	-16	+63	-18	-67	+56	+40	
<b>REGIONAL TOTALS</b>												
No. strutting grounds counted	15	21	26	23	28	28	30	24	33	32	33	
Total male grouse counted	218	240	388	442	542	461	759	478	297	354	416	
Average grouse per ground (all strutting grounds)	15	11	15	19	19	17	25	20	9	11	13	
% change from previous year - comparable grounds	+32	-25	+13	+12	-3	-13	+51	-25	-48	+27	+17	
<b>Southeastern Region</b>												
<b>CARBON</b>												
No. strutting grounds counted	1	0	8	2	5	9	5	--	--	6	1	
Total male grouse counted	40	0	77	65	134	140	41	--	--	2	0	
County average (all strutting grounds)	40	--	10	33	27	16	8	--	--	3	--	
% change from previous year - comparable grounds	+2	--	--	+48	+83	-10	-64	--	--	--	--	
<b>EMERY</b>												
No. strutting grounds counted	3	0	3	--	1	2	1	--	--	--	2	
Total male grouse counted	11	0	2	--	13	33	12	--	--	--	9	
County average (all strutting grounds)	4	--	1	--	13	17	12	--	--	--	5	
% change from previous year - comparable grounds	+270	--	--	--	--	+23	-25	--	--	--	--	

Table 1 (continued)

Region and County	Year										
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
<b>SAN JUAN</b>											
No. strutting grounds counted	6	4	6	6	6	4	5	4	5	4	4
Total male grouse counted	168	105	137	115	98	117	96	67	41	63	47
County average (all strutting grounds)	28	26	23	19	16	29	18	17	8	16	12
%change from previous year - comparable grounds	+11	+42	-19	-9	-14	+22	-17	+1	-33	+65	-25
<b>REGIONAL TOTALS</b>											
No. strutting grounds counted	10	4	17	8	12	15	11	4	5	10	7
Total male grouse counted	219	105	216	180	245	290	149	67	41	65	56
Average grouse per ground (all strutting grounds)	22	26	13	23	20	19	14	17	8	7	8
%change from previous year - comparable grounds	+13	+42	-19	+21	+20	+4	-37	+1	-33	+58	-28
<b>STATE TOTALS</b>											
No. strutting grounds counted	113	108	142	119	131	136	138	120	116	154	121
Total male grouse counted	2,472	1,809	2,482	2,296	2,460	2,855	2,802	2,808	2,148	2,469	2,089
Average grouse per ground (all strutting grounds)	22	17	18	19	19	21	20	23	19	16	17
%change from previous year - comparable grounds	-1	-26	+17	-4	+2	+6	-15	-13	-20	-9	-1

Table 2. Sage grouse summer inventory summary, 1982.

Region and County	Distinct Broods		Mean Brood	Mixed Yng & Adults		Adults w/o Yng	Total Adults	Total Yng	Young/100 Ad	Veh. Miles	Hours of Effort		Birds/100 Hr
	# Ad	Yng		Ad	Yng						Veh. Horse	Walk	
<b>Northern Region</b>													
Box Elder	12	12	47	2	9	30	44	56	127	40	6	36	238
Cache	0	0	0	0	0	0	0	0	--	190	13	3	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	0	0	0	0	0	13	13	0	--	160	6	10	77
Rich	11	11	49	2	3	48	61	52	85	1,098	37	0	188
Summit	3	3	8	0	0	7	10	8	80	0	0	18	100
Weber	0	0	0	0	0	0	0	0	--	181	16	0	--
<b>REGIONAL TOTALS</b>	<b>26</b>	<b>26</b>	<b>104</b>	<b>4</b>	<b>12</b>	<b>98</b>	<b>128</b>	<b>116</b>	<b>91</b>	<b>1,669</b>	<b>78</b>	<b>67</b>	<b>144</b>
<b>Central Region</b>													
Juab	0	0	0	0	0	0	0	0	--	90	4	0	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	11	11	70	13	40	11	35	110	314	180	1	31	426
Tooele	3	3	10	2	5	9	14	15	107	145	9	0	207
Utah	--	--	--	--	--	--	--	--	--	--	--	--	--
Wasatch	11	11	53	9	35	33	53	88	166	347	26	0	362
<b>REGIONAL TOTALS</b>	<b>25</b>	<b>25</b>	<b>133</b>	<b>24</b>	<b>80</b>	<b>53</b>	<b>102</b>	<b>213</b>	<b>209</b>	<b>762</b>	<b>40</b>	<b>31</b>	<b>342</b>
<b>Southern Region</b>													
Beaver	1	1	4	13	5	14	28	9	32	80	3	0	62
Garfield	7	8	24	13	30	21	42	54	128	204	16	7	291
Iron	5	9	32	7	17	17	33	49	148	0	0	26	315
Kane	--	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	14	14	62	6	27	32	52	89	193	170	15	3	783
<b>REGIONAL TOTALS</b>	<b>27</b>	<b>32</b>	<b>122</b>	<b>39</b>	<b>79</b>	<b>84</b>	<b>155</b>	<b>201</b>	<b>130</b>	<b>454</b>	<b>34</b>	<b>36</b>	<b>429</b>
<b>Northeastern Region</b>													
Daggett	8	8	41	4	18	4	16	59	369	140	19	6	300
Duchesne	28	28	149	49	150	21	98	299	305	400	23	9	845
Uintah	43	43	213	32	82	86	161	295	183	322	26	0	1,036
<b>REGIONAL TOTALS</b>	<b>79</b>	<b>79</b>	<b>403</b>	<b>85</b>	<b>250</b>	<b>111</b>	<b>275</b>	<b>653</b>	<b>237</b>	<b>862</b>	<b>68</b>	<b>15</b>	<b>800</b>
<b>Southeastern Region</b>													
Carbon	--	--	--	--	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>STATE TOTALS</b>	<b>157</b>	<b>157</b>	<b>762</b>	<b>485</b>	<b>152</b>	<b>421</b>	<b>660</b>	<b>1,183</b>	<b>179</b>	<b>3,747</b>	<b>220</b>	<b>149</b>	<b>460</b>

Table 3. Trend of sage grouse young per 100 adults, 1972-82.

Region and County	Year											Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	83	225	119	106	250	75	125	81	84	68	127	
Cache	171	80	161	329	486	450	--	0	300	122	--	
Davis	--	--	--	--	--	--	--	--	--	--	--	
Morgan	600	245	131	64	71	35	414	66	89	120	--	
Rich	55	132	153	94	106	81	273	101	33	85	85	
Summit	173	146	275	52	247	106	316	221	74	114	80	
Weber	144	500	--	--	200	0	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	<b>99</b>	<b>167</b>	<b>131</b>	<b>102</b>	<b>170</b>	<b>77</b>	<b>194</b>	<b>99</b>	<b>67</b>	<b>82</b>	<b>91</b>	<b>119</b>
<u>Central Region</u>												
Juab	1800	500	--	--	--	76	46	262	204	245	--	
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	
Sanpete	177	138	89	280	414	257	224	154	267	348	314	
Tooele	322	318	314	168	286	123	283	449	143	101	107	
Utah	--	--	--	--	--	--	--	--	--	--	--	
Wasatch	145	68	101	118	123	54	93	163	170	236	166	
<b>REGIONAL TOTALS</b>	<b>216</b>	<b>106</b>	<b>141</b>	<b>138</b>	<b>187</b>	<b>77</b>	<b>112</b>	<b>204</b>	<b>171</b>	<b>171</b>	<b>209</b>	<b>152</b>
<u>Southern Region</u>												
Beaver	467	329	219	205	181	69	156	100	142	104	32	
Garfield	93	121	143	277	174	174	176	272	383	84	128	
Iron	37	350	46	--	--	80	313	229	269	113	148	
Kane	336	450	--	--	0	--	--	57	--	--	--	
Millard	--	--	--	--	--	--	--	--	--	--	--	
Piute	--	--	317	67	0	--	--	--	--	--	--	
Sevier	--	500	400	0	533	0	625	--	--	--	--	
Washington	--	--	--	--	--	--	--	--	--	--	--	
Wayne	62	394	166	545	286	115	308	288	291	263	193	
<b>REGIONAL TOTALS</b>	<b>76</b>	<b>311</b>	<b>157</b>	<b>287</b>	<b>194</b>	<b>103</b>	<b>224</b>	<b>230</b>	<b>235</b>	<b>154</b>	<b>130</b>	<b>197</b>
<u>Northeastern Region</u>												
Daggett	273	150	266	51	190	169	198	169	200	230	369	
Duchesne	219	--	161	120	161	53	199	127	248	235	305	
Uintah	105	312	446	107	249	235	269	279	401	253	183	
<b>REGIONAL TOTALS</b>	<b>134</b>	<b>234</b>	<b>321</b>	<b>97</b>	<b>206</b>	<b>154</b>	<b>226</b>	<b>191</b>	<b>297</b>	<b>242</b>	<b>237</b>	<b>210</b>
<u>Southeastern Region</u>												
Carbon	125	328	185	116	214	46	164	400	--	64	--	
Emery	--	--	0	--	--	--	--	--	--	--	--	
Grand	--	0	--	400	25	3	--	71	--	--	--	
San Juan	26	375	82	47	22	24	94	--	400	350	--	
<b>REGIONAL TOTALS</b>	<b>56</b>	<b>340</b>	<b>100</b>	<b>63</b>	<b>68</b>	<b>25</b>	<b>142</b>	<b>223</b>	<b>450</b>	<b>83</b>	<b>--</b>	<b>155</b>
<b>STATE TOTALS</b>	<b>100</b>	<b>195</b>	<b>160</b>	<b>120</b>	<b>171</b>	<b>87</b>	<b>181</b>	<b>175</b>	<b>163</b>	<b>142</b>	<b>179</b>	<b>149</b>



Table 4. Trend of sage grouse mean brood size, 1972-82.

Region and County	Year											Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	3.93	4.69	4.07	3.81	5.59	4.36	4.76	4.32	3.36	3.97	3.92	
Cache	4.88	4.00	4.62	5.00	6.25	4.50	--	--	1.00	3.50	--	
Davis	--	--	--	--	--	--	--	--	--	--	--	
Morgan	6.00	4.40	4.75	3.80	4.25	3.50	6.44	4.00	5.60	5.14	--	
Rich	4.69	4.48	3.91	4.00	6.04	3.83	5.24	4.58	3.36	3.67	4.45	
Summit	4.73	4.56	5.00	3.75	5.00	4.50	5.77	5.00	3.78	3.67	2.67	
Weber	6.50	5.00	--	--	2.00	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	<b>4.58</b>	<b>4.55</b>	<b>4.17</b>	<b>4.03</b>	<b>5.45</b>	<b>4.17</b>	<b>5.20</b>	<b>4.52</b>	<b>3.61</b>	<b>3.94</b>	<b>4.00</b>	<b>4.42</b>
<u>Central Region</u>												
Juab	7.50	5.00	--	--	--	4.50	3.33	4.25	5.00	2.00	--	
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	
Sanpete	5.33	4.75	4.00	4.00	5.67	3.20	4.57	6.44	5.58	4.80	6.36	
Tooele	4.81	4.90	5.25	5.50	5.07	4.17	5.13	5.64	4.09	3.00	3.33	
Utah	--	--	--	--	--	--	--	--	--	--	--	
Wasatch	3.06	4.00	4.24	3.86	4.70	3.27	4.90	4.90	4.09	3.83	4.81	
<b>REGIONAL TOTALS</b>	<b>3.90</b>	<b>4.38</b>	<b>4.49</b>	<b>4.22</b>	<b>4.98</b>	<b>3.44</b>	<b>4.82</b>	<b>5.18</b>	<b>4.41</b>	<b>3.44</b>	<b>5.32</b>	<b>4.33</b>
<u>Southern Region</u>												
Beaver	3.83	4.31	3.64	3.90	4.95	3.57	4.29	4.00	4.14	5.50	4.00	
Garfield	3.25	3.50	5.41	4.18	3.50	4.00	4.00	4.39	5.00	4.50	3.43	
Iron	3.71	5.33	6.33	--	--	3.00	5.50	4.68	4.12	3.57	6.40	
Kane	4.00	4.50	--	--	--	--	--	--	--	--	--	
Millard	--	--	--	--	--	--	--	--	--	--	--	
Piute	--	--	5.67	1.00	--	--	--	--	--	--	--	
Sevier	--	5.00	4.00	--	5.33	--	6.25	--	--	--	--	
Washington	--	--	--	--	--	--	--	--	--	--	--	
Wayne	3.36	5.17	4.70	5.45	3.95	4.40	4.56	4.74	4.60	3.96	4.43	
<b>REGIONAL TOTALS</b>	<b>3.53</b>	<b>4.72</b>	<b>4.54</b>	<b>4.27</b>	<b>4.18</b>	<b>4.00</b>	<b>4.55</b>	<b>4.61</b>	<b>4.48</b>	<b>3.93</b>	<b>4.52</b>	<b>4.28</b>
<u>Northeastern Region</u>												
Daggett	3.80	4.65	4.93	3.25	4.55	4.80	5.05	5.10	4.75	4.11	5.13	
Duchesne	5.40	--	3.82	3.60	4.11	3.56	4.00	4.73	4.42	3.91	5.32	
Uintah	4.60	4.60	5.06	4.69	5.21	4.48	4.87	4.67	5.55	5.27	4.95	
<b>REGIONAL TOTALS</b>	<b>4.60</b>	<b>4.62</b>	<b>4.82</b>	<b>4.24</b>	<b>4.70</b>	<b>4.30</b>	<b>4.94</b>	<b>4.79</b>	<b>5.05</b>	<b>4.50</b>	<b>5.10</b>	<b>4.66</b>
<u>Southeastern Region</u>												
Carbon	4.14	3.50	3.92	2.67	5.05	4.14	5.17	4.67	--	--	--	
Emery	--	--	--	--	--	--	--	--	--	--	--	
Grand	--	--	--	4.00	3.00	--	--	5.00	--	--	--	
San Juan	3.93	5.67	6.65	3.50	--	3.29	--	--	--	3.50	--	
<b>REGIONAL TOTALS</b>	<b>4.05</b>	<b>4.43</b>	<b>5.47</b>	<b>3.17</b>	<b>4.77</b>	<b>3.71</b>	<b>5.17</b>	<b>3.25</b>	<b>--</b>	<b>3.50</b>	<b>--</b>	<b>4.17</b>
<b>STATE TOTALS</b>	<b>4.16</b>	<b>4.58</b>	<b>4.57</b>	<b>4.15</b>	<b>4.89</b>	<b>3.99</b>	<b>4.97</b>	<b>4.77</b>	<b>4.51</b>	<b>4.05</b>	<b>4.85</b>	<b>4.46</b>

Table 5. Trend of sage grouse observed per 100 hours, 1972-82.

Region and County	Year											Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<b>Northern Region</b>												
Box Elder	467	166	459	187	457	670	452	1,835	575	571	238	
Cache	183	150	250	261	410	29	--	0	154	232	--	
Davis	--	--	--	--	--	--	--	--	--	--	--	
Morgan	111	345	514	140	433	218	160	412	427	471	77	
Rich	348	298	428	452	724	580	838	952	393	648	188	
Summit	349	119	188	109	268	361	369	226	111	135	100	
Weber	92	40	--	--	12	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	<b>319</b>	<b>188</b>	<b>398</b>	<b>204</b>	<b>429</b>	<b>461</b>	<b>400</b>	<b>545</b>	<b>315</b>	<b>440</b>	<b>144</b>	<b>370</b>
<b>Central Region</b>												
Juab	181	30	--	0	0	580	255	588	206	380	--	
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	
Sarapete	106	135	85	86	263	255	594	743	319	303	426	
Tooele	786	161	665	257	781	311	265	776	710	627	207	
Utah	--	--	--	--	--	--	--	--	--	--	--	
Wasatch	364	666	529	520	1,353	1,253	767	652	360	147	362	
<b>REGIONAL TOTALS</b>	<b>341</b>	<b>244</b>	<b>402</b>	<b>329</b>	<b>740</b>	<b>618</b>	<b>556</b>	<b>695</b>	<b>410</b>	<b>347</b>	<b>342</b>	<b>468</b>
<b>Southern Region</b>												
Beaver	486	277	460	188	555	428	242	89	920	613	62	
Garfield	358	258	603	112	226	211	545	468	229	480	291	
Iron	1,133	200	241	--	--	771	220	1,315	342	1,085	315	
Kane	253	550	--	--	233	0	--	588	--	--	--	
Millard	--	--	--	--	--	--	--	--	--	--	--	
Plute	--	--	833	62	100	--	--	--	--	--	--	
Sevier	--	--	500	0	950	83	207	--	--	--	--	
Washington	--	--	--	--	--	--	--	--	--	--	--	
Wayne	555	742	335	209	491	240	444	494	338	538	783	
<b>REGIONAL TOTALS</b>	<b>494</b>	<b>393</b>	<b>413</b>	<b>134</b>	<b>348</b>	<b>265</b>	<b>380</b>	<b>617</b>	<b>346</b>	<b>653</b>	<b>429</b>	<b>404</b>
<b>Northeastern Region</b>												
Daggett	346	308	381	132	352	575	637	1,274	489	800	300	
Duchesne	118	0	196	84	347	446	392	258	446	574	845	
Uintah	594	310	459	386	716	513	397	705	474	398	1,036	
<b>REGIONAL TOTALS</b>	<b>349</b>	<b>233</b>	<b>358</b>	<b>217</b>	<b>473</b>	<b>509</b>	<b>427</b>	<b>673</b>	<b>483</b>	<b>507</b>	<b>800</b>	<b>423</b>
<b>Southeastern Region</b>												
Carbon	309	500	146	49	147	283	295	200	5	219	--	
Emery	--	--	11	0	--	0	0	--	--	--	--	
Grand	25	25	--	500	1,125	550	71	240	--	--	--	
San Juan	775	300	856	321	304	341	194	--	100	50	--	
<b>REGIONAL TOTALS</b>	<b>432</b>	<b>215</b>	<b>360</b>	<b>128</b>	<b>220</b>	<b>332</b>	<b>237</b>	<b>210</b>	<b>36</b>	<b>141</b>	<b>--</b>	<b>231</b>
<b>STATE TOTALS</b>	<b>373</b>	<b>237</b>	<b>387</b>	<b>196</b>	<b>428</b>	<b>445</b>	<b>407</b>	<b>621</b>	<b>374</b>	<b>444</b>	<b>401</b>	<b>391</b>

Table 6. Summary of sage grouse hunter success and distribution of harvest and hunter pressure by region and county, 1982.

Region and County	Sample Size*	Hunter-days Afield	Birds Bagged	Birds per Hunter-day	% of Pressure	% of Harvest
<b>NORTHERN REGION</b>						
BOX ELDER	122	2,881	2,252	0.78	18.40	18.19
CACHE	34	950	475	0.50	6.07	3.84
DAVIS	+8	168	61	0.36	1.08	0.50
MORGAN	24	567	168	0.30	3.62	1.36
RICH	42	1,057	536	0.51	6.75	4.33
SUMMIT	39	904	291	0.32	5.77	2.35
WEBER	17	582	229	0.39	3.72	1.86
<b>REGIONAL TOTALS</b>	<b>286</b>	<b>7,111</b>	<b>4,015</b>	<b>0.56</b>	<b>45.40</b>	<b>32.43</b>
<b>CENTRAL REGION</b>						
JUAB	+4	91	15	0.17	0.59	0.12
SALT LAKE	+8	183	383	2.08	1.17	3.09
SANPETE	+12	444	137	0.31	2.84	1.11
TOOELE	+12	214	183	0.86	1.37	1.49
UTAH	+28	705	352	0.50	4.50	2.85
WASATCH	+30	735	398	0.54	4.70	3.22
<b>REGIONAL TOTALS</b>	<b>94</b>	<b>2,375</b>	<b>1,471</b>	<b>0.62</b>	<b>15.17</b>	<b>11.88</b>
<b>SOUTHERN REGION</b>						
BEAVER	11	260	321	1.24	1.66	2.60
GARFIELD	33	1,026	1,149	1.12	6.56	9.28
IRON	15	383	352	0.92	2.45	2.85
KANE	0	0	0	0.00	0.00	0.00
MILLARD	+4	76	76	1.00	0.49	0.62
PIUTE	8	229	214	0.93	1.47	1.73
SEVIER	14	398	337	0.85	2.54	2.72
WASHINGTON	+2	91	505	5.50	0.59	4.08
WAYNE	42	965	1,180	1.22	6.16	9.53
<b>REGIONAL TOTALS</b>	<b>129</b>	<b>3,433</b>	<b>4,138</b>	<b>1.21</b>	<b>21.92</b>	<b>33.42</b>
<b>NORTHEASTERN REGION</b>						
DAGGETT	8	168	168	1.00	1.08	1.36
DUCHESNE	30	827	705	0.85	5.28	5.69
UINTAH	63	1,440	1,670	1.16	9.20	13.49
<b>REGIONAL TOTALS</b>	<b>101</b>	<b>2,436</b>	<b>2,544</b>	<b>1.04</b>	<b>15.56</b>	<b>20.55</b>
<b>SOUTHEASTERN REGION</b>						
CARBON	+4	137	61	0.44	0.88	0.50
EMERY	+1	30	0	0.00	0.20	0.00
GRAND	2	61	15	0.25	0.39	0.12
SAN JUAN	+1	30	45	1.50	0.20	0.37
<b>REGIONAL TOTALS</b>	<b>8</b>	<b>260</b>	<b>122</b>	<b>0.47</b>	<b>1.66</b>	<b>0.99</b>
UNKNOWN	2	45	91	2.00	0.29	0.74
<b>STATE TOTALS</b>	<b>620</b>	<b>15,663</b>	<b>12,383</b>	<b>0.79</b>	<b>100.00</b>	<b>100.00</b>

\*Total hunter trips from questionnaire returns.

+Closed season - Counties hunted were either reported incorrectly, or hunters were hunting illegally.

Table 7. Summary of sage grouse bagged per hunter-day by region and county, 1976-82.

Region and County	Year						
	1976	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>							
Box Elder	1.02	0.70	1.12	1.27	1.41	1.26	0.78
Cache	0.78	0.51	0.43	0.74	0.61	0.40	0.50
Davis	0.43	0.45	0.53	0.00	0.27	0.22*	0.36*
Morgan	0.50	0.57	0.69	0.68	0.57	0.74	0.30
Rich	0.77	0.59	0.87	0.76	0.53	0.53	0.51
Summit	0.80	0.61	0.80	0.77	0.48	0.38	0.32
Weber	0.79	0.79	0.84	0.58	0.85	0.16	0.39
REGIONAL TOTALS	0.77	0.61	0.80	0.87	0.94	0.76	0.56
<u>Central Region</u>							
Juab	1.11	0.64	0.86	1.24	0.94	1.14*	0.17*
Salt Lake	*	*	0.38*	0.87*	0.64*	0.75*	2.08*
Sanpete	1.37	0.61	0.55	0.59	0.56	1.40*	0.31*
Tooele	0.54	0.60	0.54*	0.69*	0.86	0.54	0.86*
Utah	0.47	1.10	0.74	0.90	0.57	0.64	0.50*
Wasatch	0.80	0.71	0.71	0.67	0.58	0.50	0.54
REGIONAL TOTALS	0.71	0.73	0.69	0.76	0.64	0.68	0.62
<u>Southern Region</u>							
Beaver	0.98	0.83	1.12	1.06	0.86	1.06	1.24
Garfield	0.90	0.71	1.09	1.24	1.20	1.34	1.12
Iron	1.20	0.84	0.71	0.50	0.82	0.92	0.92
Kane	0.00	2.00	3.00	0.00	0.00	0.71	0.00
Millard	0.33	0.50	0.50	0.00	0.70	0.00	1.00*
Piute	1.50	0.57	0.46	0.92	0.79	2.00	0.93
Sevier	0.77	0.48	1.07	0.55	0.58	0.45	0.85
Washington	*	*	2.00*	2.00*	1.75	0.00	5.50*
Wayne	1.26	0.69	0.94	1.49	1.19	1.42	1.22
REGIONAL TOTALS	0.96	0.69	0.99	1.11	0.96	1.17	1.21
<u>Northeastern Region</u>							
Daggett	1.19	1.50	1.15	1.28	0.77	0.84	1.00
Duchesne	1.05	0.84	1.14	1.26	0.70	1.00	0.85
Uintah	1.36	1.22	1.21	1.21	0.94	1.01	1.16
REGIONAL TOTALS	1.29	1.14	1.18	1.23	0.82	0.97	1.04
<u>Southeastern Region</u>							
Carbon	1.26	0.85	0.93	0.82	0.53	0.19*	0.44*
Emery	0.50	0.33	1.14	0.92	1.26	1.00*	0.00*
Grand	2.00	0.00	1.33	0.00	1.50	0.38	0.25
San Juan	0.00	2.00	1.37	0.25	0.17	0.00	1.50*
REGIONAL TOTALS	1.24	0.79	1.03	0.77	0.69	0.28	0.47
Unknown counties	0.87	0.46	0.55	1.95	1.25	0.22	2.00
Mixed counties	3.00	2.00	2.40	0.00	0.00	0.00	0.00
Illegal areas	0.36	0.51	0.75	0.00	0.00	0.00	(0.62)*
STATE TOTALS	0.87	0.72	0.87	0.92	0.85	0.85	0.79

\*Closed season.

Table 8. Percentage distribution of sage grouse harvest by region and county, 1976-82.

Region and County	Year						
	1976	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>							
Box Elder	8.32	7.04	14.04	15.08	31.07	23.29	18.19
Cache	11.53	5.75	4.71	6.59	3.06	1.87	3.84
Davis	1.89	0.81	0.62	0.00	0.60	0.27*	0.50*
Morgan	1.57	2.19	2.39	2.37	1.19	2.68	1.36
Rich	10.22	6.56	7.41	10.91	5.74	4.95	4.33
Summit	4.28	7.85	4.94	6.33	3.50	2.95	2.35
Weber	4.45	3.89	4.55	1.80	1.64	0.40	1.86
<b>REGIONAL TOTALS</b>	<b>42.26</b>	<b>34.09</b>	<b>38.66</b>	<b>43.13</b>	<b>46.80</b>	<b>36.41</b>	<b>32.43</b>
<u>Central Region</u>							
Juab	1.73	1.46	0.93*	1.34*	1.12*	2.14*	0.12*
Salt Lake	*	*	0.23*	1.34*	0.67*	1.61*	3.09*
Sanpete	3.95	2.02	1.39	1.80	1.34	0.94*	1.11*
Tooele	3.54	5.59	1.00*	0.57	3.28	2.54	1.49*
Utah	2.64	7.21	5.48	4.84	3.80	4.55*	2.85*
Wasatch	3.95	8.26	8.64	6.18	5.96	1.74	3.22
<b>REGIONAL TOTALS</b>	<b>16.47</b>	<b>25.75</b>	<b>17.67</b>	<b>16.06</b>	<b>16.17</b>	<b>13.52</b>	<b>11.88</b>
<u>Southern Region</u>							
Beaver	3.79	1.54	1.39	0.87	2.38	4.55	2.60
Garfield	3.79	3.32	5.40	4.32	5.29	14.86	9.28
Iron	0.49	1.30	1.16	0.26	1.04	1.61	2.85
Kane	0.00	0.16	0.23	0.00	0.00	0.67	0.00
Millard	0.25	0.40	0.15	0.00	0.52	0.00	0.62*
Piute	0.49	0.32	0.46	1.13	1.64	0.80	1.73
Sevier	1.98	1.21	2.24	1.03	2.09	1.34	2.72
Washington	*	*	0.77*	0.10*	0.52*	0.00	4.08*
Wayne	5.52	3.97	3.55	6.07	5.07	6.29	9.53
<b>REGIONAL TOTALS</b>	<b>16.31</b>	<b>12.39</b>	<b>15.35</b>	<b>13.79</b>	<b>18.55</b>	<b>30.12</b>	<b>33.42</b>
<u>Northeastern Region</u>							
Daggett	1.57	2.67	2.39	3.29	1.27	4.28	1.36
Duchesne	1.89	3.97	5.56	6.28	4.92	4.15	5.69
Uintah	9.88	12.63	10.73	9.68	7.60	10.31	13.49
<b>REGIONAL TOTALS</b>	<b>13.34</b>	<b>19.27</b>	<b>18.67</b>	<b>19.25</b>	<b>13.79</b>	<b>18.74</b>	<b>20.55</b>
<u>Southeastern Region</u>							
Carbon	4.04	4.86	4.40	4.27	2.24	0.40*	0.50*
Emery	0.08	0.32	1.93	1.24	1.79	0.13*	0.00*
Grand	0.16	0.00	0.31	0.00	0.22	0.40	0.12
San Juan	0.00	0.32	0.85	0.15	0.07	0.00	0.37*
<b>REGIONAL TOTALS</b>	<b>4.28</b>	<b>5.51</b>	<b>7.48</b>	<b>5.66</b>	<b>4.32</b>	<b>0.94</b>	<b>0.99</b>
Unknown counties	5.60	2.41	1.23	2.11	0.37	0.27	0.74
Mixed counties	1.73	0.49	0.93	0.00	0.00	0.00	0.00
Illegal areas	(0.66)	(1.37)	(2.93)	(2.78)	(2.31)	(10.04)*	(17.95)*
<b>STATE TOTALS</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

\*Closed season.

Table 9. Percentage distribution of sage grouse hunting pressure by region and county, 1976-82.

Region and County	Year						
	1976	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>							
Box Elder	7.06	7.31	10.92	10.96	17.48	15.74	18.40
Cache	12.77	8.13	9.58	8.16	4.23	3.99	6.07
Davis	3.78	1.29	1.01	0.00	1.89	1.03*	1.08*
Morgan	2.71	2.75	3.02	3.23	1.77	3.08	3.62
Rich	11.41	8.02	7.37	13.19	9.15	7.98	6.75
Summit	4.64	9.25	5.36	7.64	6.18	6.61	5.77
Weber	4.85	3.57	4.69	2.85	1.64	2.17	3.72
<b>REGIONAL TOTALS</b>	<b>47.22</b>	<b>40.32</b>	<b>41.96</b>	<b>46.03</b>	<b>42.33</b>	<b>40.59</b>	<b>45.40</b>
<u>Central Region</u>							
Juab	1.36	1.64	0.94*	1.00*	1.01*	1.60*	0.59*
Salt Lake	*	*	0.54*	1.42*	0.88*	1.82*	1.17*
Sanpete	2.50	2.40	2.21	2.80	2.02	0.57*	2.84*
Tooele	5.71	6.73	1.61*	0.76*	3.22	3.99	1.37*
Utah	4.85	4.39	6.43	4.98	5.62	6.04*	4.50*
Wasatch	4.28	8.43	10.59	8.49	8.77	2.96	4.70
<b>REGIONAL TOTALS</b>	<b>19.97</b>	<b>25.34</b>	<b>22.32</b>	<b>19.45</b>	<b>21.51</b>	<b>16.99</b>	<b>15.17</b>
<u>Southern Region</u>							
Beaver	3.35	1.35	1.07	0.76	2.33	3.65	1.66
Garfield	3.64	3.39	4.29	3.23	3.72	9.46	6.56
Iron	0.36	1.11	1.41	0.47	1.07	1.48	2.45
Kane	0.21	0.06	0.07	0.00	0.00	0.80	0.00
Millard	0.64	0.59	0.27	0.28	0.63	0.00	0.49*
Piute	0.29	0.41	0.87	1.14	1.77	0.34	1.47
Sevier	2.21	1.81	1.81	1.80	3.03	2.51	2.54
Washington	*	*	0.34*	0.05*	0.25*	0.00	0.59*
Wayne	6.06	3.78	4.15	3.28	3.75	3.76	6.16
<b>REGIONAL TOTALS</b>	<b>14.76</b>	<b>13.05</b>	<b>13.40</b>	<b>11.48</b>	<b>16.40</b>	<b>22.01</b>	<b>21.92</b>
<u>Northeastern Region</u>							
Daggett	1.14	1.29	1.81	2.37	1.39	4.33	1.08
Duchesne	1.57	3.39	4.22	4.60	5.93	3.53	5.28
Uintah	6.28	7.49	7.71	7.40	6.88	3.67	9.20
<b>REGIONAL TOTALS</b>	<b>8.99</b>	<b>12.17</b>	<b>13.74</b>	<b>14.37</b>	<b>14.20</b>	<b>16.53</b>	<b>15.56</b>
<u>Southeastern Region</u>							
Carbon	2.78	4.15	4.09	4.79	3.60	1.82*	0.88*
Emery	0.14	0.70	1.47	1.23	1.20	0.11*	0.20*
Grand	0.07	0.06	0.20	0.14	0.12	0.91	0.39
San Juan	0.00	0.12	0.54	0.57	0.38	0.00	0.20*
<b>REGIONAL TOTALS</b>	<b>3.00</b>	<b>5.03</b>	<b>6.30</b>	<b>6.74</b>	<b>5.30</b>	<b>2.85</b>	<b>1.66</b>
Unknown counties	5.56	3.92	1.94	1.93	0.25	1.03	0.29
Mixed counties	0.50	0.18	0.34	0.00	0.00	0.00	0.00
Illegal areas	1.57	1.94	3.42	0.00	0.00	(12.99)*	(13.91)*
<b>STATE TOTALS</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

\*Closed season.

Table 10. Statewide summary of sage grouse harvest statistics, 1951-82.

Year	Total* Hunters	Total* Harvest	Hunter-days Afield	Sage Grouse Per Hunter-day	Sage Grouse Per Hunter
1951	840	2,458	--	--	2.93
1952	678	2,230	--	--	3.29
1953	895	2,581	--	--	2.88
1954	802	2,510	--	--	3.13
1955	579	1,742	--	--	3.01
1956	495	1,375	--	--	2.97
1957	470	1,303	--	--	2.77
1958	567	1,797	--	--	3.17
1959	699	1,875	--	--	2.68
1960	861	2,246	--	--	2.61
1961	1,078**	1,918**	--	--	1.78**
1962***	2,382	5,352	5,097	1.05	1.89
1963	12,366	3,793	15,564	0.89	1.12
1964	4,362	6,827	5,807	1.18	1.56
1965	3,243	3,881	4,673	0.83	1.20
1966	2,612	3,962	4,006	0.99	1.52
1967	5,336	5,089	7,860	0.65	0.95
1968	9,115	11,109	13,601	0.82	1.22
1969	12,894	22,282	20,466	1.09	1.73
1970	12,036	15,877	18,506	0.86	1.32
1971	12,893	20,013	1,509	0.93	1.55
1972	13,040	15,983	22,232	0.72	1.23
1973	10,017	13,926	19,049	0.73	1.39
1974	12,214	15,215	23,516	0.65	1.25
1975	13,996	18,916	25,720	0.74	1.35
1976	15,283	24,541	28,342	0.87	1.61
1977	14,078	18,615	25,759	0.72	1.32
1978	16,231	25,938	29,861	0.87	1.60
1979	16,927	28,280	30,682	0.92	1.67
1980	15,219	22,770	26,893	0.85	1.50
1981	10,083	15,857	18,617	0.85	1.57
1982	8,997	12,383	15,663	0.79	1.38
<hr/>					
TOTALS (1963-1982)	220,942	305,257	358,326	0.85	1.38
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AVERAGES (1963-1981)	11,155	15,414	18,035	0.85	1.38
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\*The number of sage grouse hunters and consequently harvest was limited by permits available from 1951 through 1962.

\*\*Estimated.

\*\*\*Totals and indices based on indiscrete data.

Table 11. Sage grouse field bag check summary, 1982.

Region and County	ALL HUNTS				COMPLETE HUNTS				
	Total Parties	Total Hunters	Total Hours	Total Birds	Total Complete Hunts	Total Hunters	Total Hours	Total Birds	Birds/100 Hr Hunter
<u>Northern Region</u>									
Box Elder	283	808	4,856	633	293	808	4,856	633	13
Cache	26	55	193	3	26	55	193	3	2
Davis	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--
Rich	68	184	713	51	68	184	713	51	7
Summit	--	--	--	--	--	--	--	--	--
Weber	1	1	1	0	1	1	1	0	--
<b>REGIONAL TOTALS</b>	<b>378</b>	<b>1,048</b>	<b>5,763</b>	<b>687</b>	<b>378</b>	<b>1,048</b>	<b>5,763</b>	<b>687</b>	<b>12</b>
<u>Central Region</u>									
Juab	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<u>Southern Region</u>									
Beaver	--	--	--	--	--	--	--	--	--
Garfield	14	50	118	55	7	17	44	32	72
Iron	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--
Plute	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--
Wayne	31	92	540	83	31	92	540	83	15
<b>REGIONAL TOTALS</b>	<b>45</b>	<b>142</b>	<b>658</b>	<b>138</b>	<b>38</b>	<b>109</b>	<b>584</b>	<b>115</b>	<b>20</b>
<u>Northeastern Region</u>									
Daggett	16	34	102	31	15	31	99	30	30
Duchesne	6	10	27	3	3	4	9	2	22
Uintah	87	188	596	159	46	101	359	121	34
<b>REGIONAL TOTALS</b>	<b>109</b>	<b>232</b>	<b>725</b>	<b>193</b>	<b>64</b>	<b>136</b>	<b>467</b>	<b>153</b>	<b>33</b>
<u>Southeastern Region</u>									
Carbon	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>STATE TOTALS</b>	<b>532</b>	<b>1,422</b>	<b>7,146</b>	<b>1,018</b>	<b>480</b>	<b>1,293</b>	<b>6,814</b>	<b>955</b>	<b>14</b>
									<b>0.74</b>



Table 12. Sage grouse hunter success trend determined by field bag checks, 1977-82.

Region and County	1977		1978		1979		1980		1981		1982	
	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter
<u>Northern Region</u>												
Box Elder	20	0.96	31	1.36	38	1.40	29	1.22	22	1.05	13	0.78
Cache	7	0.26	11	0.45	7	0.27	3	0.13	4	0.15	2	0.05
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	32	0.59	--	--	7	0.22	--	--	--	--	--	--
Rich	4	0.22	14	0.58	14	0.58	7	0.33	5	0.24	7	0.28
Summit	45	0.93	--	--	11	0.34	6	0.20	21	0.43	--	--
Weber	0	0.00	7	0.24	--	--	6	0.27	--	--	--	--
REGIONAL TOTALS	12	0.56	23	0.98	25	0.93	18	0.82	19	0.86	12	0.66
<u>Central Region</u>												
Juab	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	24	0.73	--	--	--	--	68	1.00	58	0.95	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--	--
Wasatch	33	0.79	35	0.81	32	0.73	41	0.85	--	--	--	--
REGIONAL TOTALS	31	0.77	35	0.81	32	0.73	58	0.95	58	0.95	--	--
<u>Southern Region</u>												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	18	0.71	26	1.09	65	1.83	--	--	41	2.00	72	1.88
Iron	74	1.56	--	--	73	1.90	36	0.84	18	0.18	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	80	2.00	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	14	0.74	21	0.99	20	1.12	39	2.11	30	1.76	15	0.90
REGIONAL TOTALS	15	0.76	21	1.00	28	1.34	36	1.78	30	1.71	20	1.06
<u>Northeastern Region</u>												
Daggett	60	0.71	27	0.82	40	1.31	28	1.04	41	0.93	30	0.97
Duchesne	26	0.60	140	1.75	72	1.44	--	--	--	--	22	0.50
Uintah	21	0.78	21	1.14	41	1.19	28	1.49	23	0.73	34	1.20
REGIONAL TOTALS	24	0.75	23	1.03	41	1.23	28	1.23	25	0.75	33	1.13
<u>Southeastern Region</u>												
Carbon	36	1.14	31	1.10	11	0.42	--	--	--	--	--	--
Emery	--	--	0	0.00	--	--	--	--	--	--	--	--
Grand	--	--	27	1.14	20	0.50	--	--	--	--	--	--
San Juan	15	0.80	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	29	1.05	31	1.10	12	0.43	--	--	--	--	--	--
STATE TOTALS	15	0.65	23	0.98	27	1.01	21	0.92	21	0.91	14	0.74

Table 13. Sex and age composition of harvested sage grouse, 1982.

Region and County	Sample Size	Adults			Young			Young/ 100 Adults	Young/ 100 Hens
		M	F	Total	M	F	Total		
<b>Northern Region</b>									
Box Elder	385	99	165	264	46	75	121	45	73
Cache	4	2	0	2	2	0	2	100	--
Davis	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--
Rich	34	0	12	12	10	12	22	183	183
Summit	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>423</b>	<b>101</b>	<b>177</b>	<b>278</b>	<b>58</b>	<b>87</b>	<b>145</b>	<b>52</b>	<b>82</b>
<b>Central Region</b>									
Juab	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>Southern Region</b>									
Beaver	--	--	--	--	--	--	--	--	--
Garfield	193	14	57	71	45	77	122	172	214
Iron	21	1	11	12	7	2	9	75	82
Kane	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--
Wayne	268	24	57	81	82	105	187	231	328
<b>REGIONAL TOTALS</b>	<b>482</b>	<b>39</b>	<b>125</b>	<b>164</b>	<b>134</b>	<b>184</b>	<b>318</b>	<b>194</b>	<b>254</b>
<b>Northeastern Region</b>									
Daggett	38	2	14	16	11	11	22	138	157
Duchesne	--	--	--	--	--	--	--	--	--
Uintah	254	19	55	74	101	79	180	243	327
<b>REGIONAL TOTALS</b>	<b>292</b>	<b>21</b>	<b>69</b>	<b>90</b>	<b>112</b>	<b>90</b>	<b>202</b>	<b>224</b>	<b>293</b>
<b>Southeastern Region</b>									
Carbon	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>STATE TOTALS</b>	<b>1,197</b>	<b>161</b>	<b>371</b>	<b>532</b>	<b>304</b>	<b>361</b>	<b>665</b>	<b>125</b>	<b>179</b>

Table 14. Sex and age composition of harvested sage grouse from 1979-82.

Region and County	1979						1980						1981						1982						Averages 1977-81											
	Sex Ratio %		Young/100H		100A		Sex Ratio %		Young/100H		100A		Sex Ratio %		Young/100H		100A		Sex Ratio %		Young/100H		100A		Sex Ratio %		Young/100H		100A							
	n	M	F	n	M	F	n	M	F	n	M	F	n	M	F	n	M	F	n	M	F	n	M	F	n	M	F	n	M	F						
Northern Region																																				
Box Elder	622	43	57	166	106	611	42	58	91	55	574	31	69	76	53	385	145	240	73	45																
Cache	27	30	70	100	68	14	36	64	140	100	12	42	58	175	140	4	4	0																		
Davis																																				
Morgan	4	100	0																																	
Rich	131	43	57	96	66	101	45	55	85	53	40	35	65	89	67	34	10	24	183	183																
Summit	8	62	38	150	43	7	29	71	25	17	6	17	83																							
Weber	17	47	53	160	89																															
<b>REGIONAL TOTALS</b>	<b>809</b>	<b>43</b>	<b>57</b>	<b>149</b>	<b>94</b>	<b>733</b>	<b>42</b>	<b>58</b>	<b>90</b>	<b>55</b>	<b>632</b>	<b>32</b>	<b>68</b>	<b>76</b>	<b>54</b>	<b>423</b>	<b>159</b>	<b>264</b>	<b>256</b>	<b>228</b>	<b>82</b>	<b>52</b>														
Central Region																																				
Juab																																				
Salt Lake																																				
Sanpete																																				
Tooele																																				
Utah																																				
Wasatch	60	45	55	227	131	17	47	53	400	240																										
<b>REGIONAL TOTALS</b>	<b>60</b>	<b>45</b>	<b>55</b>	<b>227</b>	<b>131</b>	<b>84</b>	<b>41</b>	<b>59</b>	<b>109</b>	<b>71</b>	<b>30</b>	<b>27</b>	<b>73</b>	<b>80</b>	<b>67</b>																					
Southern Region																																				
Beaver																																				
Garfield	177	37	63	292	181	119	43	57	278	170	207	44	56	291	184	193	59	134	214	172																
Iron	62	44	56	260	170	45	47	53	157	96	18	67	33	233	64	21	8	13	82	75																
Kane																																				
Millard																																				
Piute																																				
Sevier																																				
Washington																																				
Wayne	342	42	58	186	111	277	41	59	291	204	299	47	53	364	215	268	106	162	328	231																
<b>REGIONAL TOTALS</b>	<b>581</b>	<b>41</b>	<b>59</b>	<b>221</b>	<b>134</b>	<b>541</b>	<b>46</b>	<b>54</b>	<b>273</b>	<b>183</b>	<b>524</b>	<b>47</b>	<b>53</b>	<b>329</b>	<b>193</b>	<b>482</b>	<b>173</b>	<b>309</b>	<b>254</b>	<b>194</b>																
Northeastern Region																																				
DeWette	101	35	65	220	180	25	40	60	267	178	23	48	52	113	64	38	13	25	157	138																
Duchesne	50	46	54	330	194						6	17	83	200	200																					
Uintah	355	41	59	272	175	218	35	65	227	183	227	42	58	275	199	254	120	134	327	243																
<b>REGIONAL TOTALS</b>	<b>506</b>	<b>40</b>	<b>60</b>	<b>266</b>	<b>178</b>	<b>243</b>	<b>35</b>	<b>65</b>	<b>231</b>	<b>183</b>	<b>256</b>	<b>42</b>	<b>58</b>	<b>252</b>	<b>178</b>	<b>292</b>	<b>133</b>	<b>159</b>	<b>293</b>	<b>224</b>																
Southeastern Region																																				
Carbon	14						19	42	58	200	111																									
Emery																																				
Grand																																				
San Juan																																				
<b>REGIONAL TOTALS</b>							<b>19</b>	<b>42</b>	<b>58</b>	<b>200</b>	<b>111</b>																									
<b>STATE TOTALS</b>	<b>1956</b>	<b>42</b>	<b>58</b>	<b>196</b>	<b>125</b>	<b>1580</b>	<b>41</b>	<b>59</b>	<b>153</b>	<b>101</b>	<b>1442</b>	<b>39</b>	<b>61</b>	<b>157</b>	<b>106</b>	<b>1197</b>	<b>465</b>	<b>732</b>	<b>629</b>	<b>470</b>	<b>1592</b>	<b>42</b>	<b>58</b>	<b>183</b>	<b>119</b>											

n = wing sample size.

# FOREST GROUSE

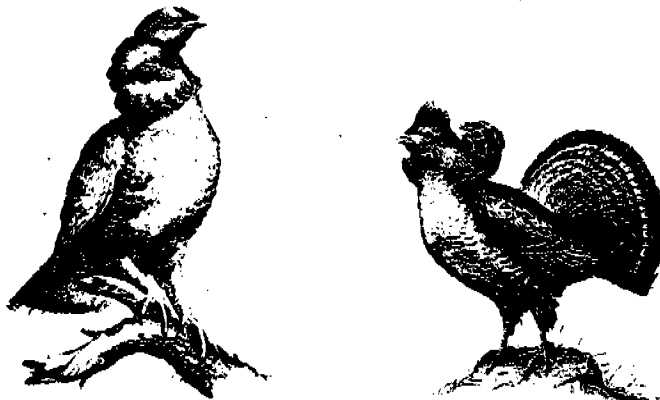
## SUMMARY

Judging from harvest statistics for the fall of 1981, the 1982 breeding populations of both ruffed and blue grouse were lower than in 1981. Production of ruffed grouse indicated by brood counts was up from 1981 and above average. The number of ruffed grouse observed during brood surveys and the apparent density (grouse per 100 hours) suggested a favorable increase in abundance in 1982 compared to 1981. However, harvest data contradicted this conclusion.

Production of blue grouse was similar to 1981 and slightly exceeded the 10-year average. Blue grouse observed per 100 hours of effort remained 17 percent above average. A total of 116 forest grouse broods were observed during 1982 compared with 132 in 1981 and 115 in 1980.

Harvest statistics indicated lower density of forest grouse. Total harvest decreased from 27,894 during 1981 to 21,778 in 1982, another 22 percent decrease in harvest. Total hunters again decreased from 14,329 in 1981 to 12,384 in 1982, and days afield decreased from 34,305 to 28,767.

Field bag check data confirmed the decreased success shown by the questionnaire. Limited blue grouse wing data, however, indicated an increase in both young per 100 adults and young per 100 hens, in the Central and Northeastern regions.



## Brood Counts

### Ruffed Grouse

Results of the annual random brood survey for 1982 are shown in Table 1 of this section. Long-term trends of young-adult ratios, mean brood size and ruffed grouse observed per 100 hours are found in Tables 2-4. A summary of effort expended on ruffed and blue grouse brood counts combined is shown in Table 9. Survey results for 1982 compared to 1981 and the previous 10-year average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Total ruffed grouse observed	227	+25	+9
Young per 100 adults	404	+30	+31
Mean brood size	5.13	+12	+16
Ruffed grouse observed per 100 hours	34	+26	+36
Total hours effort (forest grouse)	696	-6	-24

Harvest statistics for 1981 indicated a poor breeding population for 1982.

Effort on brood surveys decreased slightly in comparison to 1981 and was significantly below average.

Total ruffed grouse observed increased from 1981 to 9 percent above average. Grouse observed per 100 hours was 26 percent higher than 1981.

Mean brood size, based on a sample of 22 broods (compared to 30 broods observed in 1981), remained slightly above the long-term average.

### Blue Grouse

Results of the annual random brood survey for 1982 are shown in Table 5 of this section. Long-term trends of young-adult ratios, mean brood size and blue grouse observed per 100 hours are found in Tables 6-8. Survey results for 1982 compared to 1981 and the 10-year average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Total blue grouse observed	631	-8	-3
Young per 100 adults	297	+8	+26
Mean brood size	4.06	+2	-6
Blue grouse observed per 100 hours	91	-2	+17
Total hours effort (forest grouse)	696	-6	-24

Harvest statistics for 1981 indicated a below average breeding population for 1982.

All indications from the 1982 summer surveys on blue grouse were that production was slightly above 1981, and 26 percent above the average.

However, total observations declined slightly, probably a result of decreased effort. The number of grouse observed per 100 hours of effort decreased from 1981 but was 17 percent above average.

Wing samples collected at checking stations were limited, but indicated slightly increased production in the Central and Northeastern regions.

## Harvest

### Hunter Questionnaire

Results of the 1982 forest grouse (ruffed and blue grouse combined) hunter questionnaire are shown in Table 10. Long-term trends of forest grouse bagged per hunter-day, percent of harvest and percent of pressure (hunter-days) by county are found in Tables 11-13 and total statewide harvest statistics in Table 14. Harvest statistics for 1982 compared to 1981 and the 19-year (1963-81) average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Forest grouse hunters	12,384	-14	-19
Forest grouse harvested	21,778	-22	-41
Hunter-days afield	28,767	-16	-20
Forest grouse per hunter-day	0.76	-6	-25
Forest grouse per hunter	1.76	-10	-27
Percent ruffed grouse	34.5	+12	-12
Percent blue grouse	55.7	-13	+3
Percent unidentified	9.8	+85	+44

Results from the harvest questionnaire indicated significantly lower forest grouse population levels than implied by summer surveys. Total harvest continued to drop from the record harvest of 1978. Hunter success (grouse per hunter-day) was 25 percent below average as was the number of grouse harvested per hunter. Hunter pressure again decreased 19 percent below the 19-year average.

### Field Bag Checks

A summary of field bag check data for 1982 is found in Table 15. Hunter success trends determined via this method are shown in Table 16. Results of the 1982 survey compared to 1981 and the 10-year (1972-81) average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Total hunters checked	702	-40	-63
Total hours hunted	2,884	-42	-62
Forest grouse per hunter (complete hunts)	0.49	-4	-17
Forest grouse bagged per 100 hours	12	+9	-25
Average hours per hunter-day (complete hunts)	4.16	-8	-1
Hours hunted per grouse bagged (complete hunts)	8.49	-4	+7

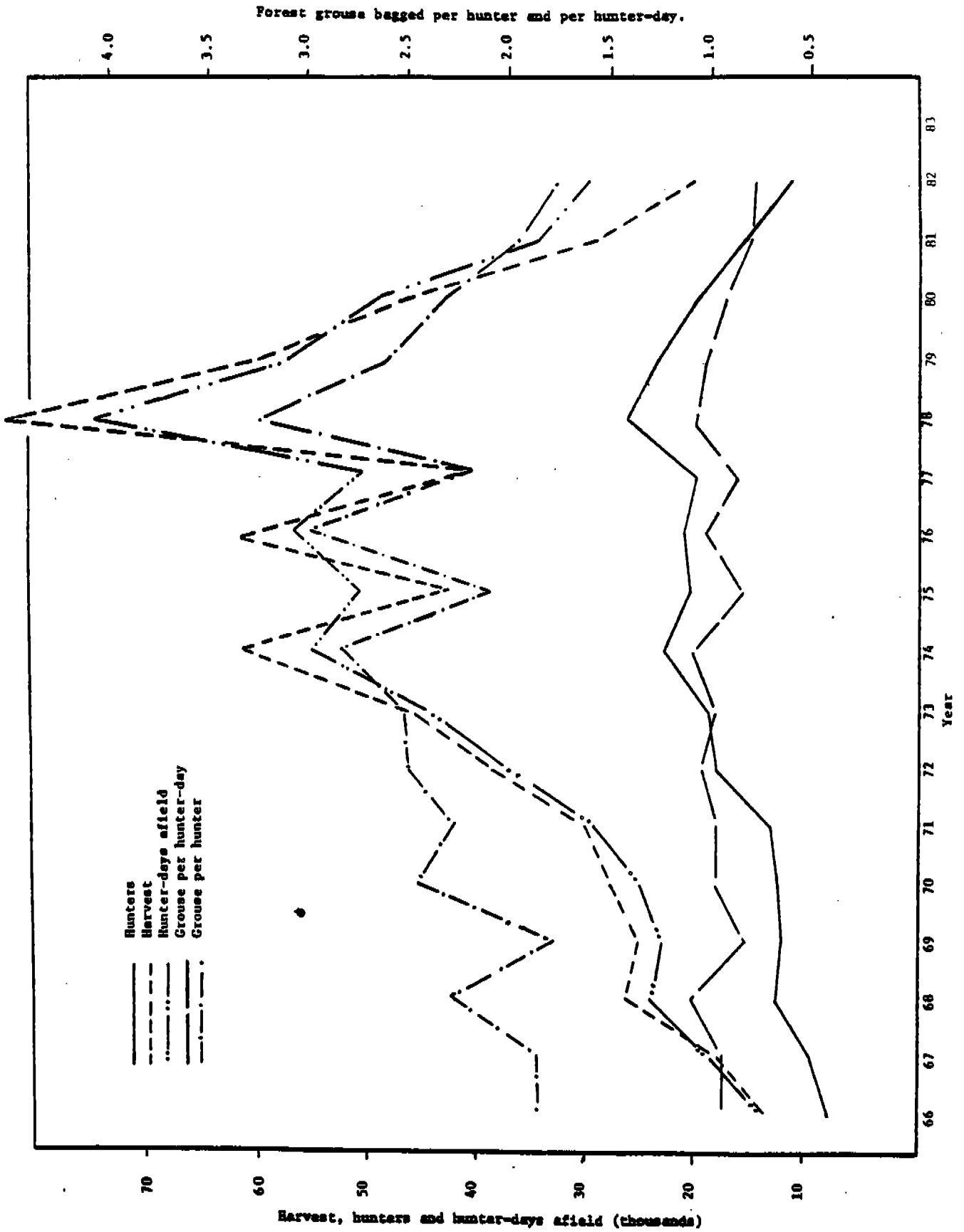


Figure 1. Statewide trends of forest grouse harvest statistics.

Table 1. Ruffed grouse summer inventory, 1982.

Region and County	Distinct Broods		Mean Brood	Mixed Yng & Adults		Total Adults	Total Yng	Young/100 Ad	Veh. Miles	Hours of Effort			Birds/100 Hr
	# Ad	Yng		Ad	Yng					Veh.	Horse	Walk	
<b>Northern Region</b>													
Box Elder	0	0	--	0	0	0	0	--	25	4	0	0	4
Cache	0	0	--	0	0	1	0	--	100	8	27	0	35
Davis	0	0	--	0	0	0	0	--	118	7	0	3	10
Morgan	0	0	--	0	0	0	0	--	0	0	4	0	4
Rich	--	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--	--
Weber	0	0	--	0	0	0	0	--	263	15	3	3	21
<b>REGIONAL TOTALS</b>	<b>0</b>	<b>0</b>	<b>--</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>--</b>	<b>506</b>	<b>34</b>	<b>34</b>	<b>6</b>	<b>74</b>
<b>Central Region</b>													
Juab	0	0	--	0	0	0	0	--	140	5	0	0	5
Salt Lake	0	0	--	0	0	0	0	--	273	10	0	13	23
Sanpete	17	17	5.47	10	45	29	138	476	449	24	23	10	57
Tooele	5	5	4.00	4	13	2	33	300	35	5	0	0	5
Utah	0	0	--	4	11	4	11	275	425	39	0	0	39
Wasatch	0	0	--	0	0	0	0	--	166	24	0	4	28
<b>REGIONAL TOTALS</b>	<b>22</b>	<b>22</b>	<b>5.13</b>	<b>18</b>	<b>69</b>	<b>44</b>	<b>182</b>	<b>414</b>	<b>1,488</b>	<b>107</b>	<b>23</b>	<b>27</b>	<b>157</b>
<b>Southern Region</b>													
Beaver	--	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	0	0	--	0	0	0	0	--	0	0	317	0	317
Washington	--	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>0</b>	<b>0</b>	<b>--</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>--</b>	<b>0</b>	<b>0</b>	<b>317</b>	<b>0</b>	<b>317</b>
<b>Northeastern Region</b>													
Daggett	0	0	--	0	0	0	0	--	130	17	2	0	19
Duchesne	0	0	--	0	0	0	0	--	518	33	0	9	42
Uintah	0	0	--	0	0	0	0	--	94	7	26	17	50
<b>REGIONAL TOTALS</b>	<b>0</b>	<b>0</b>	<b>--</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>--</b>	<b>742</b>	<b>57</b>	<b>28</b>	<b>26</b>	<b>111</b>
<b>Southeastern Region</b>													
Carbon	--	--	--	--	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>STATE TOTALS</b>	<b>22</b>	<b>22</b>	<b>113</b>	<b>18</b>	<b>69</b>	<b>45</b>	<b>182</b>	<b>404</b>	<b>2,736</b>	<b>198</b>	<b>402</b>	<b>59</b>	<b>659</b>
													<b>34</b>



Table 2. Trend of ruffed grouse young per 100 adults, 1972-82.

Region and County	Year												Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982		
<u>Northern Region</u>													
Box Elder	--	--	0	250	250	--	--	--	--	--	--	--	--
Cache	900	--	300	329	300	300	262	450	138	--	--	--	--
Davis	388	--	--	--	--	--	--	1,100	--	--	--	--	--
Morgan	--	--	400	--	500	--	100	400	600	--	--	--	--
Rich	375	600	--	317	300	--	--	--	--	--	--	--	--
Summit	650	333	500	217	250	475	400	500	200	200	--	--	--
Weber	--	450	--	--	--	400	--	500	500	267	--	--	--
<b>REGIONAL TOTALS</b>	<b>453</b>	<b>417</b>	<b>369</b>	<b>286</b>	<b>245</b>	<b>364</b>	<b>260</b>	<b>460</b>	<b>217</b>	<b>250</b>	<b>--</b>	<b>--</b>	<b>332</b>
<u>Central Region</u>													
Juab	--	300	400	500	100	--	--	--	--	--	--	--	--
Salt Lake	--	--	125	--	167	0	--	--	200	92	--	--	--
Sanpete	329	264	195	233	387	289	462	506	373	390	476	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	300	--	--
Utah	475	125	313	57	56	150	300	280	217	300	275	--	--
Wasatch	--	300	--	--	--	--	--	300	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>358</b>	<b>231</b>	<b>221</b>	<b>164</b>	<b>273</b>	<b>246</b>	<b>424</b>	<b>416</b>	<b>295</b>	<b>282</b>	<b>414</b>	<b>--</b>	<b>291</b>
<u>Southern Region</u>													
Beaver	--	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	200	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--	--
Plute	--	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	333	311	500	233	--	575	300	400	600	500	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	367	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>333</b>	<b>325</b>	<b>147</b>	<b>233</b>	<b>--</b>	<b>575</b>	<b>300</b>	<b>400</b>	<b>600</b>	<b>500</b>	<b>--</b>	<b>--</b>	<b>379</b>
<u>Northeastern Region</u>													
Daggett	--	--	--	--	500	--	--	240	--	475	--	--	--
Duchesne	367	--	333	600	124	67	300	450	--	700	--	--	--
Uintah	--	--	600	--	500	--	600	--	300	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>367</b>	<b>--</b>	<b>400</b>	<b>600</b>	<b>195</b>	<b>67</b>	<b>343</b>	<b>300</b>	<b>300</b>	<b>520</b>	<b>--</b>	<b>--</b>	<b>344</b>
<u>Southeastern Region</u>													
Carbon	--	--	480	200	350	300	--	--	--	--	--	--	--
Emery	--	300	400	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>--</b>	<b>300</b>	<b>467</b>	<b>200</b>	<b>350</b>	<b>300</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>323</b>
<b>STATE TOTALS</b>	<b>385</b>	<b>297</b>	<b>267</b>	<b>241</b>	<b>244</b>	<b>298</b>	<b>345</b>	<b>398</b>	<b>294</b>	<b>311</b>	<b>404</b>	<b>--</b>	<b>308</b>

Table 3. Trend of ruffed grouse mean brood size, 1972-82.

Region and County	Year											Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	--	--	--	5.00	2.50	--	--	--	--	--	--	--
Cache	9.00	--	5.00	3.83	3.00	4.00	4.33	5.14	3.67	--	--	--
Davis	4.80	--	--	--	--	--	--	9.00	--	--	--	--
Morgan	--	--	4.00	--	5.00	--	1.00	4.89	6.00	--	--	--
Rich	3.75	6.00	--	4.75	3.00	--	--	--	--	--	--	--
Summit	6.50	5.00	5.00	3.00	4.00	4.75	4.00	5.00	4.00	2.00	--	--
Weber	--	4.50	--	--	--	4.00	--	5.00	5.00	4.00	--	--
<b>REGIONAL TOTALS</b>	<b>5.08</b>	<b>5.00</b>	<b>4.54</b>	<b>4.00</b>	<b>3.08</b>	<b>4.25</b>	<b>3.88</b>	<b>5.20</b>	<b>4.33</b>	<b>3.33</b>	<b>--</b>	<b>4.27</b>
<u>Central Region</u>												
Juab	--	3.00	4.00	5.00	2.00	--	--	--	--	--	--	--
Salt Lake	--	--	4.00	--	5.00	--	--	--	2.00	2.20	--	--
Sanpete	4.67	4.60	3.00	4.50	5.36	4.44	5.11	5.79	5.14	5.47	5.47	4.00
Tooele	--	--	--	--	--	--	--	--	--	--	--	--
Utah	4.75	5.00	4.25	4.00	2.00	3.00	4.00	4.67	3.25	3.00	--	--
Wasatch	3.00	--	--	--	--	--	--	3.00	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>4.55</b>	<b>4.43</b>	<b>3.44</b>	<b>4.50</b>	<b>4.94</b>	<b>4.08</b>	<b>4.83</b>	<b>5.20</b>	<b>4.25</b>	<b>4.57</b>	<b>5.13</b>	<b>4.48</b>
<u>Southern Region</u>												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	2.00	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--
Plute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	4.29	4.00	5.00	2.33	--	5.75	3.00	4.80	6.00	5.00	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	5.50	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>4.29</b>	<b>4.33</b>	<b>4.40</b>	<b>2.33</b>	<b>--</b>	<b>5.75</b>	<b>3.00</b>	<b>4.80</b>	<b>6.00</b>	<b>5.00</b>	<b>--</b>	<b>4.43</b>
<u>Northeastern Region</u>												
Daggett	--	--	--	--	5.00	--	--	4.00	--	4.75	--	--
Duchesne	3.67	--	3.33	6.00	3.50	2.00	4.50	4.50	--	7.00	--	--
Uintah	--	--	6.00	--	5.00	--	6.00	--	6.00	--	--	--
<b>REGIONAL TOTALS</b>	<b>3.67</b>	<b>--</b>	<b>4.00</b>	<b>6.00</b>	<b>4.10</b>	<b>2.00</b>	<b>4.80</b>	<b>4.20</b>	<b>6.00</b>	<b>5.20</b>	<b>--</b>	<b>4.44</b>
<u>Southeastern Region</u>												
Carbon	--	--	4.80	2.00	3.50	3.00	--	--	--	--	--	--
Emery	--	5.00	4.00	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>--</b>	<b>5.00</b>	<b>4.67</b>	<b>2.00</b>	<b>3.50</b>	<b>3.00</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>3.63</b>
<b>STATE TOTALS</b>	<b>4.61</b>	<b>4.58</b>	<b>4.09</b>	<b>3.87</b>	<b>4.12</b>	<b>4.26</b>	<b>4.46</b>	<b>5.06</b>	<b>4.52</b>	<b>4.57</b>	<b>5.13</b>	<b>4.41</b>

Table 4. Trend of ruffed grouse observed per 100 hours, 1972-82.

Region and County	Year											Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	--	--	2	54	50	--	--	--	--	--	--	--
Cache	14	--	34	45	13	50	25	18	25	--	--	3
Davis	244	--	0	0	10	--	--	60	--	--	--	--
Morgan	--	--	136	0	33	--	8	149	20	--	--	--
Rich	61	140	--	--	27	--	--	--	--	--	--	--
Summit	100	62	185	46	100	144	61	600	21	--	--	--
Weber	--	--	--	--	0	111	--	16	17	31	--	--
<b>REGIONAL TOTALS</b>	<b>39</b>	<b>24</b>	<b>49</b>	<b>41</b>	<b>20</b>	<b>49</b>	<b>18</b>	<b>38</b>	<b>19</b>	<b>10</b>	<b>1</b>	<b>31</b>
<u>Central Region</u>												
Juab	--	33	250	27	40	--	--	--	--	--	--	--
Salt Lake	--	0	30	0	20	4	--	2	150	70	--	--
Sanpete	240	129	124	69	181	125	203	270	200	515	293	880
Tooele	--	0	0	0	0	0	--	--	--	--	14	38
Utah	37	23	73	32	19	25	30	39	37	14	--	--
Wasatch	50	--	--	0	0	--	--	48	3	--	--	--
<b>REGIONAL TOTALS</b>	<b>84</b>	<b>50</b>	<b>71</b>	<b>23</b>	<b>64</b>	<b>56</b>	<b>99</b>	<b>73</b>	<b>47</b>	<b>98</b>	<b>144</b>	<b>67</b>
<u>Southern Region</u>												
Beaver	--	--	0	--	--	--	--	--	--	--	--	--
Garfield	--	0	38	0	--	0	--	--	--	--	--	--
Iron	--	--	0	0	--	0	--	--	--	--	--	--
Kane	--	0	--	0	--	0	--	--	--	--	--	--
Millard	--	0	0	--	--	0	--	--	--	--	--	--
Piute	--	--	--	0	--	0	--	--	--	--	--	--
Sevier	22	10	8	2	--	12	2	15	3	2	--	--
Washington	--	--	0	0	--	0	--	--	--	--	--	--
Wayne	--	117	0	--	--	0	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>15</b>	<b>12</b>	<b>8</b>	<b>2</b>	<b>--</b>	<b>9</b>	<b>2</b>	<b>15</b>	<b>3</b>	<b>2</b>	<b>--</b>	<b>8</b>
<u>Northeastern Region</u>												
Daggett	--	0	0	0	20	0	--	85	--	164	--	--
Duchesne	28	0	30	11	47	9	46	48	--	12	--	--
Uintah	--	0	16	0	62	0	11	--	350	--	--	--
<b>REGIONAL TOTALS</b>	<b>10</b>	<b>0</b>	<b>20</b>	<b>5</b>	<b>44</b>	<b>4</b>	<b>21</b>	<b>26</b>	<b>350</b>	<b>26</b>	<b>--</b>	<b>56</b>
<u>Southeastern Region</u>												
Carbon	--	0	53	33	12	7	--	9	--	--	--	--
Emery	--	67	42	0	--	0	--	33	--	--	--	--
Grand	--	0	--	0	--	--	--	--	--	--	--	--
San Juan	--	0	0	0	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>--</b>	<b>28</b>	<b>26</b>	<b>11</b>	<b>7</b>	<b>3</b>	<b>--</b>	<b>12</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>15</b>
<b>STATE TOTALS</b>	<b>28</b>	<b>18</b>	<b>28</b>	<b>12</b>	<b>25</b>	<b>23</b>	<b>29</b>	<b>37</b>	<b>20</b>	<b>27</b>	<b>66</b>	<b>25</b>

Table 5. Blue grouse summer inventory summary, 1982.

Region and County	Distinct Broods		Mixed Yng & Adults		Total Adults	Total Yng	Total Young/100 Ad	Veh. Miles	Hours of Effort		Birds/100 Hr	
	# Ad	Yng	Ad	Yng					Veh.	Horse Walk		Total
<b>Northern Region</b>												
Box Elder	0	0	0	0	0	0	--	25	4	0	4	--
Cache	0	0	0	0	0	0	--	100	8	27	0	35
Davis	0	0	0	0	0	0	--	118	7	0	3	10
Morgan	0	0	0	0	0	0	--	0	0	4	0	4
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	3	3	12	4.00	0	0	400	263	15	3	3	21
<b>REGIONAL TOTALS</b>	<b>3</b>	<b>3</b>	<b>12</b>	<b>4.00</b>	<b>0</b>	<b>0</b>	<b>400</b>	<b>506</b>	<b>34</b>	<b>34</b>	<b>6</b>	<b>74</b>
<b>Central Region</b>												
Juab	0	0	0	0	0	0	--	140	5	0	0	25
Salt Lake	0	0	7	3	1	3	38	273	10	0	13	23
Sanpete	16	16	87	5.44	2	28	471	449	24	23	10	57
Tooele	0	0	0	0	0	0	--	35	5	0	0	5
Utah	2	2	6	3.00	2	7	100	425	39	0	0	39
Wasatch	1	1	3	3.00	2	5	200	166	24	0	4	28
<b>REGIONAL TOTALS</b>	<b>19</b>	<b>19</b>	<b>96</b>	<b>5.05</b>	<b>8</b>	<b>48</b>	<b>317</b>	<b>1,488</b>	<b>107</b>	<b>23</b>	<b>27</b>	<b>157</b>
<b>Southern Region</b>												
Beaver	5	5	13	2.60	2	7	214	110	10	0	0	10
Garfield	5	5	17	3.40	0	5	340	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	11	11	40	3.64	0	17	235	105	23	0	0	23
Piute	2	2	7	3.50	0	2	350	80	4	0	0	4
Sevier	23	23	93	4.04	2	45	238	0	0	317	0	317
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>46</b>	<b>46</b>	<b>170</b>	<b>3.70</b>	<b>28</b>	<b>76</b>	<b>245</b>	<b>295</b>	<b>37</b>	<b>317</b>	<b>0</b>	<b>354</b>
<b>Northeastern Region</b>												
Daggett	11	11	54	4.91	2	13	469	130	17	2	0	19
Duchesne	8	8	31	3.88	2	11	382	518	33	0	9	42
Uintah	7	7	19	2.71	0	8	238	94	7	26	17	50
<b>REGIONAL TOTALS</b>	<b>26</b>	<b>26</b>	<b>104</b>	<b>4.00</b>	<b>4</b>	<b>32</b>	<b>381</b>	<b>742</b>	<b>57</b>	<b>28</b>	<b>26</b>	<b>111</b>
<b>Southeastern Region</b>												
Carbon	--	--	--	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>STATE TOTALS</b>	<b>94</b>	<b>94</b>	<b>382</b>	<b>4.06</b>	<b>25</b>	<b>159</b>	<b>297</b>	<b>3,031</b>	<b>235</b>	<b>402</b>	<b>59</b>	<b>696</b>
												<b>91</b>

Table 6. Trend of blue grouse young per 100 adults, 1972-82.

Region and County	Year											Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<b>Northern Region</b>												
Box Elder	500	--	236	100	429	--	400	380	600	360	--	--
Cache	288	192	357	356	331	100	322	167	83	254	--	--
Davis	82	--	300	0	150	320	500	100	600	--	--	--
Morgan	250	375	300	130	341	117	230	0	233	200	--	--
Rich	300	--	--	167	500	--	--	--	300	--	--	--
Summit	533	314	--	143	333	333	560	325	400	389	--	--
Weber	68	700	625	0	400	400	425	280	425	221	400	400
<b>REGIONAL TOTALS</b>	191	222	305	194	333	167	357	205	217	271	400	246
<b>Central Region</b>												
Juab	--	50	--	500	--	--	200	200	124	300	--	--
Salt Lake	--	0	300	25	333	238	160	230	350	200	30	30
Sanpete	156	300	--	--	325	260	89	275	--	--	471	471
Tooele	--	143	179	86	227	82	108	225	141	138	--	--
Utah	375	415	222	0	300	27	266	169	279	88	223	223
Wasatch	600	--	333	400	400	--	800	214	--	--	200	200
<b>REGIONAL TOTALS</b>	321	285	218	192	277	120	156	200	167	153	317	209
<b>Southern Region</b>												
Beaver	--	--	500	--	--	--	--	200	--	200	214	214
Garfield	133	--	--	400	100	300	380	375	--	--	340	340
Iron	--	--	150	--	--	--	200	233	340	--	--	--
Kane	240	211	--	--	--	--	400	--	--	--	--	--
Millard	67	--	450	--	--	700	567	475	--	--	235	235
Piute	--	--	--	--	200	--	--	--	--	387	350	350
Sevier	100	100	320	233	106	86	214	100	179	155	238	238
Washington	271	533	350	--	500	--	600	400	--	500	--	--
Wayne	--	--	400	--	275	567	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	149	192	313	246	142	146	288	158	193	253	245	208
<b>Northeastern Region</b>												
Daggett	286	286	567	--	487	367	343	154	336	442	469	469
Duchesne	275	600	300	350	431	380	567	220	409	257	382	382
Uintah	557	500	250	300	525	350	500	460	354	380	238	238
<b>REGIONAL TOTALS</b>	339	344	311	320	461	372	486	202	366	371	381	357
<b>Southeastern Region</b>												
Carbon	92	--	243	167	321	500	225	100	350	200	--	--
Emery	--	667	--	--	--	300	--	--	--	--	--	--
Grand	114	0	43	200	110	300	--	--	--	100	--	--
San Juan	375	--	242	200	155	100	380	250	200	300	--	--
<b>REGIONAL TOTALS</b>	216	333	188	189	209	269	255	140	275	208	--	228
<b>STATE TOTALS</b>	224	237	284	195	281	181	278	188	219	274	297	236

Table 7. Trend of blue grouse mean brood size, 1972-82.

Region and County	Year											Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	5.00	--	5.06	3.00	5.75	--	4.00	3.80	6.00	3.60	--	--
Cache	5.50	4.66	4.95	5.30	4.48	3.40	4.46	2.50	3.75	3.67	--	--
Davis	2.67	--	--	--	4.00	3.67	5.00	3.50	6.00	--	--	--
Morgan	5.33	5.50	4.62	3.25	4.45	2.80	3.83	--	3.00	2.00	--	--
Rich	4.50	--	--	5.00	5.00	--	--	--	3.00	--	--	--
Summit	5.33	4.40	--	2.75	5.00	5.00	5.60	4.33	4.00	3.89	--	--
Weber	4.75	7.00	6.25	--	6.00	4.00	4.25	3.50	4.25	3.57	4.00	--
REGIONAL TOTALS	4.96	4.79	5.00	4.25	4.67	3.56	4.55	3.63	3.90	3.65	4.00	4.30
<u>Central Region</u>												
Juab	--	1.00	--	5.00	--	--	4.00	2.00	3.67	4.00	--	--
Salt Lake	--	--	6.00	1.00	5.00	4.75	2.67	3.29	3.50	--	--	--
Sanpete	2.80	3.00	--	--	3.25	4.33	4.00	2.75	--	--	5.44	--
Tooele	--	6.00	4.40	3.50	3.45	2.50	4.40	4.20	3.58	3.20	--	--
Utah	4.22	5.38	5.00	--	4.29	1.50	3.13	3.13	3.00	7.00	3.00	3.00
Wasatch	6.00	--	5.00	4.00	4.00	--	8.00	5.00	--	--	3.00	--
REGIONAL TOTALS	4.12	4.54	4.83	3.40	3.97	3.64	3.61	3.30	3.37	3.89	5.05	3.87
<u>Southern Region</u>												
Beaver	--	--	5.00	--	--	--	--	5.00	--	4.00	2.60	--
Garfield	4.00	--	--	6.00	--	6.00	4.75	5.00	--	--	3.40	--
Iron	--	--	3.00	--	--	--	2.00	3.50	4.25	--	--	--
Kane	3.33	6.33	--	--	--	--	4.00	--	--	--	--	--
Millard	2.00	--	4.50	--	--	7.00	5.67	6.33	--	--	3.64	--
Piute	--	--	--	--	2.00	--	--	--	--	4.67	3.50	--
Sevier	2.62	3.00	5.89	3.82	3.17	4.29	4.50	3.29	4.95	3.44	4.04	--
Washington	4.00	5.33	3.50	--	5.00	--	6.00	4.00	--	5.00	--	--
Wayne	--	--	4.00	--	5.50	6.00	--	--	--	--	--	--
REGIONAL TOTALS	3.06	4.55	5.31	4.00	3.50	4.90	4.65	4.04	4.82	4.15	3.70	4.30
<u>Northeastern Region</u>												
Daggett	5.00	5.00	5.67	--	4.88	3.67	4.00	4.00	7.20	4.45	4.91	--
Duchesne	4.71	6.00	4.22	7.00	4.60	4.22	5.30	3.00	5.00	3.60	3.88	--
Uintah	6.50	5.00	5.00	4.50	5.25	3.50	5.00	5.75	3.70	4.75	2.71	--
REGIONAL TOTALS	5.21	5.20	4.71	5.33	4.78	3.94	4.83	3.95	4.90	4.35	4.00	4.72
<u>Southeastern Region</u>												
Carbon	6.00	--	3.40	3.33	4.25	4.75	4.50	2.00	3.50	2.00	--	--
Emery	--	6.67	--	--	--	3.00	--	--	--	--	--	--
Grand	2.67	--	1.50	4.00	3.67	6.00	--	--	--	2.50	--	--
San Juan	6.17	--	4.83	3.50	3.40	4.00	6.00	5.00	4.00	3.00	--	--
REGIONAL TOTALS	5.50	6.67	3.77	3.57	3.88	4.57	5.40	3.50	3.67	2.60	--	4.31
STATE TOTALS	4.64	4.81	4.88	4.05	4.29	4.00	4.44	3.69	4.20	3.97	4.06	4.30

Table 8. Trend of blue grouse observed per 100 hours, 1972-82.

Region and County	Year											Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	35	0	273	46	132	--	39	800	58	230	--	--
Cache	133	409	271	124	75	62	41	7	44	74	--	--
Davis	125	--	80	10	52	84	188	140	92	7	--	--
Morgan	125	173	400	35	417	173	127	--	86	30	--	--
Rich	39	0	--	--	40	--	--	--	--	--	--	--
Summit	127	138	8	83	93	81	400	850	18	293	--	--
Weber	147	--	--	125	62	167	42	51	58	174	71	--
<b>REGIONAL TOTALS</b>	<b>111</b>	<b>266</b>	<b>274</b>	<b>80</b>	<b>94</b>	<b>87</b>	<b>65</b>	<b>30</b>	<b>57</b>	<b>121</b>	<b>20</b>	<b>119</b>
<u>Central Region</u>												
Juab	--	25	0	27	0	--	86	38	336	73	--	--
Salt Lake	--	20	27	14	98	112	111	70	450	36	57	--
Sanpete	92	39	0	0	27	31	65	33	--	--	281	--
Tooele	--	94	144	108	354	172	1,080	557	248	271	--	--
Utah	92	172	64	118	54	23	96	176	104	52	36	--
Wasatch	262	--	433	36	250	--	46	88	3	--	53	--
<b>REGIONAL TOTALS</b>	<b>98</b>	<b>95</b>	<b>57</b>	<b>29</b>	<b>91</b>	<b>56</b>	<b>113</b>	<b>109</b>	<b>122</b>	<b>55</b>	<b>127</b>	<b>83</b>
<u>Southern Region</u>												
Beaver	--	--	300	--	--	--	--	107	--	46	220	--
Garfield	10	0	25	56	16	53	86	61	--	--	--	--
Iron	--	--	167	--	--	0	150	333	275	--	--	--
Kane	--	76	--	0	--	0	250	--	--	--	--	--
Millard	83	0	122	--	--	133	250	2,300	--	--	248	--
Piute	--	--	--	0	75	0	--	--	--	557	225	--
Sevier	23	7	40	21	34	28	38	46	68	20	--	--
Washington	260	--	129	0	55	0	--	125	--	800	--	--
Wayne	--	8	--	--	375	2,000	0	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>37</b>	<b>18</b>	<b>47</b>	<b>21</b>	<b>40</b>	<b>35</b>	<b>56</b>	<b>61</b>	<b>74</b>	<b>41</b>	<b>--</b>	<b>43</b>
<u>Northeastern Region</u>												
Daggett	146	45	182	0	157	88	100	420	600	736	389	--
Duchesne	90	13	130	14	105	84	148	209	130	75	126	--
Uintah	87	19	78	27	86	20	19	44	256	308	54	--
<b>REGIONAL TOTALS</b>	<b>104</b>	<b>27</b>	<b>112</b>	<b>15</b>	<b>112</b>	<b>63</b>	<b>83</b>	<b>150</b>	<b>220</b>	<b>228</b>	<b>138</b>	<b>111</b>
<u>Southeastern Region</u>												
Carbon	258	0	44	35	77	44	46	19	35	17	--	--
Emery	--	77	0	0	--	40	--	33	--	--	--	--
Grand	103	19	25	33	68	62	6	--	--	--	--	--
San Juan	238	0	158	53	108	24	99	54	46	218	--	--
<b>REGIONAL TOTALS</b>	<b>216</b>	<b>36</b>	<b>56</b>	<b>39</b>	<b>81</b>	<b>38</b>	<b>46</b>	<b>29</b>	<b>38</b>	<b>128</b>	<b>--</b>	<b>71</b>
<b>STATE TOTALS</b>	<b>95</b>	<b>66</b>	<b>91</b>	<b>33</b>	<b>81</b>	<b>52</b>	<b>106</b>	<b>68</b>	<b>93</b>	<b>93</b>	<b>91</b>	<b>78</b>

Table 9. Summary of effort expended on forest grouse brood counts, 1982.

Region and County	Vehicle Miles Traveled	Hours Effort Expended			Total
		Vehicle	Horseback	Walking	
<u>Northern Region</u>					
Box Elder	25	4	0	0	4
Cache	100	8	27	0	35
Davis	118	7	0	3	10
Morgan	0	0	4	0	4
Rich	--	--	--	--	--
Summit	--	--	--	--	--
Weber	263	15	3	3	21
<b>REGIONAL TOTALS</b>	<b>506</b>	<b>34</b>	<b>34</b>	<b>6</b>	<b>74</b>
<u>Central Region</u>					
Juab	140	5	0	0	5
Salt Lake	273	10	0	13	23
Sanpete	449	24	23	10	57
Tooele	35	5	0	0	5
Utah	425	39	0	0	39
Wasatch	166	24	0	4	28
<b>REGIONAL TOTALS</b>	<b>1,488</b>	<b>107</b>	<b>23</b>	<b>27</b>	<b>157</b>
<u>Southern Region</u>					
Beaver	110	10	0	0	10
Garfield	--	--	--	--	--
Iron	--	--	--	--	--
Kane	--	--	--	--	--
Millard	105	23	0	0	23
Piute	80	4	0	0	4
Sevier	0	0	317	0	317
Washington	--	--	--	--	--
Wayne	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>295</b>	<b>37</b>	<b>317</b>	<b>0</b>	<b>354</b>
<u>Northeastern Region</u>					
Daggett	130	17	2	0	19
Duchesne	518	33	0	9	42
Uintah	94	7	26	17	50
<b>REGIONAL TOTALS</b>	<b>742</b>	<b>57</b>	<b>28</b>	<b>26</b>	<b>111</b>
<u>Southeastern Region</u>					
Carbon	--	--	--	--	--
Emery	--	--	--	--	--
Grand	--	--	--	--	--
San Juan	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>STATE TOTALS</b>	<b>3,031</b>	<b>235</b>	<b>402</b>	<b>59</b>	<b>696</b>



Table 10. Summary of forest grouse hunter success and distribution of harvest and hunting pressure by region and county, 1982.

Region and County	Sample Size*	Hunter-days Afield	Birds Bagged			Total	Birds per Hunter-day	% of Pressure	% of Harvest
			Ruffed	Blue	Unident.				
<b>Northern Region</b>									
Box Elder	48	1,532	337	674	31	1,042	0.68	5.33	4.79
Cache	159	5,057	1,088	2,268	567	3,923	0.78	17.58	18.02
Davis	40	1,195	275	352	32	659	0.55	4.16	3.03
Morgan	32	950	444	245	0	689	0.73	3.30	3.17
Rich	33	1,226	245	444	123	812	0.66	4.26	3.73
Summit	51	1,118	536	367	1	904	0.81	3.89	4.15
Weber	66	2,620	812	1,256	47	2,115	0.81	9.11	9.71
<b>REGIONAL TOTALS</b>	<b>429</b>	<b>13,701</b>	<b>3,739</b>	<b>5,609</b>	<b>798</b>	<b>10,146</b>	<b>0.74</b>	<b>47.63</b>	<b>46.59</b>
<b>Central Region</b>									
Juab	15	321	76	122	31	229	0.71	1.12	1.06
Salt Lake	28	643	137	413	1	551	0.86	2.24	2.53
Sanpete	42	1,425	429	475	92	996	0.70	4.95	4.57
Tooele	29	842	61+	705	138	904	1.07	2.93	4.15
Utah	115	3,387	980	1,609	31	2,620	0.77	11.71	12.03
Wasatch	53	1,501	398	367	62	827	0.55	5.22	3.80
<b>REGIONAL TOTALS</b>	<b>282</b>	<b>8,122</b>	<b>2,084</b>	<b>3,693</b>	<b>353</b>	<b>6,130</b>	<b>0.75</b>	<b>28.24</b>	<b>28.15</b>
<b>Southern Region</b>									
Beaver	5	91	45+	45	0	91	1.00	0.32	0.42
Garfield	3	91	0+	45	0	45	0.50	0.32	0.21
Iron	16	505	214+	153	0	367	0.73	1.76	1.69
Kane	7	291	0+	153	0	153	0.53	1.01	0.70
Millard	10	275	45+	168	0	214	0.78	0.96	0.99
Piute	12	674	45	352	78	475	0.70	2.34	2.18
Sevier	50	1,655	613	613	138	1,364	0.82	5.75	6.26
Washington	1	15	0+	0	0	0	0.00	0.05	0.00
Wayne	3	137	0+	45	31	76	0.56	0.48	0.35
<b>REGIONAL TOTALS</b>	<b>107</b>	<b>3,739</b>	<b>965</b>	<b>1,578</b>	<b>246</b>	<b>2,789</b>	<b>0.75</b>	<b>13.00</b>	<b>12.81</b>
<b>Northeastern Region</b>									
Daggett	14	505	30	107	445	582	1.15	1.76	2.67
Duchesne	25	934	321	337	47	705	0.75	3.25	3.24
Uintah	30	888	199	383	245	827	0.93	3.09	3.80
<b>REGIONAL TOTALS</b>	<b>69</b>	<b>2,329</b>	<b>551</b>	<b>827</b>	<b>737</b>	<b>2,115</b>	<b>0.91</b>	<b>8.10</b>	<b>9.71</b>
<b>Southeastern Region</b>									
Carbon	6	306	91	61	0	153	0.50	1.07	0.70
Emery	9	214	61	107	0	168	0.79	0.75	0.77
Grand	5	122	15+	45	0	61	0.50	0.43	0.28
San Juan	9	183	0+	183	0	183	1.00	0.64	0.84
<b>REGIONAL TOTALS</b>	<b>29</b>	<b>827</b>	<b>168</b>	<b>398</b>	<b>1</b>	<b>567</b>	<b>0.69</b>	<b>2.88</b>	<b>2.60</b>
Unknown Counties	3	45	0	30	0	30	0.67	0.16	0.14
Mixed Counties	0	0	0	0	0	0	0.00	0.00	0.00
<b>STATE TOTALS</b>	<b>919</b>	<b>28,767</b>	<b>7,509</b>	<b>12,138</b>	<b>2,131</b>	<b>21,778</b>	<b>0.76</b>	<b>100</b>	<b>100</b>

\*Total hunter trips from questionnaire returns.

+Outside of known distributional limits; probable incorrect identification of blue grouse.

Table 11. Summary of forest grouse bagged per hunter-day by region and county, 1977-82.

Region and County	Year					
	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>						
Box Elder	1.23	0.98	0.79	1.20	1.35	0.68
Cache	0.92	1.40	1.24	0.96	0.87	0.78
Davis	0.90	1.34	0.94	0.74	0.66	0.55
Morgan	1.24	1.47	1.08	0.50	0.59	0.73
Rich	0.58	1.10	0.90	0.73	0.17	0.66
Summit	0.87	1.38	0.93	0.72	0.73	0.81
Weber	1.01	1.06	1.07	0.90	0.75	0.81
<b>REGIONAL TOTALS</b>	<b>0.94</b>	<b>1.27</b>	<b>1.08</b>	<b>0.86</b>	<b>0.77</b>	<b>0.74</b>
<u>Central Region</u>						
Juab	0.97	0.63	1.63	1.21	1.07	0.71
Salt Lake	0.64	1.59	1.17	1.12	0.32	0.86
Sanpete	0.73	0.82	0.96	0.73	0.86	0.70
Tooele	0.86	0.89	0.98	1.03	0.89	1.07
Utah	0.85	1.13	1.11	1.09	0.85	0.77
Wasatch	0.75	0.93	0.93	0.65	0.81	0.55
<b>REGIONAL TOTALS</b>	<b>0.81</b>	<b>1.04</b>	<b>1.05</b>	<b>0.95</b>	<b>0.82</b>	<b>0.75</b>
<u>Southern Region</u>						
Beaver	0.40	1.65	1.64	0.89	0.61	1.00
Garfield	0.25	0.57	0.64	0.91	1.08	0.50
Iron	0.91	0.98	0.78	0.73	0.94	0.73
Kane	0.50	0.57	0.86	1.00	0.79	0.53
Millard	1.35	1.21	1.44	1.56	1.04	0.78
Piute	0.65	1.93	0.74	1.10	1.40	0.70
Sevier	1.18	1.02	1.14	1.26	0.61	0.82
Washington	1.50	1.22	0.45	0.00	0.50	0.00
Wayne	1.00	1.00	0.95	0.67	0.40	0.56
<b>REGIONAL TOTALS</b>	<b>1.01</b>	<b>1.06</b>	<b>1.11</b>	<b>1.16</b>	<b>0.80</b>	<b>0.75</b>
<u>Northeastern Region</u>						
Daggett	0.41	0.79	0.69	0.55	0.92	1.15
Duchesne	1.03	0.96	0.99	0.71	1.25	0.75
Uintah	0.75	0.82	0.93	0.87	1.20	0.93
<b>REGIONAL TOTALS</b>	<b>0.70</b>	<b>0.87</b>	<b>0.90</b>	<b>0.76</b>	<b>1.07</b>	<b>0.91</b>
<u>Southeastern Region</u>						
Carbon	0.64	1.32	0.73	0.88	0.72	0.50
Emery	0.79	0.89	0.52	0.83	0.93	0.79
Grand	0.67	0.67	0.57	0.00	1.53	0.50
San Juan	0.40	0.43	0.40	1.00	1.00	1.00
<b>REGIONAL TOTALS</b>	<b>0.67</b>	<b>0.96</b>	<b>0.61</b>	<b>0.87</b>	<b>0.98</b>	<b>0.69</b>
Unknown Counties	1.74	0.74	1.00	0.00	1.67	0.67
Mixed Counties	0.00	0.00	0.00	0.00	0.00	0.00
<b>STATE TOTALS</b>	<b>0.87</b>	<b>1.12</b>	<b>1.04</b>	<b>0.91</b>	<b>0.81</b>	<b>0.76</b>

Table 12. Percentage distribution of forest grouse harvest by region and county, 1977-82.

Region and County	Year					
	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>						
Box Elder	4.22	2.99	1.63	4.73	4.41	4.79
Cache	20.01	20.93	21.94	18.23	19.25	18.02
Davis	3.51	3.56	4.04	3.47	2.51	3.03
Morgan	3.48	3.58	2.87	2.01	5.10	3.17
Rich	2.13	3.66	3.40	3.13	0.53	3.73
Summit	7.10	6.90	5.76	5.59	6.47	4.15
Weber	10.57	7.93	10.17	5.67	6.54	9.71
<b>REGIONAL TOTALS</b>	<b>51.03</b>	<b>49.55</b>	<b>49.81</b>	<b>42.83</b>	<b>44.82</b>	<b>46.59</b>
<u>Central Region</u>						
Juab	1.21	0.61	1.39	1.71	2.21	1.06
Salt Lake	1.91	2.97	3.21	3.43	0.91	2.53
Sanpete	3.58	4.17	6.27	3.80	3.35	4.57
Tooele	2.48	2.38	1.43	2.42	2.51	4.15
Utah	13.63	16.76	12.31	16.70	17.43	12.03
Wasatch	4.44	4.66	5.50	4.81	4.11	3.80
<b>REGIONAL TOTALS</b>	<b>27.25</b>	<b>31.56</b>	<b>30.11</b>	<b>32.87</b>	<b>30.52</b>	<b>28.15</b>
<u>Southern Region</u>						
Beaver	0.14	0.69	0.44	0.63	1.75	0.42
Garfield	0.07	0.42	0.34	0.37	1.07	0.21
Iron	2.06	1.06	0.51	1.12	1.29	1.69
Kane	0.07	0.20	0.15	0.37	0.84	0.70
Millard	0.82	0.71	3.33	2.91	2.05	0.99
Piute	0.53	0.71	0.56	0.82	1.60	2.18
Sevier	5.71	3.58	6.49	7.98	2.89	6.26
Washington	0.11	0.54	0.12	0.00	0.08	0.00
Wayne	0.11	0.10	0.44	0.15	0.15	0.35
<b>REGIONAL TOTALS</b>	<b>9.62</b>	<b>8.00</b>	<b>12.38</b>	<b>14.35</b>	<b>11.72</b>	<b>12.81</b>
<u>Northeastern Region</u>						
Daggett	1.17	0.76	0.75	0.86	2.74	2.67
Duchesne	2.13	2.36	2.36	2.16	1.14	3.24
Uintah	1.67	2.18	1.51	3.58	2.28	3.80
<b>REGIONAL TOTALS</b>	<b>4.97</b>	<b>5.30</b>	<b>4.62</b>	<b>6.60</b>	<b>6.16</b>	<b>9.71</b>
<u>Southeastern Region</u>						
Carbon	2.41	2.36	1.53	1.68	1.60	0.70
Emery	1.10	1.67	0.85	1.49	1.98	0.77
Grand	0.14	0.15	0.51	0.00	1.75	0.28
San Juan	0.07	0.37	0.10	0.19	1.07	0.84
<b>REGIONAL TOTALS</b>	<b>3.73</b>	<b>4.54</b>	<b>2.99</b>	<b>3.35</b>	<b>6.39</b>	<b>2.60</b>
Unknown Counties	3.41	1.06	0.10	0.00	0.38	0.14
Mixed Counties	0.00	0.00	0.00	0.00	0.00	0.00
<b>STATE TOTALS</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 13. Percentage distribution of forest grouse hunting pressure by region and county, 1977-82.

Region and County	Year					
	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>						
Box Elder	3.00	3.44	2.16	3.60	2.66	5.33
Cache	18.99	16.79	18.41	17.24	17.95	17.58
Davis	3.40	2.97	4.46	4.28	3.09	4.16
Morgan	2.44	2.72	2.76	3.67	7.05	3.30
Rich	3.18	3.71	3.96	3.91	2.54	4.26
Summit	7.08	5.61	6.44	7.04	7.18	3.89
Weber	9.09	8.42	9.91	5.71	7.12	9.11
REGIONAL TOTALS	47.19	43.67	48.10	45.46	47.59	47.63
<u>Central Region</u>						
Juab	1.08	1.10	0.89	1.29	1.67	1.12
Salt Lake	2.60	2.09	2.87	2.79	2.29	2.24
Sanpete	4.27	5.70	6.82	4.76	3.16	4.95
Tooele	2.50	3.00	1.52	2.14	2.29	2.93
Utah	13.91	16.62	11.51	13.97	16.71	11.77
Wasatch	5.13	5.61	6.19	6.73	4.15	5.22
REGIONAL TOTALS	29.50	34.12	29.79	13.69	30.26	28.24
<u>Southern Region</u>						
Beaver	0.31	0.47	0.28	0.65	2.35	0.32
Garfield	0.25	0.83	0.56	0.37	0.80	0.32
Iron	1.98	1.21	0.68	1.39	1.11	1.76
Kane	0.12	0.39	0.18	0.34	0.87	1.01
Millard	0.53	0.66	2.41	1.70	1.61	0.96
Piute	0.71	0.41	0.79	0.68	0.93	2.34
Sevier	4.21	3.94	5.96	5.78	3.84	5.75
Washington	0.06	0.50	0.28	0.20	0.12	0.05
Wayne	0.09	0.11	0.48	0.20	0.31	0.48
REGIONAL TOTALS	8.26	8.50	11.61	11.32	11.94	13.00
<u>Northeastern Region</u>						
Daggett	2.47	1.07	1.14	1.43	2.41	1.76
Duchesne	1.79	2.75	2.48	2.79	0.74	3.25
Uintah	1.95	2.97	1.70	3.74	1.55	3.09
REGIONAL TOTALS	6.22	6.80	5.32	7.96	4.70	8.10
<u>Southeastern Region</u>						
Carbon	3.28	2.01	2.18	1.73	1.79	1.07
Emery	1.21	2.09	1.70	1.63	1.73	0.75
Grand	0.19	0.25	0.94	0.00	0.93	0.43
San Juan	0.15	0.96	0.25	0.17	0.87	0.64
REGIONAL TOTALS	4.82	5.31	5.07	3.54	5.32	2.88
Unknown Counties	4.02	1.60	0.10	0.03	0.19	0.16
Mixed Counties	0.00	0.00	0.00	0.00	0.00	0.00
STATE TOTALS	100	100	100	100	100	100

Table 14. Statewide summary of forest grouse harvest statistics, 1963-82.

Year	Total Hunters		Total Harvest		Hunter-days Afield		Grouse/Hunter-day		Grouse Per Hunter				
	Hunters	Ruffed	Blue	Percent	Unknown	Percent	Total	Ruffed	Blue	Total	Ruffed	Blue	Total
1963	7,425	5,470	7,372	(54.2)	766	(5.6)	13,608	0.44	0.66	1.11	0.74	0.99	1.83
1964	6,487	5,354	6,685	(57.7)	652	(5.1)	12,691	0.51	0.63	1.20	0.82	1.03	1.96
1965	6,005	3,225	4,924	(56.8)	520	(6.0)	8,669	0.31	0.47	0.83	0.54	0.82	1.44
1966	6,683	6,966	4,659	(37.8)	696	(5.7)	12,321	0.56	0.38	0.99	1.04	0.68	1.84
1967	9,420	8,476	6,773	(38.6)	2,277	(13.0)	17,526	0.48	0.38	0.99	0.87	0.69	1.86
1968	13,061	17,048	12,604	(38.9)	2,762	(8.5)	32,414	0.64	0.47	1.22	1.30	0.96	2.48
1969	12,523	9,490	10,419	(48.5)	1,589	(7.4)	21,498	0.38	0.42	0.87	0.76	0.83	1.72
1970	12,775	15,590	13,515	(42.4)	2,793	(8.7)	31,898	0.59	0.51	1.20	1.22	1.06	2.50
1971	13,363	15,759	13,749	(43.1)	2,393	(7.5)	31,901	0.54	0.47	1.10	1.18	1.03	2.39
1972	16,640	20,648	19,221	(45.2)	2,649	(6.2)	42,518	0.53	0.49	1.09	1.24	1.16	2.56
1973	17,588	7,153	36,846	(81.4)	1,233	(2.7)	45,232	0.16	0.82	1.01	0.41	2.09	2.57
1974	21,920	24,561	32,236	(51.6)	5,642	(9.0)	62,439	0.44	0.58	1.13	1.12	1.47	2.85
1975	20,102	15,750	23,138	(54.5)	3,573	(8.4)	42,461	0.31	0.45	0.84	0.78	1.15	2.11
1976	21,186	23,551	35,660	(56.2)	4,225	(6.7)	63,436	0.42	0.63	1.12	1.11	1.68	2.99
1977	19,188	15,766	23,455	(55.2)	3,256	(7.7)	42,477	0.37	0.48	0.87	0.82	1.22	2.21
1978	25,318	30,340	46,651	(57.2)	4,567	(5.6)	81,558	0.42	0.64	1.12	1.20	1.84	3.22
1979	21,993	23,156	33,070	(55.3)	3,625	(6.0)	59,851	0.40	0.58	1.04	1.05	1.50	2.61
1980	19,511	15,457	27,588	(60.6)	2,477	(5.4)	45,522	0.31	0.55	0.91	0.79	1.41	2.33
1981	14,329	8,557	17,852	(64.0)	1,485	(5.3)	27,894	0.25	0.52	0.81	0.60	1.25	1.95
1982	12,384	7,509	12,138	(55.7)	2,131	(9.8)	21,778	0.26	0.42	0.76	0.60	0.98	1.76
<b>TOTALS</b> <b>(1963-82)</b>	<b>301,901</b>	<b>279,826</b>	<b>388,555</b>	<b>(54.1)</b>	<b>49,311</b>	<b>(6.9)</b>	<b>717,692</b>	<b>0.40</b>	<b>0.55</b>	<b>1.01</b>	<b>0.93</b>	<b>1.29</b>	<b>2.38</b>
<b>AVERAGES</b> <b>(1963-81)</b>	<b>15,237</b>	<b>14,332</b>	<b>19,811</b>	<b>(54.1)</b>	<b>2,483</b>	<b>(6.8)</b>	<b>36,627</b>	<b>0.40</b>	<b>0.55</b>	<b>1.02</b>	<b>0.94</b>	<b>1.30</b>	<b>2.40</b>

Table 15. Forest grouse field bag check summary, 1982.

Region and County	ALL HUNTS				COMPLETE HUNTS			
	Total Parties	Total Hunters	Total Hours	Total Birds/100 Hr	Total Complete Hunts	Total Hunters	Total Hours	Total Birds/100 Hr
<u>Northern Region</u>								
Box Elder	8	16	43	5	5	10	33	4
Cache	81	187	784	60	81	187	784	60
Davis	25	58	203	17	16	34	117	15
Morgan	1	2	6	2	1	2	6	2
Rich	11	21	97	2	11	21	97	2
Summit	--	--	--	--	--	--	--	--
Weber	23	55	231	2	23	55	231	2
<b>REGIONAL TOTALS</b>	<b>149</b>	<b>339</b>	<b>1,364</b>	<b>88</b>	<b>137</b>	<b>309</b>	<b>1,268</b>	<b>85</b>
<u>Central Region</u>								
Juab	3	8	22	13	3	8	22	13
Salt Lake	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--
Utah	82	182	905	122	74	169	843	119
Wasatch	*10	18	37	5	7	16	28	5
<b>REGIONAL TOTALS</b>	<b>100</b>	<b>208</b>	<b>964</b>	<b>104</b>	<b>84</b>	<b>193</b>	<b>893</b>	<b>137</b>
<u>Southern Region</u>								
Beaver	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--
Millard	8	12	37	1	3	4	14	1
Piute	--	--	--	--	--	--	--	--
Sevier	7	15	44	23	2	7	24	21
Washington	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>15</b>	<b>27</b>	<b>81</b>	<b>24</b>	<b>5</b>	<b>11</b>	<b>38</b>	<b>22</b>
<u>Northeastern Region</u>								
Daggett	12	27	128	32	3	4	9	5
Duchesne	6	9	31	1	2	2	5	1
Uintah	29	86	306	34	19	51	165	31
<b>REGIONAL TOTALS</b>	<b>47</b>	<b>122</b>	<b>465</b>	<b>67</b>	<b>24</b>	<b>57</b>	<b>179</b>	<b>37</b>
<u>Southeastern Region</u>								
Carbon	--	--	--	--	--	--	--	--
Emery	1	3	6	0	1	3	6	0
Grand	2	3	4	0	1	1	3	0
San Juan	0	0	0	0	0	0	0	0
<b>REGIONAL TOTALS</b>	<b>3</b>	<b>6</b>	<b>10</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>9</b>	<b>0</b>
<b>STATE TOTALS</b>	<b>314</b>	<b>702</b>	<b>2,884</b>	<b>283</b>	<b>252</b>	<b>574</b>	<b>2,387</b>	<b>281</b>
								<b>12</b>
								<b>0.49</b>

\*Includes data from Southeastern Region.

Table 16. Forest grouse hunter success trend determined by field bag checks, 1977-82.

Region and County	1977		1978		1979		1980		1981		1982	
	Birds/ 100 Hr Hunter	Birds/ Hunter	Birds/ 100 Hr Hunter	Birds/ Hunter	Birds/ 100 Hr Hunter	Birds/ Hunter	Birds/ 100 Hr Hunter	Birds/ Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ Hunter
<u>Northern Region</u>												
Box Elder	0	0.00	41	2.33	29	2.00	--	--	4	0.25	12	0.40
Cache	7	0.30	31	0.59	16	0.66	6	0.27	11	0.52	8	0.32
Davis	0	0.00	--	0.00	43	1.22	42	1.00	12	0.33	13	0.44
Morgan	--	--	--	--	--	--	--	--	--	--	33	1.00
Rich	4	0.16	15	0.62	10	0.32	2	0.07	8	0.30	2	0.10
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	8	0.23	20	0.79	8	0.36	6	0.24	7	0.27	1	0.04
<b>REGIONAL TOTALS</b>	<b>6</b>	<b>0.27</b>	<b>26</b>	<b>0.63</b>	<b>14</b>	<b>0.58</b>	<b>6</b>	<b>0.25</b>	<b>10</b>	<b>0.43</b>	<b>7</b>	<b>0.28</b>
<u>Central Region</u>												
Juab	3	0.10	33	0.80	--	--	81	1.86	--	--	59	1.63
Salt Lake	13	0.33	--	--	0	0.00	--	--	--	--	--	--
Sanpete	--	--	--	--	28	0.53	20	1.25	50	1.00	--	--
Tooele	--	--	22	0.40	--	--	--	--	--	--	--	--
Utah	8	0.25	17	0.65	17	0.64	11	0.51	12	0.55	14	0.70
Wasatch	--	--	7	0.00	100	1.00	--	--	--	--	63	0.63
<b>REGIONAL TOTALS</b>	<b>8</b>	<b>0.24</b>	<b>17</b>	<b>0.65</b>	<b>89</b>	<b>0.63</b>	<b>12</b>	<b>0.56</b>	<b>12</b>	<b>0.55</b>	<b>16</b>	<b>0.74</b>
<u>Southern Region</u>												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	78	1.00	88	1.60	22	0.31	--	--	--	--	--	--
Iron	--	--	35	1.66	--	--	--	--	--	--	--	--
Kane	36	0.71	16	0.33	0	0.00	--	--	16	0.40	--	--
Millard	13	0.72	27	1.04	97	2.43	--	--	--	--	7	0.25
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	17	1.00	--	--	31	1.04	--	--	9	0.64	88	3.00
Washington	--	--	--	--	150	3.00	--	--	--	--	--	--
Wayne	--	--	--	--	17	0.50	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>20</b>	<b>0.81</b>	<b>37</b>	<b>1.22</b>	<b>39</b>	<b>1.05</b>	<b>--</b>	<b>--</b>	<b>10</b>	<b>0.56</b>	<b>58</b>	<b>2.00</b>
<u>Northeastern Region</u>												
Daggett	11	0.33	57	0.80	38	1.31	54	1.60	--	--	56	1.25
Duchesne	10	0.39	20	0.50	30	0.73	0	0.00	17	0.50	20	0.50
Uintah	8	0.27	14	0.29	70	0.97	--	--	34	1.69	19	0.61
<b>REGIONAL TOTALS</b>	<b>9</b>	<b>0.29</b>	<b>19</b>	<b>0.46</b>	<b>44</b>	<b>1.12</b>	<b>39</b>	<b>1.26</b>	<b>32</b>	<b>1.49</b>	<b>21</b>	<b>0.65</b>
<u>Southeastern Region</u>												
Carbon	100	1.00	--	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	0	0.00	--	--	100	1.00	--	--
San Juan	--	--	--	--	0	0.00	--	--	50	1.00	--	--
<b>REGIONAL TOTALS</b>	<b>100</b>	<b>1.00</b>	<b>--</b>	<b>--</b>	<b>0</b>	<b>0.00</b>	<b>--</b>	<b>--</b>	<b>83</b>	<b>1.00</b>	<b>--</b>	<b>--</b>
<b>STATE TOTALS</b>	<b>7</b>	<b>0.28</b>	<b>22</b>	<b>0.64</b>	<b>17</b>	<b>0.64</b>	<b>8</b>	<b>0.35</b>	<b>11</b>	<b>0.51</b>	<b>12</b>	<b>0.49</b>

Table 17. Sex and age composition of harvested blue grouse, 1982.

Region and County	Sample Size	Adults			Young			Young/ 100 Adults	Young/ 100 Hens
		M	F	Total	M	F	Total <sup>1</sup>		
<u>Northern Region</u>									
Box Elder	--	--	--	--	--	--	--	--	--
Cache <sup>2</sup>	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--
Rich <sup>2</sup>	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--
Weber <sup>2</sup>	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--
<u>Central Region</u>									
Juab	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--
Utah	95	19	18	37	26	32	58	157	322
Wasatch	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	95	19	18	37	26	32	58	157	322
<u>Southern Region</u>									
Beaver	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--
<u>Northeastern Region</u>									
Daggett	35	3	2	5	13	17	30	600	1,500
Duchesne	--	--	--	--	--	--	--	--	--
Uintah	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	35	3	2	5	13	17	30	600	1,500
<u>Southeastern Region</u>									
Carbon	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--
STATE TOTALS	130	22	20	42	39	49	88	210	440

<sup>1</sup>Includes unclassified juveniles.

<sup>2</sup>Data combined apply to one population of blue grouse.



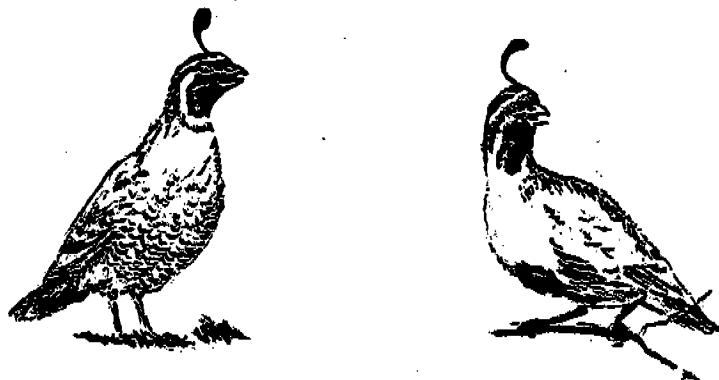
# QUAIL

## SUMMARY

The 1982 breeding populations of California and Gambel's quail were slightly less than 1981 and average.

Production of both California and Gambel's quail decreased from 1981 to well below average. Quail observation trends were also below average in most areas of the state.

Harvest statistics, when compared to 1981, showed a decrease in total hunters and total harvest. Hunter success (birds per hunter-day) remained below average statewide. A decrease in hunter days afield and total harvest of Gambel's quail was reported in Washington County.



### Brood Counts

Results of the annual random brood counts for 1982 are shown in Table 1 of this section. Long-term trends of young-adult ratios, mean brood size and quail observed per 100 hours are shown in Tables 2-4. Survey results for 1982 compared to 1981 and the previous 10-year average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Total quail observed	416	-42	-45
Young per 100 adults	134	-57	-41
Mean brood size	6.05	-25	-13
Quail observed per 100 hours	408	-43	-33
Total hours effort	102	+2	-20

Harvest statistics for 1981 indicated a static breeding population of quail statewide; however, breeding populations of California quail decreased in the Northern and Central regions. Gambel's quail in Washington County also showed a slight increase in breeding population.

Gambel's quail call counts on the west slope of Beaver Dam Mountains were discontinued in 1980.

Brood counts indicated production of both California and Gambel's quail decreased significantly from 1981 and was well below average.

### Harvest

Results of the annual hunter questionnaire for 1982 are shown in Table 5. Long-term trends of quail bagged per hunter-day, percent of harvest and percent of pressure (hunter-days) by county are found in Tables 6-8, and total statewide harvest statistics in Table 9.

Comparison of the 1982 season to 1981 and the previous 23-year average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Quail hunters	4,368	-12	-37
Quail harvested	9,870	-27	-50
Hunter-days afield	10,575	-18	-38
Quail per hunter-day	0.93	-12	-18
Quail per hunter	2.26	-18	-20

Harvest for 1982 decreased 27 percent from 1981 and was still well below average.

Hunter success and total harvest for Washington County (Gambel's quail) decreased 40 percent and 63 percent, respectively from 1981. Hunter-days afield also decreased 38 percent. Only 21 percent of the statewide harvest of quail was taken in Washington County during 1981 compared to 41 percent in 1981 and nearly 44 percent in 1980.

Long-term quail harvest statistics are shown in Figure 1.

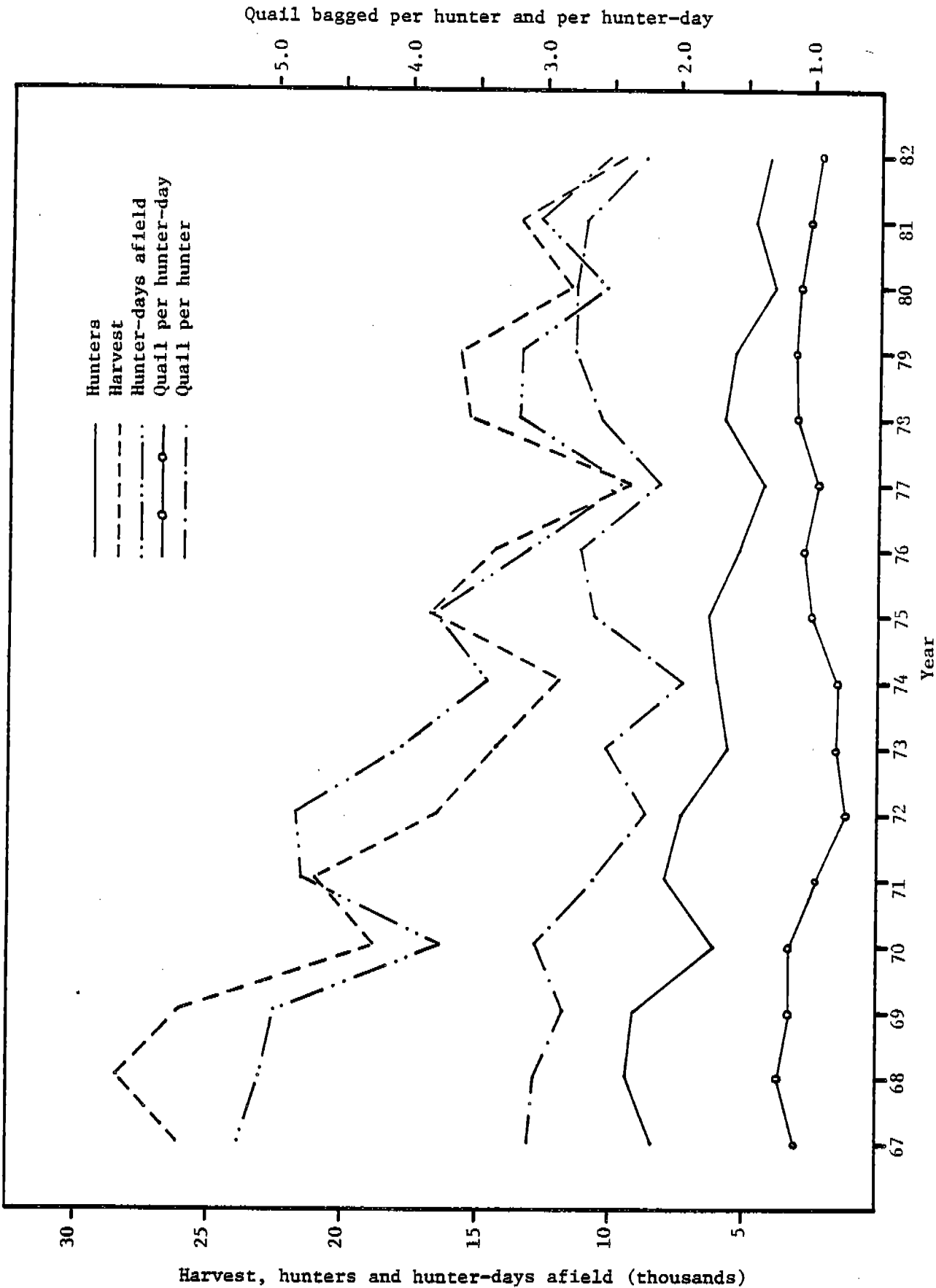


Figure 1. Statewide trend of quail harvest statistics.

Table 1. Quail summer inventory summary, 1982.

Region and County	Distinct Broods		Mean		Mixed Yng & Adults		Total Adults	Total Yng	Young/100 Ad	Veh. Miles	Hours of Effort		Birds/100 Hr
	# Ad	Yng	Brood	Ad	Yng	Ad					W/h	Veh.	
<u>Northern Region</u>													
Box Elder	--	--	--	--	--	--	--	--	--	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--	--
<u>REGIONAL TOTALS</u>													
	--	--	--	--	--	--	--	--	--	--	--	--	--
<u>Central Region</u>													
Juab	--	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	0	0	0	10	19	38	48	10	40	121	6	0	5
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--	--
Utah	0	0	0	0	0	0	0	0	--	30	3	0	0
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--	--
<u>REGIONAL TOTALS</u>													
	0	0	0	10	19	38	48	10	40	151	9	0	5
<u>Southern Region</u>													
Beaver	--	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--	--
Millard	0	0	0	2	6	0	2	6	300	10	1	0	0
Piute	--	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	0	0	0	4	10	0	4	10	250	10	1	0	0
Washington	15	28	90	75	82	7	110	172	152	284	42	0	0
Wayne	--	--	--	--	--	--	--	--	--	--	--	--	--
<u>REGIONAL TOTALS</u>													
	15	28	90	81	98	7	116	188	162	304	44	0	0
<u>Northeastern Region</u>													
Daggett	--	--	--	--	--	--	--	--	--	--	--	--	--
Duchesne	0	0	0	5	3	0	5	3	600	328	25	0	5
Uintah	6	6	37	6.17	0	3	9	37	411	147	14	0	0
<u>REGIONAL TOTALS</u>													
	6	6	37	6.17	5	3	14	40	286	475	39	0	5
<u>Southeastern Region</u>													
Carbon	--	--	--	--	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--	--
<u>REGIONAL TOTALS</u>													
	--	--	--	--	--	--	--	--	--	--	--	--	--
<u>STATE TOTALS</u>													
	21	34	127	6.05	96	120	48	238	134	930	92	0	10
													102
													408

Table 2. Trend of quail young per 100 adults, 1972-82.

Region and County	Year											Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	--	250	--	--	--	--	--	--	--	440	--	--
Cache	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	196	94	35	--	--
Morgan	575	400	640	--	300	--	--	500	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	111	50	--	217	0	133	--	233	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>254</b>	<b>230</b>	<b>640</b>	<b>217</b>	<b>180</b>	<b>133</b>	<b>--</b>	<b>209</b>	<b>94</b>	<b>128</b>	<b>--</b>	<b>232</b>
<u>Central Region</u>												
Juab	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	114	222	175	154	97	86	77	256	400	67	40	--
Sanpete	500	174	175	300	580	230	300	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--
Utah	275	241	250	229	64	80	44	240	714	100	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>143</b>	<b>222</b>	<b>200</b>	<b>188</b>	<b>108</b>	<b>95</b>	<b>127</b>	<b>245</b>	<b>656</b>	<b>72</b>	<b>40</b>	<b>203</b>
<u>Southern Region</u>												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
*Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	117	0	113	50	146	98	47	204	156	540	300	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	700	--	--	250	--
Washington	57	--	273	580	199	149	555	301	93	226	152	--
Wayne	--	--	86	--	244	238	1,250	--	--	550	--	--
<b>REGIONAL TOTALS</b>	<b>75</b>	<b>0</b>	<b>171</b>	<b>429</b>	<b>190</b>	<b>146</b>	<b>317</b>	<b>283</b>	<b>114</b>	<b>439</b>	<b>162</b>	<b>216</b>
<u>Northeastern Region</u>												
Daggett	--	0	525	450	600	0	--	--	--	--	--	--
Duchesne	--	--	333	314	0	129	190	340	114	583	600	--
Uintah	165	700	438	475	323	383	800	653	338	305	411	--
<b>REGIONAL TOTALS</b>	<b>165</b>	<b>350</b>	<b>431</b>	<b>411</b>	<b>265</b>	<b>122</b>	<b>336</b>	<b>517</b>	<b>282</b>	<b>367</b>	<b>286</b>	<b>325</b>
<u>Southeastern Region</u>												
Carbon	--	533	--	--	450	--	650	--	--	--	--	--
Emery	438	--	109	0	--	0	19	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	300	--	--
San Juan	--	--	--	--	--	41	--	40	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>438</b>	<b>533</b>	<b>109</b>	<b>0</b>	<b>450</b>	<b>38</b>	<b>89</b>	<b>40</b>	<b>--</b>	<b>300</b>	<b>--</b>	<b>222</b>
<b>STATE TOTALS</b>	<b>171</b>	<b>216</b>	<b>248</b>	<b>360</b>	<b>163</b>	<b>112</b>	<b>272</b>	<b>285</b>	<b>155</b>	<b>311</b>	<b>134</b>	<b>229</b>

\*Washington, Kane and Wayne counties, Gambel's quail; all others, California quail.

Table 3. Trend of quail mean brood size from 1972-82.

Region and County	Year											Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	--	5.00	--	--	--	--	--	--	--	11.00	--	--
Cache	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	6.75	5.00	1.33	--	--
Morgan	11.50	8.00	9.00	--	--	--	--	5.00	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	10.00	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	11.00	7.00	9.00	--	--	--	--	6.40	5.00	6.85	--	7.54
<u>Central Region</u>												
Juab	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	8.00	7.50	5.00	6.80	7.00	6.40	2.00	4.60	4.00	--	--	--
Sanpete	5.40	5.60	4.00	6.00	5.80	4.33	4.75	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--
Utah	7.17	7.36	6.67	7.00	2.50	4.00	4.00	4.00	5.00	3.00	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	7.18	6.95	5.29	6.56	5.64	5.78	3.44	4.43	4.50	3.00	--	5.28
<u>Southern Region</u>												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
*Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	7.00	--	7.00	8.00	10.20	6.67	6.25	11.25	5.63	8.54	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	7.00	--	--	--	--
*Washington	2.67	--	5.17	10.84	6.08	7.83	11.80	8.51	5.22	6.42	6.00	--
*Wayne	--	--	9.00	--	9.00	13.00	--	--	--	5.50	--	--
REGIONAL TOTALS	3.75	--	6.30	10.63	7.40	8.07	10.21	8.86	5.45	7.97	6.00	7.63
<u>Northeastern Region</u>												
Daggett	--	--	5.25	4.50	6.00	--	--	--	--	--	--	--
Duchesne	--	--	5.00	--	--	3.43	6.86	6.00	4.00	9.00	--	--
Uintah	5.92	7.00	11.00	10.00	3.55	7.67	8.00	6.34	3.55	12.80	6.17	--
REGIONAL TOTALS	5.92	7.00	6.73	6.86	3.67	4.70	7.53	6.17	3.59	11.71	6.17	6.39
<u>Southeastern Region</u>												
Carbon	--	8.00	--	--	9.00	--	--	--	--	--	--	--
Emery	9.86	--	5.00	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	4.50	--	--
San Juan	--	--	--	--	--	4.50	--	--	--	--	--	--
REGIONAL TOTALS	9.86	8.00	5.00	--	9.00	4.50	--	--	--	4.50	--	6.81
STATE TOTALS	7.21	7.04	6.20	9.16	5.58	6.25	7.55	8.08	4.52	8.09	6.05	6.97

\*Washington, Kane and Wayne counties, Gambel's quail; all others, California quail.

Table 4. Trend of quail observed per 100 hours, 1972-82.

Region and County	Year											Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	--	175	--	--	--	--	--	--	--	1,800	--	--
Cache	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	956	525	--	--	--	--
Morgan	1,350	--	925	--	1,200	--	600	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	271	100	--	238	22	350	--	1,000	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>511</b>	<b>330</b>	<b>925</b>	<b>238</b>	<b>140</b>	<b>350</b>	<b>927</b>	<b>729</b>	<b>891</b>	<b>--</b>	<b>--</b>	<b>560</b>
<u>Central Region</u>												
Juab	--	--	--	--	0	--	--	--	--	--	--	--
Salt Lake	2,706	414	550	592	2,838	2,092	575	1,067	167	63	527	--
Sanpete	771	525	138	480	262	236	400	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--
Utah	1,071	1,194	400	383	512	90	217	1,700	900	75	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>1,873</b>	<b>808</b>	<b>267</b>	<b>513</b>	<b>1,041</b>	<b>805</b>	<b>378</b>	<b>1,429</b>	<b>296</b>	<b>258</b>	<b>414</b>	<b>767</b>
<u>Southern Region</u>												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
*Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	118	125	1,067	1,600	2,867	1,088	867	1,340	1,536	3,911	800	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	50	800	--	--	1,400	--
*Washington	122	--	194	1,143	632	596	750	2,741	675	275	771	--
*Wayne	--	--	300	14	517	645	333	--	--	650	--	--
<b>REGIONAL TOTALS</b>	<b>90</b>	<b>125</b>	<b>254</b>	<b>917</b>	<b>729</b>	<b>702</b>	<b>667</b>	<b>1,951</b>	<b>867</b>	<b>1,053</b>	<b>691</b>	<b>736</b>
<u>Northeastern Region</u>												
Daggett	--	18	208	157	41	--	--	--	--	--	--	--
Duchesne	--	0	325	153	43	240	310	209	79	205	27	--
Uintah	1,005	533	1,950	460	715	483	563	890	613	708	328	--
<b>REGIONAL TOTALS</b>	<b>303</b>	<b>47</b>	<b>739</b>	<b>226</b>	<b>241</b>	<b>350</b>	<b>398</b>	<b>443</b>	<b>314</b>	<b>406</b>	<b>123</b>	<b>347</b>
<u>Southeastern Region</u>												
Carbon	--	--	0	--	220	--	1,500	--	--	--	--	--
Emery	1,950	0	343	17	--	67	950	--	--	--	--	--
Grand	--	--	0	--	--	--	--	--	--	400	--	--
San Juan	--	--	--	--	0	238	0	127	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>1,950</b>	<b>112</b>	<b>343</b>	<b>17</b>	<b>110</b>	<b>206</b>	<b>425</b>	<b>127</b>	<b>--</b>	<b>400</b>	<b>--</b>	<b>410</b>
<b>STATE TOTALS</b>	<b>664</b>	<b>336</b>	<b>364</b>	<b>549</b>	<b>571</b>	<b>588</b>	<b>530</b>	<b>1,193</b>	<b>541</b>	<b>720</b>	<b>408</b>	<b>606</b>

\*Washington, Kane and Wayne counties, Gambel's quail; all others, California quail.

Table 5. Summary of quail hunter success and distribution of harvest and hunting pressure by region and county, 1982.

REGION AND COUNTY	SAMPLE SIZE*	HUNTER-DAYS AFIELD	BIRDS BAGGED	BIRDS PER HUNTER-DAY	% OF PRESSURE	% OF HARVEST
<b>NORTHERN REGION</b>						
BOX ELDER	7	245	61	0.25	2.32	0.62
CACHE	3	91	153	1.67	0.87	1.55
DAVIS	18	551	291	0.53	5.22	2.95
MORGAN	1	30	0	0.00	0.29	0.00
RICH	2	45	30	0.67	0.43	0.31
SUMMIT	2	45	0	0.00	0.43	0.00
WEBER	19	842	934	1.11	7.97	9.47
<b>REGIONAL TOTALS</b>	<b>52</b>	<b>1,854</b>	<b>1,471</b>	<b>0.79</b>	<b>17.54</b>	<b>14.91</b>
<b>CENTRAL REGION</b>						
JUAB	4	76	122	1.60	0.72	1.24
SALT LAKE	20	490	551	1.13	4.64	5.59
SANPETE	0	0	0	0.00	0.00	0.00
TOOELE	2	61	0	0.00	0.58	0.00
UTAH	78	2,804	2,268	0.81	26.52	22.98
WASATCH	0	0	0	0.00	0.00	0.00
<b>REGIONAL TOTALS</b>	<b>104</b>	<b>3,433</b>	<b>2,942</b>	<b>0.86</b>	<b>32.46</b>	<b>29.81</b>
<b>SOUTHERN REGION</b>						
BEAVER	1	15	0	0.00	0.14	0.00
GARFIELD	0	0	0	0.00	0.00	0.00
IRON	1	15	0	0.00	0.14	0.00
KANE	0	0	0	0.00	0.00	0.00
MILLARD	13	459	904	1.97	4.35	9.16
PIUTE	0	0	0	0.00	0.00	0.00
SEVIER	3	107	15	0.14	1.01	0.16
WASHINGTON	48	1,731	2,053	1.19	16.38	20.81
WAYNE	2	45	45	1.00	0.43	0.47
<b>REGIONAL TOTALS</b>	<b>68</b>	<b>2,375</b>	<b>3,019</b>	<b>1.27</b>	<b>22.46</b>	<b>30.59</b>
<b>NORTHEASTERN REGION</b>						
DAGGETT	0	0	0	0.00	0.00	0.00
DUCHESNE	21	950	996	1.05	8.99	10.09
UINTAH	29	1,118	720	0.64	10.58	7.30
<b>REGIONAL TOTALS</b>	<b>50</b>	<b>2,069</b>	<b>1,716</b>	<b>0.83</b>	<b>19.57</b>	<b>17.39</b>
<b>SOUTHEASTERN REGION</b>						
CARBON	10	429	383	0.89	4.06	3.88
EMERY	6	321	214	0.67	3.04	2.17
GRAND	0	0	0	0.00	0.00	0.00
SAN JUAN	2	91	122	1.33	0.87	1.24
<b>REGIONAL TOTALS</b>	<b>18</b>	<b>842</b>	<b>720</b>	<b>0.85</b>	<b>7.97</b>	<b>7.30</b>
UNKNOWN	0	0	0	0.00	0.00	0.00
<b>STATE TOTALS</b>	<b>292</b>	<b>10,575</b>	<b>9,870</b>	<b>0.93</b>	<b>100.00</b>	<b>100.00</b>

\*Total hunter-trips from questionnaire returns.



Table 6. Summary of quail bagged per hunter-day by region and county, 1977-82.

Region and County	Year					
	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>						
Box Elder	1.15	0.88	0.43	0.60	0.07	0.25
Cache	1.00	0.24	--	0.50	0.00	1.67
Davis	0.80	1.16	0.96	0.80	0.97	0.53
Morgan	1.20	0.80	0.95	0.00	0.40	0.00
Rich	0.00	0.00	0.00	0.00	0.00	0.67
Summit	1.00	1.67	2.37	2.50	0.00	0.00
Weber	0.63	0.78	0.89	0.88	0.67	1.11
REGIONAL TOTALS	0.77	0.92	0.89	0.77	0.59	0.79
<u>Central Region</u>						
Juab	0.00	3.00	3.00	2.75	0.00	1.60
Salt Lake	1.11	0.90	1.48	1.54	0.88	1.13
Sanpete	1.50	0.00	0.90	0.00	0.00	0.00
Tooele	1.50	0.00	0.00	0.00	0.30	0.00
Utah	0.84	0.91	1.14	1.31	0.84	0.81
Wasatch	0.00	4.00	--	0.00	1.67	0.00
REGIONAL TOTALS	0.95	0.93	1.23	1.37	0.79	0.86
<u>Southern Region</u>						
Beaver	0.00	0.00	0.00	0.00	2.00	0.00
Garfield	0.00	0.00	2.00	0.00	0.00	0.00
Iron	0.00	0.00	0.00	0.00	0.00	0.00
Kane	0.00	0.00	0.00	0.00	1.16	0.00
Millard	0.13	0.44	--	1.08	1.16	1.97
Piute	4.00	0.00	0.00	0.00	2.00	0.00
Sevier	0.00	0.00	0.63	0.00	2.00	0.14
Washington	1.63	2.42	2.04	1.45	1.99	1.19
Wayne	0.86	0.86	2.62	0.00	1.20	1.00
REGIONAL TOTALS	1.43	1.82	1.96	1.43	1.77	1.27
<u>Northeastern Region</u>						
Daggett	0.00	1.00	0.00	0.00	0.00	0.00
Duchesne	1.09	1.37	0.77	0.74	1.07	1.05
Uintah	0.76	1.39	0.83	0.84	0.74	0.64
REGIONAL TOTALS	0.89	1.38	0.80	0.81	0.84	0.83
<u>Southeastern Region</u>						
Carbon	0.78	0.63	0.46	0.82	0.69	0.89
Emery	0.52	1.17	0.45	0.55	0.75	0.67
Grand	0.00	0.00	0.00	0.00	0.00	0.00
San Juan	2.00	0.00	0.00	0.00	3.00	1.33
REGIONAL TOTALS	0.73	0.77	0.42	0.60	0.76	0.85
Unknown counties	1.47	1.88	1.16	0.00	0.00	0.00
Mixed counties	0.00	0.00	0.00	0.00	0.00	0.00
STATE TOTALS	0.98	1.13	1.17	1.12	1.06	0.93

Table 7. Percentage distribution of quail harvest by region and county, 1977-82.

Region and County	Year					
	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>						
Box Elder	2.38	2.84	1.66	1.74	0.31	0.62
Cache	0.63	0.52	--	0.15	0.00	1.55
Davis	8.10	11.11	8.74	7.98	5.47	2.95
Morgan	0.95	1.55	1.93	0.00	0.31	0.00
Rich	0.00	0.00	0.00	0.00	0.00	0.31
Summit	0.32	0.65	1.75	0.73	0.00	0.00
Weber	6.67	4.65	4.69	6.10	2.50	9.47
<b>REGIONAL TOTALS</b>	<b>19.05</b>	<b>21.32</b>	<b>18.77</b>	<b>16.69</b>	<b>8.59</b>	<b>14.91</b>
<u>Central Region</u>						
Juab	0.00	0.78	0.55	1.60	0.00	1.24
Salt Lake	10.00	4.78	11.59	5.37	3.59	5.59
Sanpete	0.48	0.00	0.83	0.00	0.00	0.00
Tooele	0.48	0.00	0.00	0.00	0.47	0.00
Utah	13.81	23.51	21.34	17.85	20.16	22.98
Wasatch	0.00	1.03	--	0.00	0.78	0.00
<b>REGIONAL TOTALS</b>	<b>24.76</b>	<b>30.10</b>	<b>34.31</b>	<b>24.82</b>	<b>25.00</b>	<b>29.81</b>
<u>Southern Region</u>						
Beaver	0.00	0.00	0.00	0.00	0.31	0.00
Garfield	0.00	0.00	0.18	0.00	0.00	0.00
Iron	0.00	0.00	0.00	0.00	0.00	0.00
Kane	0.00	0.00	0.00	0.00	0.00	0.00
Millard	0.16	0.52	--	1.89	7.81	9.16
Piute	1.27	0.00	0.00	0.00	0.31	0.00
Sevier	0.00	0.00	0.46	0.00	0.16	0.16
Washington	26.67	18.48	25.48	43.83	40.78	20.81
Wayne	0.95	0.78	1.93	0.00	0.94	0.47
<b>REGIONAL TOTALS</b>	<b>29.05</b>	<b>19.77</b>	<b>28.06</b>	<b>45.72</b>	<b>50.31</b>	<b>30.59</b>
<u>Northeastern Region</u>						
Daggett	0.00	0.13	0.00	0.00	0.00	0.00
Duchesne	7.94	6.20	3.68	2.90	4.53	10.09
Uintah	8.10	18.35	5.34	6.82	7.03	7.30
<b>REGIONAL TOTALS</b>	<b>16.03</b>	<b>24.68</b>	<b>9.02</b>	<b>9.72</b>	<b>11.56</b>	<b>17.39</b>
<u>Southeastern Region</u>						
Carbon	4.60	1.29	1.20	1.31	3.13	3.88
Emery	1.90	0.90	0.46	1.74	0.94	2.17
Grand	0.00	0.00	0.00	0.00	0.00	0.00
San Juan	0.63	0.00	0.00	0.00	0.47	1.24
<b>REGIONAL TOTALS</b>	<b>7.14</b>	<b>2.20</b>	<b>1.66</b>	<b>3.05</b>	<b>4.53</b>	<b>7.30</b>
Unknown counties	3.97	1.94	8.18	0.00	0.00	0.00
Mixed counties	0.00	0.00	0.00	0.00	0.00	0.00
<b>STATE TOTALS</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 8. Percentage distribution of quail hunting pressure by region and county, 1977-82.

Region and County	Year					
	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>						
Box Elder	2.03	3.67	4.51	3.26	4.46	2.32
Cache	0.62	2.49	--	0.33	0.17	0.87
Davis	10.00	10.85	10.63	11.26	5.95	5.22
Morgan	0.78	2.20	2.36	1.47	0.83	0.29
Rich	0.00	0.00	0.11	0.00	0.00	0.43
Summit	0.31	0.44	0.86	0.33	0.00	0.43
Weber	10.47	6.74	6.12	7.83	3.97	7.97
<b>REGIONAL TOTALS</b>	<b>24.22</b>	<b>26.39</b>	<b>24.59</b>	<b>24.47</b>	<b>15.37</b>	<b>17.54</b>
<u>Central Region</u>						
Juab	0.16	0.29	0.21	0.65	1.65	0.72
Salt Lake	8.91	6.01	9.13	3.92	4.30	4.64
Sanpete	0.31	0.00	1.08	0.00	0.00	0.00
Tooele	0.31	0.59	0.32	0.16	1.65	0.58
Utah	16.09	29.47	21.91	15.33	25.45	26.52
Wasatch	0.00	0.29	--	0.33	0.50	0.00
<b>REGIONAL TOTALS</b>	<b>25.78</b>	<b>36.66</b>	<b>32.66</b>	<b>20.39</b>	<b>33.55</b>	<b>32.46</b>
<u>Southern Region</u>						
Beaver	0.00	0.00	0.21	0.00	0.17	0.14
Garfield	0.00	0.00	0.11	0.00	0.00	0.00
Iron	0.16	0.44	0.00	0.00	0.00	0.14
Kane	0.00	0.29	0.00	0.00	0.00	0.00
Millard	1.25	1.32	--	1.96	7.11	4.35
Piute	0.31	0.15	0.11	0.00	0.17	0.00
Sevier	1.09	0.44	0.86	0.00	0.17	1.01
Washington	16.09	8.65	14.61	33.93	21.65	16.38
Wayne	1.09	1.03	0.86	0.00	0.83	0.43
<b>REGIONAL TOTALS</b>	<b>20.00</b>	<b>12.32</b>	<b>16.75</b>	<b>35.89</b>	<b>30.08</b>	<b>22.46</b>
<u>Northeastern Region</u>						
Daggett	0.00	0.15	0.00	0.00	0.00	0.00
Duchesne	7.19	5.13	5.59	4.40	4.46	8.99
Uintah	10.47	14.96	7.52	9.14	10.08	10.58
<b>REGIONAL TOTALS</b>	<b>17.66</b>	<b>20.23</b>	<b>13.10</b>	<b>13.54</b>	<b>14.55</b>	<b>19.57</b>
<u>Southeastern Region</u>						
Carbon	5.78	2.35	3.01	1.79	4.79	4.06
Emery	3.59	0.88	1.18	3.59	1.32	3.04
Grand	0.00	0.00	0.43	0.00	0.00	0.00
San Juan	0.31	0.00	0.00	0.33	0.17	0.87
<b>REGIONAL TOTALS</b>	<b>9.69</b>	<b>3.23</b>	<b>4.62</b>	<b>5.71</b>	<b>6.28</b>	<b>7.97</b>
Unknown counties	2.66	1.17	8.27	0.00	0.17	0.00
Mixed counties	0.00	0.00	0.00	0.00	0.00	0.00
<b>STATE TOTALS</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 9. Statewide summary of quail harvest statistics, 1951-1982.

Year	Total Hunters	Total Harvest	Hunter-days Afield	Quail Per Hunter-day	Quail Per Hunter
1951	3,856	6,362	7,069	0.90	1.65
1952	2,694	6,105	5,500	1.11	2.27
1953	2,676	5,753	4,494	1.28	2.15
1954	3,855	7,479	8,696	0.86	1.94
1955	--	--	--	0.17	2.10
1956	--	--	--	--	2.26
1957	--	--	--	--	1.85
1958	--	--	--	--	3.73
1959	8,554	22,854	18,174	1.26	2.67
1960	7,117	21,272	13,971	1.52	2.99
1961	9,980	27,362	25,746	1.06	2.74
1962	6,462	18,710	14,660	1.27	2.89
1963	8,059	28,088	16,383	1.71	3.49
1964	8,951	31,189	20,510	1.52	3.48
1965	6,163	17,532	16,528	1.06	2.45
1966	6,465	22,771	16,720	1.36	3.52
1967	8,455	26,187	23,806	1.10	3.10
1968	9,302	28,469	23,132	1.23	3.06
1969	9,160	26,119	22,529	1.16	2.85
1970	6,141	18,896	16,452	1.15	3.08
1971	8,039	21,082	21,595	0.98	2.62
1972	7,380	16,504	21,779	0.76	2.24
1973	5,654	14,324	17,777	0.81	2.53
1974	6,097	12,005	14,702	0.82	1.97
1975	6,397	16,903	16,805	1.01	2.64
1976	5,215	14,454	13,261	1.09	2.77
1977	4,446	9,496	9,646	0.98	2.14
1978	5,924	15,491	13,649	1.13	2.61
1979	5,632	15,821	13,550	1.17	2.81
1980	4,156	11,690	10,400	1.12	2.81
1981	4,946	13,586	12,843	1.06	2.75
1982	4,368	9,870	10,575	0.93	2.26
<hr/>					
TOTALS (1959-82)	163,063	460,675	405,193	1.14	2.83
<hr/>					
AVERAGES (1959-81)	6,900	19,600	17,157	1.14	2.84

Table 10. Gambel's quail call count trend on the west slope of the Beaver Dam Mountains, Washington County, 1971-80. Annual call count surveys were conducted from 1962-80. Vegetative studies were discontinued in 1977.

Index	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980*
Mean calls per station	1.57	0.36	0.06	0.00	2.55	0.76	0.25	0.97	5.20	--*
Mean quail calling per station	0.37	0.11	0.03	0.00	0.40	0.13	0.03	0.19	0.53	--*
Mean total calls route	23.50	5.30	1.00	0.00	38.20	11.40	3.75	14.60	78.00	--*
Mean total quail calling route	5.50	1.70	0.40	0.00	6.00	2.00	0.50	2.80	8.00	--*

\*Discontinued.

Table 11. Gambel's quail long period waterhole count trend on the west slope of the Beaver Dam Mountains, Washington County, 1971-82. These counts have been conducted since 1962.

Index	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Total young	33	0	0	24	145	61	--	67	253	72	37	85
Total adults	8	0	0	6	20	53	--	29	77	52	25	33
Total quail	41	0	0	30	165	114	17	86	330	124	62	118
Young per 100 adults	412	--	--	400	725	115	--	353	329	138	148	258

# HUNGARIAN PARTRIDGE

## SUMMARY

Harvest data for 1981 indicated that 1982 breeding population densities were slightly greater than 1981. Very limited brood data indicated below average Hun densities for 1982.

The 1982 hunt indicated decreased hunting pressure on Huns when compared to 1981. The number of hunters and Huns harvested decreased in 1982. The hunter-days afield decreased 47 percent. Total hunters, days afield and harvest remained below the long-term average. Hunter success was also below the long-term average.



### Brood Counts

Results of the annual random brood counts for 1982 are shown in Table 1 of this section. Long-term trends of young-adult ratios, mean brood size and Huns observed per 100 hours are shown in Tables 2-4. Results of the survey for 1982 compared to 1981 and the previous 10-year average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Total Huns observed	56	-62	-65
Young per 100 adults	409	-32	-27
Mean brood size	11.25	-4	+7
Huns observed per 100 hours	144	-75	-29
Total hours effort	39	+50	-62

Harvest data for 1981 indicated an increase but slightly below average breeding population for 1982.

The hours of effort increased 50 percent from 1981, but still remained 62 percent below average. The number of Huns observed decreased 62 percent. Only four broods were observed in 1982, so that any trends based on this small sample is fairly unreliable. Mean brood size remained slightly above average.

### Harvest

#### Hunter Questionnaire

Results of the annual hunter questionnaire for 1982 are shown in Table 5. Long-term trends of Huns bagged per hunter-day, percent of harvest and percent of pressure (hunter-days) by county are found in Tables 6-8 and total statewide harvest statistics in Table 9. The 1982 season compared to 1981 and the previous 23-year average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Hungarian partridge hunters	2,590	-27	-37
Hungarian partridge harvest	4,475	-50	-51
Hunter-days afield	5,379	-47	-48
Huns per hunter-day	0.83	-6	-6
Huns per hunter	1.73	-31	-22

Hungarian partridge hunting pressure decreased significantly, and success also decreased during 1982 as compared to 1981. Harvest was 51 percent below the long-term average.

Field Bag Checks

Results of the survey for 1982 are shown in Table 10. Hunter success trends determined via this method are shown in Table 11. Indices obtained for 1982 compared to 1981 and the previous 10-year average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Total hunters checked	18	-71	-69
Total hours hunted	74	-68	-71
Huns per hunter (complete hunts)	1.33	+20	+96
Huns bagged per 100 hours	32	+7	+100
Average hours per hunter-day (complete hunts)	4.1	-11	+3
Hours hunted per Hun bagged (complete hunts)	3.1	-6	-63



Hungarian partridge bagged per hunter and per hunter-day.

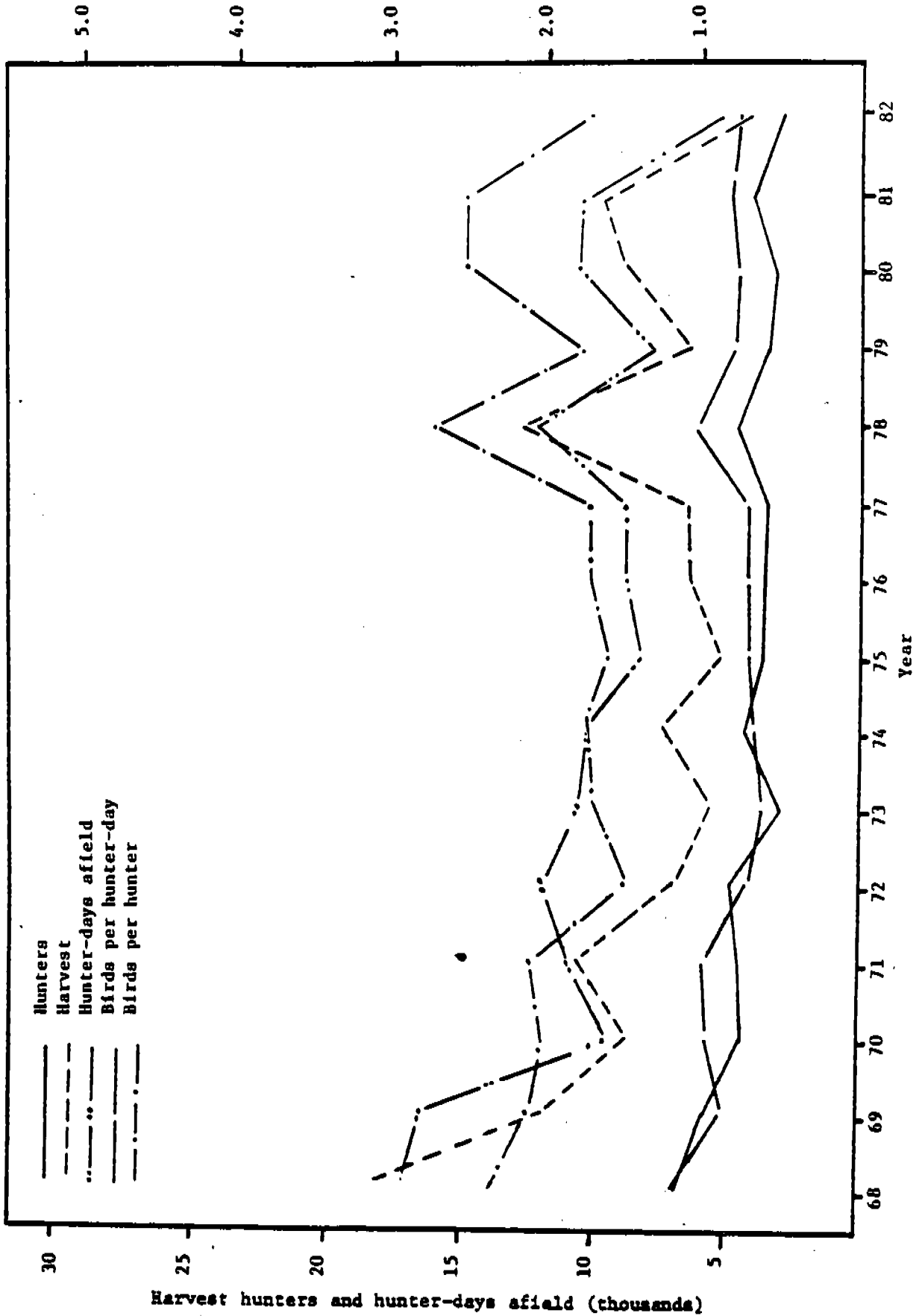


Figure 1. Statewide trend of Hungarian partridge harvest statistics.

Table 1. Hungarian partridge summer inventory summary, 1982.

Region and County	Distinct Broods		Mean Brood	Mixed Yng & Adults		Adults w/o Yng	Total Adults	Total Yng	Total Yng/100 Ad	Veh. Miles	Hours of Effort		Birds/100 Hr
	# Ad	Yng		Ad	Yng						Veh. Horse	Walk Total	
<u>Northern Region</u>													
Box Elder	4	8	45	11.25	0	0	3	45	409	324	19	20	144
Cache	--	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>4</b>	<b>8</b>	<b>45</b>	<b>11.25</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>45</b>	<b>409</b>	<b>324</b>	<b>19</b>	<b>20</b>	<b>144</b>
<u>Central Region</u>													
Juab	--	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<u>Southern Region</u>													
Beaver	--	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<u>Northeastern Region</u>													
Daggett	--	--	--	--	--	--	--	--	--	--	--	--	--
Duchesne	--	--	--	--	--	--	--	--	--	--	--	--	--
Uintah	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<u>Southeastern Region</u>													
Carbon	--	--	--	--	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>STATE TOTALS</b>	<b>4</b>	<b>8</b>	<b>45</b>	<b>11.25</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>45</b>	<b>409</b>	<b>324</b>	<b>19</b>	<b>20</b>	<b>144</b>

NOT APPLICABLE

NOT APPLICABLE

NOT APPLICABLE

Table 2. Trend of Hungarian partridge young per 100 adults, 1972-82.

Region and County	Year											Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	379	575	775	600	421	467	580	840	688	671	409	
Cache	--	--	--	--	--	--	--	--	--	--	--	
Davis	--	--	--	--	--	--	--	--	--	--	--	
Morgan	--	400	675	--	533	--	--	--	--	--	--	
Rich	--	--	--	--	--	--	--	--	700	300	--	
Summit	--	--	--	--	--	--	--	--	--	--	--	
Weber	--	--	--	--	--	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	<b>379</b>	<b>560</b>	<b>755</b>	<b>600</b>	<b>431</b>	<b>467</b>	<b>580</b>	<b>840</b>	<b>691</b>	<b>600</b>	<b>409</b>	<b>590</b>
<u>Central Region</u>												
Juab	--	--	--	--	--	--	--	500	--	--	--	
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	
Sanpete	--	--	--	--	233	173	--	--	--	--	--	
Tooele	--	--	--	--	550	--	--	--	--	--	--	
Utah	--	--	--	--	--	--	--	--	0	--	--	
Wasatch	800	450	800	--	20	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	<b>800</b>	<b>450</b>	<b>800</b>	<b>--</b>	<b>200</b>	<b>173</b>	<b>--</b>	<b>500</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>487</b>
<u>Southern Region</u>												
Beaver												
Garfield												
Iron												
Kane												
Millard												
Piute												
Sevier												
Washington												
Wayne												
<b>REGIONAL TOTALS</b>												
<u>Northeastern Region</u>												
Daggett												
Duchesne												
Uintah												
<b>REGIONAL TOTALS</b>												
<u>Southeastern Region</u>												
Carbon												
Emery												
Grand												
San Juan												
<b>REGIONAL TOTALS</b>												
<b>STATE TOTALS</b>	<b>424</b>	<b>552</b>	<b>757</b>	<b>600</b>	<b>328</b>	<b>369</b>	<b>580</b>	<b>780</b>	<b>633</b>	<b>600</b>	<b>409</b>	<b>562</b>

NOT APPLICABLE

NOT APPLICABLE

NOT APPLICABLE

Table 3. Trend of Hungarian partridge mean brood size from 1972-82.

Region and County	Year											Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	11.50	11.86	11.22	13.44	10.22	10.77	11.60	8.40	11.00	12.00	11.25	
Cache	--	--	--	--	--	--	--	--	--	--	--	
Davis	--	--	--	--	--	--	--	--	--	--	--	
Morgan	--	8.33	13.50	--	--	--	--	--	--	--	--	
Rich	--	--	--	--	--	--	--	--	7.00	6.00	--	
Summit	--	--	--	--	--	--	--	--	--	--	--	
Weber	--	--	--	--	--	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	11.50	10.80	11.64	13.44	10.22	10.77	11.60	8.40	9.50	10.80	11.25	10.89
<u>Central Region</u>												
Juab	--	--	--	--	--	--	--	5.00	--	--	--	
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	
Sanpete	--	--	--	--	--	--	--	--	--	--	--	
Tooele	--	--	--	--	--	--	--	--	--	--	--	
Utah	--	--	--	--	--	--	--	--	--	--	--	
Wasatch	8.00	4.50	8.00	--	2.00	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	8.00	4.50	8.00	--	2.00	--	--	5.00	--	--	--	5.50
<u>Southern Region</u>												
Beaver												
Garfield												
Iron												
Kane												
Millard												
Plute												
Sevier												
Washington												
Wayne												
<b>REGIONAL TOTALS</b>												
<u>Northeastern Region</u>												
Daggett												
Duchesne												
Uintah												
<b>REGIONAL TOTALS</b>												
<u>Southeastern Region</u>												
Carbon												
Emery												
Grand												
San Juan												
<b>REGIONAL TOTALS</b>												
<b>STATE TOTALS</b>	10.33	9.75	11.33	13.44	9.40	10.77	11.60	7.83	9.50	10.80	11.25	10.48

Table 4. Trend of Hungarian partridge observed per 100 hours, 1972-82.

Region and County	Year											Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	133	91	80	262	184	109	203	235	154	570	144	
Cache	--	--	--	--	--	--	--	--	--	--	--	
Davis	--	--	--	--	--	--	--	--	--	--	--	
Morgan	--	428	--	--	1,900	--	--	--	--	--	--	
Rich	--	--	--	--	--	--	--	--	--	--	--	
Summit	--	--	--	--	--	--	--	--	--	--	--	
Weber	--	--	--	--	--	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	<b>133</b>	<b>106</b>	<b>97</b>	<b>262</b>	<b>205</b>	<b>109</b>	<b>151</b>	<b>174</b>	<b>158</b>	<b>639</b>	<b>144</b>	<b>203</b>
<u>Central Region</u>												
Juab	--	--	--	--	--	--	--	600	--	--	--	
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	
Sanpete	--	--	--	--	400	820	--	--	--	--	--	
Tooele	--	--	--	--	2,600	--	--	--	--	--	--	
Utah	--	--	--	--	--	--	--	--	--	--	--	
Wasatch	450	275	450	--	120	--	--	0	33	--	--	
<b>REGIONAL TOTALS</b>	<b>171</b>	<b>275</b>	<b>450</b>	<b>--</b>	<b>371</b>	<b>820</b>	<b>--</b>	<b>200</b>	<b>17</b>	<b>--</b>	<b>--</b>	<b>329</b>
<u>Southern Region</u>												
Beaver												
Garfield												
Iron												
Kane												
Millard												
Piute												
Sevier												
Washington												
Wayne												
<b>REGIONAL TOTALS</b>												
<u>Northeastern Region</u>												
Daggett												
Duchesne												
Uintah												
<b>REGIONAL TOTALS</b>												
<u>Southeastern Region</u>												
Carbon												
Emery												
Grand												
San Juan												
<b>REGIONAL TOTALS</b>												
<b>STATE TOTALS</b>	<b>139</b>	<b>110</b>	<b>101</b>	<b>262</b>	<b>238</b>	<b>131</b>	<b>151</b>	<b>177</b>	<b>144</b>	<b>565</b>	<b>144</b>	<b>202</b>

NOT APPLICABLE

NOT APPLICABLE

NOT APPLICABLE

Table 5. Summary of Hungarian partridge hunter success and distribution of harvest and hunting pressure by region and county, 1982.

Region and County	Sample Size*	Hunter-days Afield	Birds Bagged	Birds per Hunter-day	% of Pressure	% of Harvest
<b>NORTHERN REGION</b>						
BOX ELDER	126	4,015	3,341	0.83	74.65	74.66
CACHE	23	505	521	1.03	9.40	11.64
DAVIS	1	15	76	5.00	0.28	1.71
MORGAN	6	229	321	1.40	4.27	7.19
RICH	2	30	61	2.00	0.57	1.37
SUMMIT	3	61	0	0.00	1.14	0.00
WEBER	3	76	76	1.00	1.42	1.71
<b>REGIONAL TOTALS</b>	<b>164</b>	<b>4,935</b>	<b>4,398</b>	<b>0.89</b>	<b>91.75</b>	<b>98.29</b>
<b>CENTRAL REGION</b>						
JUAB	0	0	0	0.00	0.00	0.00
SALT LAKE	1	15	0	0.00	0.28	0.00
SANPETE	0	0	0	0.00	0.00	0.00
TOOELE	4	214	0	0.00	3.99	0.00
UTAH	2	107	0	0.00	1.99	0.00
WASATCH	2	45	0	0.00	0.85	0.00
<b>REGIONAL TOTALS</b>	<b>9</b>	<b>383</b>	<b>0</b>	<b>0.00</b>	<b>7.12</b>	<b>0.00</b>
<b>SOUTHERN REGION</b>						
BEAVER	0	0	0	0.00	0.00	0.00
GARFIELD	0	0	0	0.00	0.00	0.00
IRON	1	15	15	1.00	0.28	0.34
KANE	0	0	0	0.00	0.00	0.00
MILLARD	0	0	0	0.00	0.00	0.00
PIUTE	0	0	0	0.00	0.00	0.00
SEVIER	0	0	0	0.00	0.00	0.00
WASHINGTON	0	0	0	0.00	0.00	0.00
WAYNE	0	0	0	0.00	0.00	0.00
<b>REGIONAL TOTALS</b>	<b>1</b>	<b>15</b>	<b>15</b>	<b>1.00</b>	<b>0.28</b>	<b>0.34</b>
<b>NORTHEASTERN REGION</b>						
DAGGETT	1	15	0	0.00	0.28	0.00
DUCHESNE	0	0	0	0.00	0.00	0.00
UINTAH	1	30	61	2.00	0.57	1.37
<b>REGIONAL TOTALS</b>	<b>2</b>	<b>45</b>	<b>61</b>	<b>1.33</b>	<b>0.85</b>	<b>1.37</b>
<b>SOUTHEASTERN REGION</b>						
CARBON	0	0	0	0.00	0.00	0.00
EMERY	0	0	0	0.00	0.00	0.00
GRAND	0	0	0	0.00	0.00	0.00
SAN JUAN	0	0	0	0.00	0.00	0.00
<b>REGIONAL TOTALS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
UNKNOWN	0	0	0	0.00	0.00	0.00
<b>STATE TOTALS</b>	<b>176</b>	<b>5,379</b>	<b>4,475</b>	<b>0.83</b>	<b>100.00</b>	<b>100.00</b>

\*Total hunter-trips from questionnaire returns.

Table 6. Summary of Hungarian partridge bagged per hunter-day by region and county, 1977-82.

Region and County	Year					
	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>						
Box Elder	0.74	1.19	0.94	0.88	1.31	0.83
Cache	0.92	0.67	0.93	0.77	0.60	1.03
Davis	0.00	2.00	0.76	1.50	0.00	5.00
Morgan	0.44	0.27	1.36	2.25	0.50	1.40
Rich	0.22	2.80	0.56	1.00	0.50	2.00
Summit	0.88	2.00	0.50	1.00	1.50	0.00
Weber	0.97	0.91	0.32	1.00	0.00	1.00
<u>REGIONAL TOTALS</u>	<u>0.76</u>	<u>1.07</u>	<u>0.90</u>	<u>0.88</u>	<u>1.10</u>	<u>0.89</u>
<u>Central Region</u>						
Juab	0.33	0.67	0.00	0.00	1.20	0.00
Salt Lake	0.75	1.50	0.00	1.00	0.06	0.00
Sanpete	0.00	0.00	0.00	0.00	0.00	0.00
Tooele	0.21	0.00	0.50	0.60	0.09	0.00
Utah	0.27	0.33	1.00	0.28	0.25	0.00
Wasatch	0.55	1.64	0.13	0.68	0.40	0.00
<u>REGIONAL TOTALS</u>	<u>0.36</u>	<u>0.83</u>	<u>0.27</u>	<u>0.48</u>	<u>0.18</u>	<u>0.00</u>
<u>Southern Region</u>						
Beaver	0.00	0.00	0.00	2.50	0.00	0.00
Garfield	0.50	0.00	0.00	0.00	0.00	0.00
Iron	0.00	0.00	0.00	0.00	0.00	1.00
Kane	0.00	0.00	0.00	0.00	0.00	0.00
Millard	0.00	0.00	0.00	0.00	0.00	0.00
Piute	0.00	0.00	0.00	0.00	0.00	0.00
Sevier	1.00	0.00	0.00	0.00	0.00	0.00
Washington	0.00	0.00	0.00	2.50	0.00	0.00
Wayne	0.00	0.00	0.00	0.00	0.00	0.00
<u>REGIONAL TOTALS</u>	<u>0.50</u>	<u>0.00</u>	<u>0.00</u>	<u>1.00</u>	<u>0.00</u>	<u>1.00</u>
<u>Northeastern Region</u>						
Daggett	0.00	0.00	0.00	0.00	0.00	0.00
Duchesne	0.00	0.00	0.00	1.20	1.00	0.00
Uintah	0.00	0.50	0.00	0.00	1.00	2.00
<u>REGIONAL TOTALS</u>	<u>0.00</u>	<u>0.50</u>	<u>0.00</u>	<u>1.20</u>	<u>1.00</u>	<u>1.33</u>
<u>Southeastern Region</u>						
Carbon	0.00	0.00	0.00	1.00	0.00	0.00
Emery	0.00	0.00	0.00	0.00	1.00	0.00
Grand	0.00	0.00	0.00	0.00	0.00	0.00
San Juan	0.00	0.00	0.00	0.00	0.00	0.00
<u>REGIONAL TOTALS</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>1.00</u>	<u>1.00</u>	<u>0.00</u>
Unknown counties	0.64	1.00	0.65	0.00	0.00	0.00
Mixed counties	0.00	0.00	0.00	0.00	0.00	0.00
<u>STATE TOTALS</u>	<u>0.70</u>	<u>1.05</u>	<u>0.80</u>	<u>0.82</u>	<u>0.88</u>	<u>0.83</u>

Table 7. Percentage distribution of Hungarian partridge harvest by region and county, 1977-82.

Region and County	Year					
	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>						
Box Elder	66.35	78.40	62.44	73.75	78.81	74.66
Cache	14.45	8.33	18.54	9.82	13.81	11.64
Davis	0.00	0.31	3.76	0.60	0.00	1.71
Morgan	1.66	1.39	4.46	1.80	0.71	7.19
Rich	0.47	2.16	1.17	0.20	0.48	1.37
Summit	1.66	0.62	0.23	0.40	0.71	0.00
Weber	6.87	1.54	1.65	0.20	0.00	1.71
<b>REGIONAL TOTALS</b>	<b>91.47</b>	<b>92.75</b>	<b>92.25</b>	<b>86.77</b>	<b>94.52</b>	<b>98.29</b>
<u>Central Region</u>						
Juab	0.47	0.31	0.00	0.00	1.43	0.00
Salt Lake	0.71	0.93	0.00	0.20	0.24	0.00
Sanpete	0.00	0.00	0.00	0.00	0.00	0.00
Tooele	0.71	0.00	1.17	2.40	1.43	0.00
Utah	1.42	0.46	2.11	2.61	1.19	0.00
Wasatch	2.61	2.78	1.41	4.61	0.48	0.00
<b>REGIONAL TOTALS</b>	<b>5.92</b>	<b>4.48</b>	<b>4.69</b>	<b>9.82</b>	<b>4.76</b>	<b>0.00</b>
<u>Southern Region</u>						
Beaver	0.00	0.00	0.00	1.00	0.00	0.00
Garfield	0.24	0.00	0.00	0.00	0.00	0.00
Iron	0.00	0.00	0.00	0.00	0.00	0.34
Kane	0.00	0.00	0.00	0.00	0.00	0.00
Millard	0.00	0.00	0.00	0.00	0.00	0.00
Piute	0.00	0.00	0.00	0.00	0.00	0.00
Sevier	0.24	0.00	0.00	0.00	0.00	0.00
Washington	0.00	0.00	0.00	1.00	0.00	0.00
Wayne	0.00	0.00	0.00	0.00	0.00	0.00
<b>REGIONAL TOTALS</b>	<b>0.47</b>	<b>0.00</b>	<b>0.00</b>	<b>2.00</b>	<b>0.00</b>	<b>0.34</b>
<u>Northeastern Region</u>						
Daggett	0.00	0.00	0.00	0.00	0.00	0.00
Duchesne	0.00	0.00	0.00	1.20	0.24	0.00
Uintah	0.00	0.15	0.00	0.00	0.24	1.37
<b>REGIONAL TOTALS</b>	<b>0.00</b>	<b>0.15</b>	<b>0.00</b>	<b>1.20</b>	<b>0.48</b>	<b>1.37</b>
<u>Southeastern Region</u>						
Carbon	0.00	0.00	0.00	0.20	0.00	0.00
Emery	0.00	0.00	0.00	0.00	0.24	0.00
Grand	0.00	0.00	0.00	0.00	0.00	0.00
San Juan	0.00	0.00	0.00	0.00	0.00	0.00
<b>REGIONAL TOTALS</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.20</b>	<b>0.24</b>	<b>0.00</b>
Unknown counties	2.13	2.62	3.05	0.00	0.00	0.00
Mixed counties	0.00	0.00	0.00	0.00	0.00	0.00
<b>STATE TOTALS</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>



Table 8. Percentage distribution of Hungarian partridge hunting pressure by region and county, 1977-82.

Region and County	Year					
	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>						
Box Elder	62.56	69.32	53.08	68.58	52.72	74.65
Cache	10.98	13.15	15.89	10.47	20.08	9.40
Davis	0.33	0.16	3.93	0.33	0.21	0.28
Morgan	2.66	5.36	2.62	0.65	1.26	4.27
Rich	1.50	0.81	1.68	0.16	0.84	0.57
Summit	1.33	0.32	0.37	0.33	0.42	1.14
Weber	4.99	1.79	4.11	0.16	0.21	1.42
REGIONAL TOTALS	84.36	90.91	81.68	80.69	75.73	91.75
<u>Central Region</u>						
Juab	1.00	0.49	0.37	0.16	1.05	0.00
Salt Lake	0.67	0.65	0.19	0.16	3.35	0.28
Sanpete	0.50	1.14	1.12	0.00	0.00	0.00
Tooele	2.33	0.16	1.87	3.27	13.60	3.99
Utah	3.66	1.46	1.68	7.53	4.18	1.99
Wasatch	3.33	1.79	8.60	5.56	1.05	0.85
REGIONAL TOTALS	11.48	5.68	13.83	16.69	23.22	7.12
<u>Southern Region</u>						
Beaver	0.00	0.00	0.00	0.33	0.00	0.00
Garfield	0.33	0.00	0.00	0.00	0.00	0.00
Iron	0.00	0.00	0.00	0.00	0.00	0.28
Kane	0.00	0.00	0.00	0.00	0.00	0.00
Millard	0.00	0.00	0.00	0.33	0.00	0.00
Piute	0.00	0.16	0.00	0.65	0.00	0.00
Sevier	0.17	0.00	0.00	0.00	0.00	0.00
Washington	0.17	0.00	0.00	0.33	0.00	0.00
Wayne	0.00	0.00	0.00	0.00	0.00	0.00
REGIONAL TOTALS	0.67	0.16	0.00	1.64	0.00	0.28
<u>Northeastern Region</u>						
Daggett	0.00	0.00	0.00	0.00	0.00	0.28
Duchesne	0.00	0.00	0.37	0.82	0.21	0.00
Uintah	1.00	0.32	0.00	0.00	0.21	0.57
REGIONAL TOTALS	1.00	0.32	0.37	0.82	0.42	0.85
<u>Southeastern Region</u>						
Carbon	0.00	0.00	0.19	0.16	0.00	0.00
Emery	0.17	0.00	0.00	0.00	0.21	0.00
Grand	0.00	0.00	0.00	0.00	0.00	0.00
San Juan	0.00	0.00	0.00	0.00	0.00	0.00
REGIONAL TOTALS	0.17	0.16	0.38	0.16	0.21	0.00
Unknown counties	2.33	2.76	3.74	0.00	0.42	0.00
Mixed counties	0.00	0.00	0.00	0.00	0.00	0.00
STATE TOTALS	100	100	100	100	100	100

Table 9. Statewide summary of Hungarian partridge harvest statistics, 1955-82.

Year	Total Hunters	Total Harvest	Hunter-days Afield	Huns Per Hunter-day	Huns Per Hunter
1955	--	--	--	--	0.39
1956	--	--	--	--	0.89
1957	--	--	--	--	0.45
1958	--	--	--	--	1.34
1959	1,846	1,820	3,354	0.54	0.99
1960	2,847	4,877	4,929	0.99	1.71
1961	3,205	3,648	6,645	0.54	1.13
1962	3,440	8,970	9,153	0.98	2.61
1963	4,676	13,343	13,291	1.00	2.85
1964	4,249	11,812	9,688	1.22	2.78
1965	4,498	12,183	11,798	1.03	2.71
1966	4,549	15,348	11,473	1.34	3.37
1967	6,321	16,049	15,105	1.06	2.54
1968	6,935	17,089	16,674	1.02	2.46
1969	5,591	11,966	15,515	0.77	2.14
1970	4,128	8,236	9,818	0.84	2.00
1971	4,276	9,407	11,011	0.85	2.20
1972	4,754	7,335	12,135	0.60	1.54
1973	3,566	6,014	11,516	0.52	1.69
1974	4,103	7,389	10,789	0.68	1.80
1975	3,409	5,358	8,216	0.65	1.57
1976	3,517	6,287	8,753	0.72	1.79
1977	5,557	6,360	9,058	0.70	1.79
1978	4,743	12,969	12,328	1.05	2.73
1979	3,435	6,200	7,787	0.80	1.80
1980	3,359	8,466	10,366	0.82	2.52
1981	3,545	8,916	10,147	0.88	2.52
1982	2,590	4,475	5,379	0.83	1.73
TOTAL (1959-82)	97,139	214,517	244,928	0.88	2.21
AVERAGES (1959-81)	4,111	9,132	10,415	0.88	2.22

Table 10. Hungarian partridge field bag check summary, 1982.

Region and County	ALL HUNTS				COMPLETE HUNTS						
	Total Parties	Total Hunters	Total Hours	Total Birds 100 Hr	Total Complete Hunts	Total Hunters	Total Hours	Total Birds 100 Hr	Birds/ Hunter		
<u>Northern Region</u>											
Box Elder	7	18	74	24	32	7	18	74	24	32	1.33
Cache	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	7	18	74	24	32	7	18	74	24	32	1.33
<u>Central Region</u>											
Juab											
Salt Lake											
Sanpete											
Tooele											
Utah											
Wasatch											
<b>REGIONAL TOTALS</b>											
<u>Southern Region</u>											
Beaver											
Garfield											
Iron											
Kane											
Millard											
Piute											
Sevier											
Washington											
Wayne											
<b>REGIONAL TOTALS</b>											
<u>Northeastern Region</u>											
Daggett											
Duchesne											
Uintah											
<b>REGIONAL TOTALS</b>											
<u>Southeastern Region</u>											
Carbon											
Emery											
Grand											
San Juan											
<b>REGIONAL TOTALS</b>											
<b>STATE TOTALS</b>	7	18	74	24	32	7	18	74	24	32	1.33

NO DATA

NOT APPLICABLE

NOT APPLICABLE

NOT APPLICABLE

Table 11. Hungarian partridge hunter success trend determined by field bag checks, 1977-82.

Region and County	1977		1978		1979		1980		1981		1982	
	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter	Birds/ 100 Hr Hunter
<u>Northern Region</u>												
Box Elder	36	0.92	17	0.92	4	0.13	13	0.36	30	1.11	32	1.33
Cache	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	0.00	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>36</b>	<b>0.92</b>	<b>16</b>	<b>0.80</b>	<b>4</b>	<b>0.13</b>	<b>13</b>	<b>0.36</b>	<b>30</b>	<b>1.11</b>	<b>32</b>	<b>1.33</b>
<u>Central Region</u>												
Juab	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--	--
Wasatch	7	0.33	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>7</b>	<b>0.33</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<u>Southern Region</u>												
Beaver												
Garfield												
Iron												
Kane												
Millard												
Piute												
Sevier												
Washington												
Wayne												
<b>REGIONAL TOTALS</b>												
<u>Northeastern Region</u>												
Daggett												
Duchesne												
Uintah												
<b>REGIONAL TOTALS</b>												
<u>Southeastern Region</u>												
Carbon												
Emery												
Grand												
San Juan												
<b>REGIONAL TOTALS</b>												
<b>STATE TOTALS</b>	<b>26</b>	<b>0.80</b>	<b>16</b>	<b>0.80</b>	<b>4</b>	<b>0.13</b>	<b>13</b>	<b>0.36</b>	<b>30</b>	<b>1.11</b>	<b>32</b>	<b>1.33</b>

NOT APPLICABLE

NOT APPLICABLE

NOT APPLICABLE

# WILD TURKEY

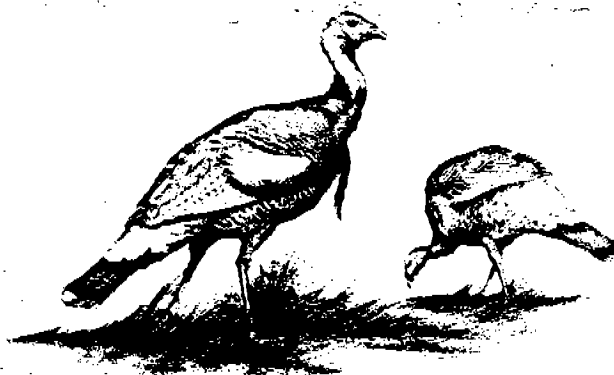
## SUMMARY

Turkey populations remain very low, with the exception of the East Zion unit, where the turkeys appear to be slowly increasing in numbers. Previous year's droughts and severe winters are believed to be the major factors in the general decline of wild turkeys.

Hunter success and turkey observation data for the 1982 spring and fall seasons indicated that the East Zion area had another year of stable or increasing turkey population. However, the remaining units of the state were either closed to hunting or have declining populations of turkeys.

Spring hunting pressure was up from 1981 but hunter success was down 30 percent. In contrast, fall hunting pressure was down and hunter success was up 5 percent. A total of 23 turkeys were harvested in 1982 compared to 26 taken in 1981. Observations of turkey increased in 1982, with most observations made on the East Zion area.

Precipitation in south-central Utah was slightly above normal from May through August, while temperatures were slightly below normal. The effect on production has not been determined because of limited data.



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### Brood Counts

Annual random brood counts have been conducted each year since the introduction of turkeys into Utah in the early 1950's; however, success in finding broods has usually been poor. Sample sizes have generally been too low to meaningfully indicate relative density or production from year to year. Spring harvest data for 1982 indicated an average breeding population on the East Zion unit, but harvest declined slightly from 1981. Fair reproductive success was also evident from the 1981 fall harvest statistics. No turkey brood observations were reported in 1982.

### Harvest

#### Spring Gobbler Season

Results of the 1982 spring season are shown in Table 1 of this section. The trend of these data since the first season in 1967 is shown in Table 2. The 1982 spring season compared to 1981 and the previous 15-year average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Permits sold	91	+10	-38
Hunters afield	80	+33	-41
Turkeys harvested	12	-14	0
Hunter-days afield	184	+43	-46
Percent hunter success	16	-30	+78
Turkeys bagged per hunter-day	0.07	-36	+75
Percent of hunters who observed turkeys	62	+17	+94

Permit sales and hunters afield increased from 1981 but still remained below average. The total harvest has decreased from 14 in 1981 to 12 in 1982, but is equal to the 15 year average. The proportion of hunters who reported having observed turkeys increased 17 percent above the 1981 level and 94 percent above average. The East Zion unit again accounted for 73 percent of the hunting pressure based on hunter-days afield.

The trend of spring turkey harvest statistics is shown in Figure 1.

### Fall Season

Results of the 1982 fall season are shown in Table 3 of this section. The trend of these data since 1970 are shown in Tables 4-9. The 1982 fall season compared to 1981 and the previous 18-year average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Permits sold	56	-11	-62
Hunters afield	50	-9	-63
Turkeys harvested	11	-8	-72
Hunter-days afield	136	+19	-55
Percent hunter success	23	+5	+5
Turkeys bagged per hunter-day	0.08	-27	-38
Percent of hunters who observed turkeys	47	+47	+38

Approximately 10 percent of the turkey hunters used rifles during the fall hunt and 18 percent of the turkeys killed during the fall hunt were killed by rifle. A few hunters hunted with bow and arrow and muzzle loading rifles, but shotguns were still the most popular weapon for turkey hunters.

The trend of fall harvest statistics is shown in Figure 2.

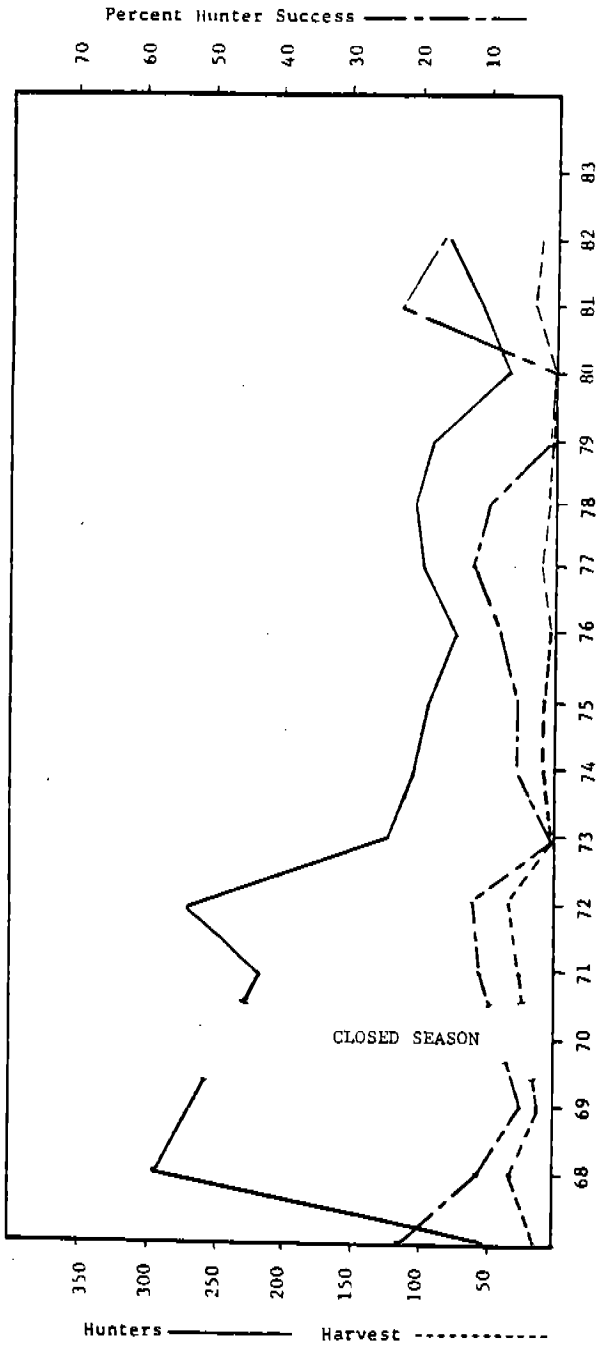


Figure 1. Wild turkey gobble harvest trends for spring seasons.

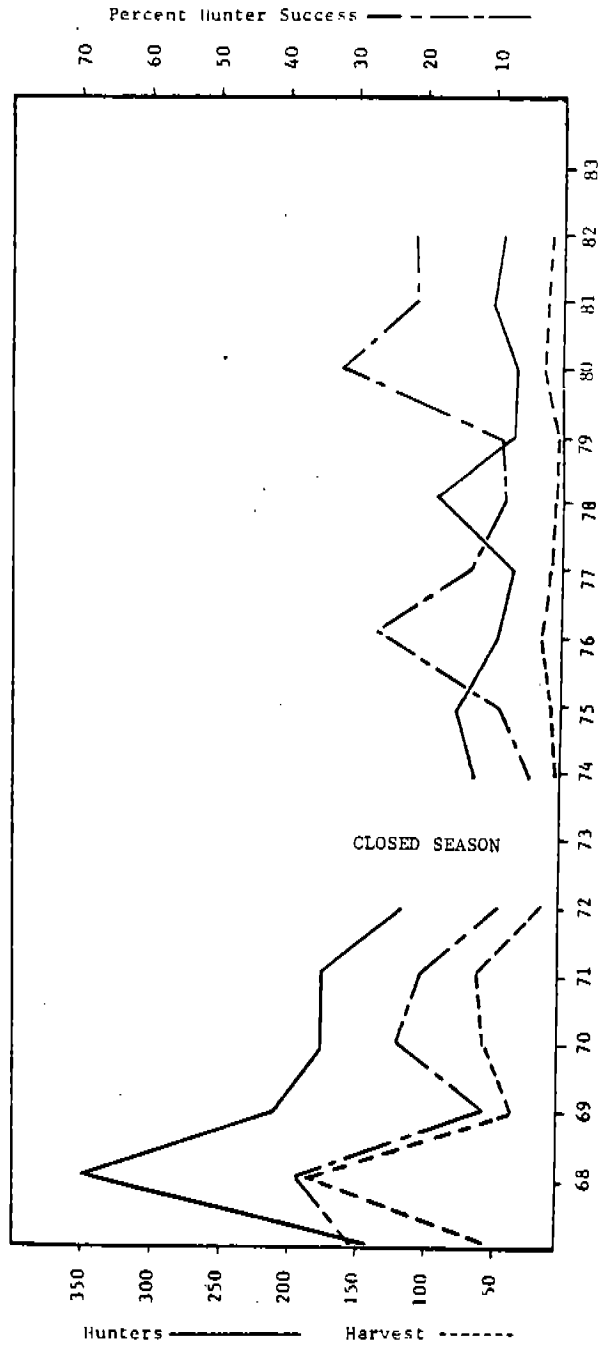


Figure 2. Wild turkey harvest trends for fall seasons.



Table 1. Summary of the 1982 spring turkey season.

Data	Elk Ridge		East Zion		Boulder		LaSal		Beaver		Pine Valley		Mixed Units		STATE TOTALS	
	Rep't	Calc	Rep't	Calc	Rep't	Calc	Rep't	Calc	Rep't	Calc	Rep't	Calc	Rep't	Calc	Rep't	Calc
Permits sold															91	--
No hunts															11	11
Hunters afield															77	80
Hunter-days															178	184
Turkeys bagged															12	12
Percent success															16	--
Turkeys bagged per hunter-day															0.07	--
Reported crippling loss (loss/100 bagged)															67	--
Turkeys observed															100	--
Gobblers															5	--
Hens															7	--
Unidentified															3	--
Number of hunters who saw turkeys															6	--
Percent of hunters who saw turkeys															70	--
															35	--

Projection factor = 1.034

Table 2. Summary of turkey harvest statistics for spring gobbler seasons, 1967-82.

Hunting Unit	Year	Hunters		Total Harvest	Hunter-days		Percent Success*	Turkeys per Hunter-day		Percent of Hunters Observing	Total Permits**	
		Afield			Afield			Hunter-day	Turkeys		Permits	Permits
EAST ZION	1967	24	9	59	38	0.15	58					
	1968	130	16	364	11	0.04	48					
	1969	77	4	210	6	0.02	35					
	1970				NO SEASON							
	1971	106	14	272	12	0.05	38					
	1972	113	20	321	14	0.06	47					
	1973	43	0	96	0	0.00	14					
	1974	34	2	73	7	0.03	23					
	1975	29	3	42	8	0.06	33					
	1976	31	5	74	16	0.05	38					
	1977	47	6	117	13	0.05	48					
	1978	36	4	80	13	0.06	56					
	1979	35	1	95	4	0.01	11					
	1980	35	0	84	0	0.00	17					
	1981	39	13	94	32	0.14	68					
1982	62	11	134	18	0.08	70						
BOULDER MOUNTAINS	1967	17	2	43	12	0.05	75					
	1968	134	15	330	10	0.05	33					
	1969	141	6	300	4	0.02	16					
	1970				NO SEASON							
	1971	27	1	64	4	0.02	13					
	1972	42	3	107	8	0.03	28					
	1973	22	0	52	0	0.00	6					
	1974	23	0	56	0	0.00	25					
	1975	16	1	34	7	0.04	8					
	1976	12	0	25	0	0.00	10					
	1977	6	0	13	0	0.00	40					
	1978	16	1	31	0	0.00	14					
	1979	5	0	10	0	0.00	0					
	1980				NO SEASON							
	1981				NO SEASON							
1982				NO SEASON								

Table 2 (continued)

Hunting Unit	Year	Hunters		Total Harvest	Hunter-days		Percent Success*	Turkeys per Hunter-day	Percent of Hunters		Total Permits**
		Afield			Afield				Observing Turkeys		
LASAL MOUNTAINS	1967	6		0	16		0	0.00			33
	1968	17		0	44		0	0.00			62
	1969	39		3	102		9	0.03			24
	1970					N O	S E A S O N				
	1971	17		1	34		6	0.03			20
	1972	50		3	129		7	0.03			29
	1973	23		0	53		0	0.00			16
	1974	20		0	66		0	0.00			11
	1975	11		0	30		0	0.00			33
	1976	8		0	25		0	0.00			14
	1977	24		4	53		15	0.07			45
	1978	32		2	78		7	0.03			38
1979	34		0	74		0	0.00			7	
1980					N O	S E A S O N					
1981	18		1	31		6	0.03			24	
1982	18		1	50		6	0.02			35	
BEAVER MOUNTAINS	1971	27		2	54		8	0.04			39
	1972	17		2	53		13	0.04			20
	1973	17		0	34		0	0.00			7
	1974	1		0	1		0	0.00			0
	1975	5		0	7		0	0.00			0
	1976	2		0	8		0	0.00			0
	1977	4		0	14		0	0.00			0
	1978	2		0	7		0	0.00			50
	1979					N O	S E A S O N				
	1980					N O	S E A S O N				
	1981					N O	S E A S O N				
	1982					N O	S E A S O N				

Table 2 (continued)

Hunting Unit	Year	Hunters		Total Harvest	Hunter-days		Percent Success*	Turkeys per		Percent of Hunters Observing Turkeys	Total Permits**
		Afield	Afield		Afield	Hunter-day					
PINE VALLEY MOUNTAINS	1971	23	4	92	15	0.04	70				
	1972	22	1	52	5	0.02	42				
	1973	17	0	38	0	0.00	7				
	1974	8	1	23	14	0.05	43				
	1975	6	0	12	0	0.00	0				
	1976		0	13	0	0.00	40				
	1977	2	0	7	0	0.00	0				
	1978	0	0	0	0	0.00	0				
	1979	3	0	15	0	0.00	0				
	1980	0	0	0	0	0.00	0				
	1981	2	0	2	0	0.00	0				
	1982	0	0	0	0	0.00	0				
BLUE MOUNTAIN-ELK RIDGE	1974	17	2	34	13	0.07	27				
	1975	19	1	62	6	0.02	56				
	1976	11	0	23	0	0.00	33				
	1977	7	1	14	17	0.08	17				
	1978	12	2	39	18	0.06	36				
	1979	8	0	17	0	0.00	0				
	1980			NO	SEASON						
	1981			NO	SEASON						
	1982			NO	SEASON						
	MIXED UNITS	1971	15	4		15		61			
1972		25	5	89	18	0.05	50				
1973		12	0	38	0	0.00	0				
1974		9	0	36	0	0.00	12				
1975		11	0	32	0	0.00	22				
1976		4	1	17	25	0.07	100				
1977		9	1	29	13	0.04	50				
1978		3	0	11	0	0.00	67				
1979		6	0	27	0	0.00	20				
1980		0	0	0	0	0.00	0				
1981		1	0	2	0	0.00	100				
1982		0	0	0	0	0.00	0				

Table 2 (continued)

Hunting Unit	Year	Hunters		Total Harvest	Hunter-days		Percent Success*	Turkeys per Hunter-day		Percent of Hunters Observing Turkeys		Total Permits**
		Afield			Afield			Hunter-day		Observing Turkeys		
STATE TOTALS	1967	49	11	118	22	0.09	59	52				
	1968	290	31	738	11	0.04	41	310				
	1969	267	13	612	5	0.02	22	276				
	1970				N O S E A S O N							
	1971	215	26	576	11	0.04	38	223				
	1972	269	35	751	12	0.05	39	285				
	1973	135	0	311	0	0.00	10	150				
	1974	112	6	289	5	0.02	22	121				
	1975	97	5	219	5	0.03	29	103				
	1976	74	6	185	8	0.03	32	81				
	1977	99	12	248	12	0.05	39	108				
	1978	101	9	246	10	0.04	42	116				
	1979	90	1	237	1	0.01	8	113				
	1980	35	0	84	0	0.00	17	40				
	1981	60	14	129	23	0.11	53	83				
	1982	80	12	184	16	0.07	62	91				
STATE AVERAGES												
(1967-81)		135	12	339	9	0.04	32	147				

\*Based on the number of hunters bagging one or more turkeys.

\*\*Total permits are sold on a statewide basis and not by unit.

Table 3. Summary of the 1982 fall turkey season.

Data	Blue Mtn.-												STATE TOTALS	
	Pine Valley		Elk Ridge		Boulder Mtns.		East Zion		LaSal		STATE TOTALS		Rep't	Calc
	Rep't	Calc	Rep't	Calc	Rep't	Calc	Rep't	Calc	Rep't	Calc	Rep't	Calc	Rep't	Calc
Permits sold													56	--
No hunts													5	6
Hunters afield	2*	2											44	50
Hunter-days	4	5			43*	49							119	136
Turkeys bagged	0	0			10	11							10	11
Percent success	0	--			23	--							23	--
Turkeys bagged per hunter-day	0	--			0.09	--							0.08	--
Reported crippling loss (loss/100 bagged)	0	--			10	--							10	--
Turkeys observed	0	--			185	--							185	--
Number of hunters who saw turkeys	0	--			20	--							20	--
Percent of hunters who saw turkeys	0	--			47	--							45	--

Projection factor = 1.143

\*1 hunter reported hunting both units (44 total individual hunters afield reported).

Table 4. Summary of Boulder Mountain wild turkey harvest data for fall hunts from 1969-82.

Year	Hunters		Hunter-days		Turkeys Bagged	Percent Success*	Percent Bagging		Turkeys/Hunter-Day	Cripples/100 Bagged	Turkeys Observed	% Hunters Observing Turkeys
	Afield		Afield				2 Turkeys	Turkeys				
1969	45		103		0	0	0	0.00	0	0	0	0
1970	24		77		2	8	0	0.03	0	16	10	10
1971	20		46		0	0	0	0.00	0	0	0	0
1972	7		17		0	0	0	0.00	0	0	0	0
1973**	--		--		--	--	--	--	--	--	--	--
1974**	--		--		--	--	--	--	--	--	--	--
1975	13		36		0	0	0	0.00	0	0	0	0
1976	4		10		0	0	0	0.00	0	0	0	0
1977	2		5		0	0	0	0.00	0	0	0	0
1978	0		0		0	0	0	0.00	0	0	0	0
1979**	--		--		--	--	--	--	--	--	--	--
1980	3		6		0	0	0	0.00	0	0	0	0
1981	0		0		0	0	0	0.00	0	0	0	0
1982**	--		--		--	--	--	--	--	--	--	--

\*Season bag limit from 1968-72 was two turkeys. Percent success was based on successful hunters rather than total turkeys bagged.

\*\*Closed Season.

Table 5. Summary of East Zion wild turkey harvest data for fall hunts from 1969-82.

Year	Hunters		Hunter-days		Turkeys Bagged	Percent Success*	Percent Bagging		Turkeys/Hunter-Day	Cripples/100 Bagged	Turkeys Observed	% Hunters Observing Turkeys
	Afield		Afield				2 Turkeys	Turkeys				
1969	137		374		35	16	10	0.09	19	426	25	
1970	87		203		43	32	16	0.21	5	469	40	
1971	90		229		39	27	16	0.17	6	264	31	
1972	59		154		10	12	4	0.06	12	96	22	
1973**	--		--		--	--	--	--	--	--	--	
1974**	--		--		--	--	--	--	--	--	--	
1975	13		18		6	46	--	0.33	0	36	44	
1976	31		57		13	42	--	0.23	8	137	50	
1977	22		34		5	25	--	0.16	0	33	26	
1978	47		107		6	14	--	0.06	40	130	32	
1979	19		36		3	18	--	0.09	0	50	29	
1980	19		31		10	50	--	0.32	43	97	50	
1981	34		62		12	36	--	0.20	56	136	48	
1982	49		131		11	23	--	0.09	10	185	47	

\*Season bag limit from 1968-72 was two turkeys. Percent success was based on successful hunters rather than total turkeys bagged.

\*\*Closed Season.



Table 6. Summary of LaSal Mountain wild turkey harvest data for fall hunts from 1969-82.

Year	Hunters Afield	Hunter-days Afield	Turkeys Bagged	Percent Success*	Percent			Cripples/ 100 Bagged	Turkeys Observed	% Hunters Observing Turkeys
					Bagging 2 Turkeys	Turkeys/ Hunter-Day	Turkeys Observed			
1969	17	51	1	7	0	0.02	0	40	7	
1970	18	30	3	11	6	0.10	0	15	20	
1971	13	27	5	18	18	0.18	0	25	27	
1972	31	70	2	4	4	0.02	0	63	27	
1973**	--	--	--	--	--	--	--	--	--	
1974	20	6	2	10	--	0.03	100	61	38	
1975	9	33	1	11	--	0.03	0	21	67	
1976	15	49	2	13	--	0.04	0	45	15	
1977	24	78	1	6	--	0.02	0	13	10	
1978	26	93	1	5	--	0.01	0	201	50	
1979	15	33	0	0	--	0.00	0	11	8	
1980	12	33	1	11	--	0.04	0	30	44	
1981	20	48	0	0	--	0.00	0	0	0	
1982**	--	--	--	--	--	--	--	--	--	

\*Season bag limit from 1968-72 was two turkeys. Percent success was based on successful hunters rather than total turkeys bagged.

\*\*Closed Season.

Table 7. Summary of Beaver Mountain wild turkey harvest data for fall hunts from 1970-81.

Year	Hunters Afield	Hunter-days Afield	Turkeys Bagged	Percent Success*	Percent Bagging		Turkeys/ Hunter-Day	Cripples/ 100 Bagged	Turkeys Observed	% Hunters Observing Turkeys
					2	Turkeys				
1970	30	87	7	15	8		0.08	0	48	31
1971	13	24	5	18	18		0.20	0	64	46
1972	6	12	0	0	0		0.00	0	11	40
1973**	--	--	--	--	--		--	--	--	--
1974**	--	--	--	--	--		--	--	--	--
1975	5	13	0	0	--		0.00	0	0	0
1976	5	18	0	0	--		0.00	0	0	0
1977	--	--	--	--	--		--	--	--	--
1978**	--	--	--	--	--		--	--	--	--
1979**	--	--	--	--	--		--	--	--	--
1980**	--	--	--	--	--		--	--	--	--
1981**	--	--	--	--	--		--	--	--	--
1982**	--	--	--	--	--		--	--	--	--

Wild turkeys were transplanted onto the Beaver Mountain during the winter of 1967-68. The first hunting season was held in 1970.

\*Season bag limit from 1968-72 was two turkeys. Percent success was based on successful hunters rather than total turkeys bagged.

\*\*Closed Season.

Table 8. Summary of Pine Valley Mountain wild turkey harvest data for fall hunts from 1970-82.

Year	Hunters		Hunter-days Afield	Turkeys Bagged	Percent Success*	Percent			Turkeys/ Hunter-Day	Cripples/ 100 Bagged	Turkeys Observed	% Hunters Observing Turkeys
	Afield					Bagging 2 Turkeys	Turkeys/ Hunter-Day	Turkeys Observed				
1970	6		21	3	50	0	0.14	33	16	80		
1971	32		87	11	23	12	0.13	22	98	35		
1972	11		19	0	0	0	0.00	0	0	0		
1973**	--		--	--	--	--	--	--	--	--		
1974**	--		--	--	--	--	--	--	--	--		
1975	0		0	0	0	0	0.00	0	0	0		
1976	0		0	0	0	0	0.00	0	0	0		
1977	1		2	0	0	0	0.00	0	0	0		
1978	6		8	0	0	0	0.00	0	4	80		
1979	1		1	0	0	0	0.00	0	0	0		
1980	0		0	0	0	0	0.00	0	0	0		
1981	1		4	0	0	0	0.00	0	5	100		
1982	2		5	0	0	0	0.00	0	0	0		

\*Season bag limit from 1968-72 was two turkeys. Percent success was based on successful hunters rather than total turkeys bagged.

\*\*Closed Season.

Table 9. Summary of Blue Mountain-Elk Ridge\* wild turkey harvest data for the fall hunt, 1974-82.

Year	Hunters		Hunter-days Afield	Turkeys Bagged	Percent Success	Turkeys/ Hunter Day		Cripples/ 100 Bagged	Turkeys Observed	% Hunters	
	Afield									Observing Turkeys	
1974	5		9	1	20	0.11	0	20	20		
1975	6		15	0	0	0.00	0	0	0		
1976	1		2	0	0	0.00	0	0	0		
1977	5		14	1	29	0.09	0	2	25		
1978	6		11	0	0	0.00	0	0	0		
1979	1		1	0	0	0.00	0	0	0		
1980**	--		--	--	--	--	--	--	--	--	
1981**	--		--	--	--	--	--	--	--	--	
1982**	--		--	--	--	--	--	--	--	--	

\*Wild turkeys were initially transplanted onto the Blue Mountains in 1957 and on Elk Ridge in 1959. Those releases failed. Additional releases were made beginning in 1970 on Blue Mountain and 1972 on Elk Ridge with successful results, particularly on Blue Mountain.

\*\*Closed Season.

Table 10. Statewide summary of fall wild turkey harvest statistics, 1963-82.

Year	Permits Sold	Hunters Afield	Hunter-days Afield	Turkeys Bagged	Percent Success**	Turkeys/Hunter-Day	Crippling Loss/100 Bagged	Turkeys Observed	% Hunters Observing Turkeys
1963	297	248	--	75	30	--	15	--	48
1964	229	211	362	81	38	0.22	15	1,158	60
1965	214	207	406	50	24	0.12	8	730	29
1966*	192	187	471	43	23	0.09	7	756	36
1967	146	135	405	40	30	0.10	16	748	48
1968*	368	344	883	183	38	0.21	15	2,321	54
1969	223	210	549	36	11	0.06	19	466	17
1970	197	174	418	58	24	0.14	6	564	31
1971	184	174	444	60	21	0.14	8	451	28
1972	124	118	303	12	7	0.04	10	173	21
1973***	--	--	--	--	--	--	--	--	--
1974	29	26	79	3	12	0.04	33	83	38
1975	58	46	115	7	15	0.06	0	57	26
1976	68	56	136	15	27	0.11	7	182	32
1977	60	53	133	7	15	0.06	0	48	18
1978*	102	88	223	7	9	0.03	33	335	38
1979	46	36	71	3	9	0.05	0	61	19
1980	43	35	69	11	32	0.16	38	127	44
1981	63	55	114	12	22	0.11	56	141	32
1982	56	50	136	11	23	0.08	10	185	47
TOTALS (1963-82)	2,643	2,403	5,181	703	(410)	0.14	(296)	8,401	(666)
AVERAGES (1963-81)	147	134	305	39	22	0.13	16	467	34

\*Some hunters hunted more than one area or failed to designate areas hunted. This accounts for the difference between totals given above and combined tables of separate units in Tables 5, 6 and 7.

\*\*During 1968, the Boulder Mountain and East Zion units had two-bird season limits and the LaSal Mountains a one-bird limit; from 1969 through 1972, all areas had a two-bird limit. Hunter success was based on the number of successful hunters rather than total turkeys bagged.

\*\*\*Closed Season.

# SHARP-TAILED GROUSE

## SUMMARY

The Columbian sharp-tailed grouse is one of four species of grouse native to Utah. Sharptails were formerly abundant in the valley and foothill areas of northern and central Utah. Sharp-tailed grouse habitats were the most attractive areas for agricultural development and grazing. As a result, 'sharp-tail' habitat was directly converted to farmland or was seriously impacted by heavy grazing.

Because of habitat loss, sharptails have been extirpated from most of their former range and are now found only in extreme northern Utah, including Box Elder, Cache, Morgan and Weber counties.

In Utah, sharp-tailed grouse were completely protected from hunting from 1925-1973. Beginning in the early 1970's, field reports from various individuals and observations by Division personnel indicated that sharptails were becoming more numerous in several areas. It was felt, at this time, that limited hunting was justified. Limited hunting was legalized in 1974 and continued through 1979. However, due to a decline in observations during the 1980 spring and summer inventory period, the entire state was closed to hunting sharptails, and remained closed through 1982.

The Division has done fairly extensive fieldwork on sharptails since 1975. This work has centered on locating populations and the associated dancing grounds, evaluating habitat use, examining seasonal migration patterns and monitoring population trends.

Current management of sharptails includes counting of known dancing grounds, searches for new dancing grounds, brood counts and collection of harvest information.

Beginning in 1979, all sharptail hunters were required to obtain a free "Sharp-tailed Grouse Hunting Permit." Questionnaires were sent to all permittees following the season and results were obtained. Harvest figures are not available for the years 1974-1978, but field observations indicate that hunting pressure and harvest were fairly constant during that period and comparable to 1979.

There was no legal harvest of sharp-tailed grouse from 1980 through 1982. Populations have remained down since 1978.

Table 1. Summary of sharp-tailed grouse dancing ground counts, 1975-82.

County	No.	Name	Dancing Ground									
			1975	1976	1977	1978	1979	1980	1981	1982		
Box Elder	1.	West Hills #1 (located 1977)			21	--	12	3	12	0		
	2.	West Hills #2 (located 1977)			7	--	3	1	0	0		
	3.	West Hills #3 (located 1977)			13	--	0	0	0	0		
	4.	Hunsaker's Field (located 1977)			13	16	3	0	0	0		
	5.	Whites Valley (located 1977)			12	--	0	0	0	6		
	6.	North Whites Valley (located 1977)			10	15	--	0	0	0		
	7.	Pocatello Valley #1 (located 1978)				7	4	1	9	19*		
	8.	Pocatello Valley #2 (located 1978)				25	3	6	10	0		
	9.	Pocatello Valley #3 (located 1978)				4	0	0	0	0		
	10.	Pocatello Valley #4 (located 1978)				6	0	0	0	--		
	11.	Ag. Station							3	0		
Cache	1.	Bankhead Well (relocated 1975)	13	6	8	7	2	2	0	0		
	2.	Bexter Ridge (relocated 1975)	12	0	0	--	--	3	5	3		
	3.	Crow Mtn. #1 (located 1979)				0	7	4	6	3		
	4.	Crow Mtn. #2 (located 1979)					6	0	5	0		
	5.	High Creek (located 1981)							7	--		
Morgan	1.	Cottonwood #1 (located 1975)	9	9	14	6	3	--	--			
	2.	Cottonwood #2 (located 1975)	18	9	6	16	25	--	--			
	3.	Deep Creek #2						4	--			
Weber	1.	Monastery (located 1969)	27	10	Active	Active	3	0	0	0		
Total grounds counted			5	5	10	9	15	16	17	15		
Total grouse counted			79	34	104	102	71	24	57	31		
Average number of grouse/ground			15.8	6.8	10.4	11.3	4.7	1.5	3.4	2.1		

\*Counts for Pocatello Valley #1 and #2 were combined.

# WHITE-TAILED PTARMIGAN

## SUMMARY

The white-tailed ptarmigan (Lagopus leucurus) was introduced into the Uinta Mountains of northern Utah in 1976 with the release of birds captured in Colorado. The initial transplant consisted of 22 paired birds released in June 1976. A second release of 35 mixed young and adults was accomplished in September of the same year.

The original two releases of white-tailed ptarmigan were made at a point about one-half mile southeast of Gunsight Pass and one mile east of Kings Peak in Painter Basin of the Uinta River drainage. Subsequent studies have shown that the population in Painter Basin has increased to the point that birds may be at carrying capacity. Breeding territory surveys in 1977 indicated reproduction from transplanted birds and the transplanted birds themselves had survived their first year. Presently, birds are known to exist in Henry's Fork, Yellowstone Basin, Gilbert Basin, Atwood Basin, Beaver Basin, Lake Blanchard, Smith's Fork, and Rainbow Basin. Evidence for existence of birds has been found in Rock Creek, Black's Fork, Garfield Basin, and Lake Fork. Presently, ptarmigan are believed to be distributed from Holiday Park (Weber River drainage) on the west to Greendale (Flaming Gorge) on the east. Both sightings were made in winter at unusually low elevations (7,800 ft. & 7,000 ft.).

This successful transplant was the result of a cooperative effort of the Utah Division of Wildlife Resources, the Ashley and Wasatch National Forests of the U. S. Forest Service, and the Colorado Division of Wildlife.

Surveys on the ptarmigan population will continue with emphasis on documenting habitat expansion. Areas of emphasis will include Samuels Lake in the Uinta River drainage to Deadman Lake in the Dry Fork drainage. Two survey techniques will be used. A breeding territory survey will be conducted from mid- to late June. The brood survey will be conducted from mid- to late August. The technique consists of returning to areas where birds were located in the June survey and searching intensively in likely brood habitat with trained hunting dogs. Chicks will be captured, weighed, banded, and primary molt will determine approximate hatching date. Results of the last 6 years of survey data are located in Tables 1 and 2.



The ptarmigan population has now been subjected to a wide range of weather extremes. The winter of 1976-77 was extremely dry, cold and snowfree, whereas the 1978-79 winter had above average snowfall and a late spring thaw. This was followed (1979-80) by a near record late snow pack and extraordinarily dry summer. Accumulated snowfall was considerably less than normal during the winter of 1980-81 with abundant breeding territories available during the June survey.

The 1982 breeding season was the worst on record. Reproductive success was extremely poor due to record late snowpack on breeding areas. In spite of this, indications were that survival of adults remained good. Painter Basin which consistently had produced broods yielded no known broods during 1982. If the ptarmigan survive these extreme conditions it is likely that their population has become permanent and self-sustaining.

#### Hunter Success

Forty-eight hunters obtained permits to hunt ptarmigan in Utah for the first time. An estimated 19 actually hunted with no birds reported killed. This poor success was due to a couple of factors. On Saturday, September 11, opening day, it was snowing heavily with dense fog. Weather conditions remained poor through Monday the 13th with accumulating snow depths. Hunting activity was sharply curtailed on Saturday and Sunday in Henry's Fork Basin and by Monday, all had gone without hunting.

In addition, as previously mentioned, reproductive success was extremely poor due to the late spring. Even if weather conditions had been good on opening weekend it is likely that hunter success would have been disappointing because the extremely poor hatch would have substantially reduced the numbers of birds available to hunters. Likewise, the males and non-breeding or unsuccessful breeding females would be essentially at inaccessible high elevations.

Table 1. Summary of white-tailed ptarmigan breeding territories (pairs), 1977-82.

County	Location	(6/20-23)	(6/12-19)	(6/18-24)	(6/12-17)	(6/12-14)	(6/16-17)
		1977	1978	1979	1980	1981	1982
Summit	Lake Blanchard					2	
Duchesne	Painter Basin	7 <sup>1</sup>	10 <sup>2</sup>				
Duchesne	Gilbert Basin		2				
Duchesne	Atwood Basin						
Summit	Henry's Fork			4			
Summit	Beaver Creek			3	0		0
Summit	Smith's Fork				1		
Duchesne	Yellowstone River				2		
Uintah	Leidy Peak				0 <sup>3</sup>		

<sup>1</sup>Three territorial males were yearling birds, the result of successful reproduction by released birds in 1976. Two were spring-released birds and two were fall-released.

<sup>2</sup>An additional 4 males and 1 female were located. Birds from the June 1976 transplant are well represented in the population while only two September released birds have been located. Recruitment from the 1976 and 1977 nesting seasons was evident in the 1978 population.

<sup>3</sup>A sighting of ptarmigan was reported by a hunter in October 1979. Division Biologists reported droppings at the base of Leidy in the willow on June 25, 1981.

Table 2. Ptarmigan summer inventory, 1977-82.

Area: Statistics	D A T E					
	8/15-19/77	8/13-19/78	8/14-24/79	8/17-29/80	8/18-31/81	8/17-30/82
<b>Painter Basin</b>						
n	7	7	7	7	12	0 <sup>3</sup>
mean brood	4.00	4.71	3.29	4.71	3.67	
young/100 adult hens	400	413	329	471	314	
hens w/o broods	0	1	0	0	2	
adult males	3	5	5	0	14	
<b>Henry's Fork</b>						
n		0	1	0	4	0
mean brood			4.00		4.50	
young/100 adult hens			400		450	
hens w/o broods			0		0	
adult males			1		0	
<b>Yellowstone</b>						
n		0	0	0	4	4
mean brood					4.50	4.25
young/100 adult hens					450	--
hens w/o broods					0	--
adult males					0	--
<b>Smith's Fork</b>						
n		0	0	0	0	0
mean brood			0			
young/100 adult hens			0			
hens w/o broods			0			
adult males			2			
<b>Atwood Basin</b>						
n			1	1		
mean brood			4.00	5.00		
young/100 adult hens			400	500		
hens w/o broods			0	0		
adult males			3	0		
<b>Little E. Fork - Black's Fork</b>						
n			0			
Mean brood						
young/100 adult hens						
hens w/o broods						
adult males						

Table 2. (continued)

Area: Statistics	D A T E					
	8/15-19/77	8/13-19/78	8/14-24/79	8/17-29/80	3/18-31/81	8/17-30/82
Rainbow Basin						
n				1		
mean brood				4.0		
young/100 adult hens				400		
hens w/o brood				0		
adult males				0		
Gilbert Basin						
n			3	2		
mean brood			5.00	5.00		
young/100 adult hens			500	500		
hens w/o broods			0	0		
adult males			3	0		
Samuel's Draw						
n						1
mean brood						4.00
young/100 adult hens						400
hens w/o broods						0
adult males						0
East F. Black's Fork						
n				0		
mean brood						
young/100 adult hens						
hens w/o broods						
adult males						
Lake Fork River						
n				0		
TOTAL						
n	7	7	12 <sup>1</sup>	11 <sup>2</sup>	20	5
mean brood	4.00	4.71	4.50	4.73	4.00	4.20
young/100 adult hens	400	413	450	473	364	
hens w/o brood	0	1	0	0	2	
adult males	3	5	18	0	14	
Total birds observed	38	46	84	63	116	

<sup>1</sup>Not included is observation of 2 hens with brood from Leidy Peak, some 43 miles distant from release site.

<sup>2</sup>Considerably more time spent this year than in previous years.

<sup>3</sup>After 4 days of searching.

Table 3. Ptarmigan hatching chronology by year, 1977-82.

Date Year	Sample Size	Mean Hatching Date
1977		
1978	39	7-25
1979	21	7-13
1980	24	7-20
1981	27	7-10
1982	10	7-12 to 24

Table 4. Summary of the 1982 ptarmigan season.

Data	Henry's Fk.		Blacks Fk.		Smith's Fork		Uintah Riv.		Other		STATE TOTALS	
	Rep't	Calc	Rep't	Calc	Rep't	Calc	Rep't	Calc	Rep't	Calc	Rep't	Calc
Permits issued											48	--
No hunts											14	29
Hunters afield	3	--	3	--	(2)	--	3(1)	--	1	--	10	21
Hunter-days	6	--	5	--	(4)	--	3	--	2	--	16	33
Ptarmigan bagged	0	--	0	--	0	--	0	--	0	--	0	0
Percent success	--	--	--	--	--	--	--	--	--	--	--	--
Ptarmigan bagged per hunter-day	0.00		0.00		0.00		0.00		0.00		0.00	0.00
Reported crippling loss (loss/100 bagged)	0		0		0		0		0		0	0
Ptarmigan observed	0		0		0		0		4*		0	0
Number of hunters who saw ptarmigan	0		0		0		0		1		1	1
Percent of hunters who saw ptarmigan	--		--		--		--		--		0	0

Projection factor = 2.087

( ) Hunted Henry's Fork the same days - not added to total.

\*Sighting not verified reliable.

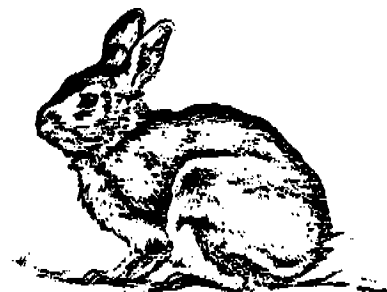
# RABBITS AND HARES

## SUMMARY

### Cottontail Rabbits

A below average breeding population level for 1982 was indicated by the 1981 harvest statistics.

Summer roadside counts also indicated a decreased population density, although the Northeastern and Southeastern regions showed an increase. Harvest statistics indicated 55 percent of the harvest was from the Northeastern and Southeastern regions, with a total harvest of 156,696 cottontails by 26,714 hunters afield.



### Snowshoe Hares



The 1982 snowshoe hare hunting season was the eighth held since the Legislature provided protected status to this species in 1975.

Harvest statistics for 1982 indicated increased hunter participation and hunter success. This increase may reflect an actual trend or it could be the result of increased misidentification of whitetailed jackrabbits. Although efforts have been made to educate hunters in the identification of the snowshoe hare and the whitetailed jackrabbit, it is still a problem which can bias the snowshoe data.

## COTTONTAIL RABBIT

### Roadside Counts

Results of the annual roadside counts for 1982 are shown in Table 1 of this section. The trend of cottontails observed per mile and young per 100 adults since 1972 is shown in Tables 2 and 3, respectively. Indices for 1982 compared to 1981 and the 10-year average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Total miles driven	2,102	-13	-17
Total cottontails counted	1,111	-10	+22
Cottontails observed per mile	0.53	+4	+51
Young observed per 100 adults	78	-33	-29

A below average breeding population for 1982 was indicated by 1981 harvest statistics. Indicated production, likewise, was well below 1981 and 29 percent below the average.

The cottontail per mile index was down in all regions except the Northeastern and Southeastern but was 51 percent above the average.

### Harvest

#### Hunter Questionnaire

Results of the 1982 hunter questionnaire are found in Table 4. Trends of cottontails bagged per hunter-day, percent of harvest and percent of pressure (hunter-days) by county since 1976 are found in Tables 5-7. Trends of statewide harvest statistics are found in Table 8 and Figure 2. Results of the 1982 season compared to 1981 and the 15-year average follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Cottontail hunters	26,714	+3	-2
Cottontail harvest	156,696	+5	-19
Hunter-days afield	105,644	+1	-8
Cottontails per hunter-day	1.48	+3	-10
Cottontails per hunter	5.87	+2	-15

Total harvest, increased from 1981 as a result of increased hunters and hunter-days afield. Total harvest however, remains below (19 percent) average. Success also remained 10 percent below average, indicating a somewhat reduced population of cottontails.



### Field Bag Checks

Results of the survey for 1982 are shown in Table 9. Trends of hunter success as determined by bag checks are shown in Table 10. Following is a comparison of the 1982 field bag check data to 1981 and the average.

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Total hunters checked	156	+71	-61
Total hours hunted	303	+43	-73
Cottontails per hunter (complete hunts)	1.99	+31	+5
Cottontails bagged per 100 hours	81	+65	+47
Hours per hunter-day (complete hunts)	2.3	-39	-30
Hours per cottontail bagged	1.2	-52	-43

Field bag check data was limited to the Northeastern and Southeastern regions. Data from other regions was not obtained.

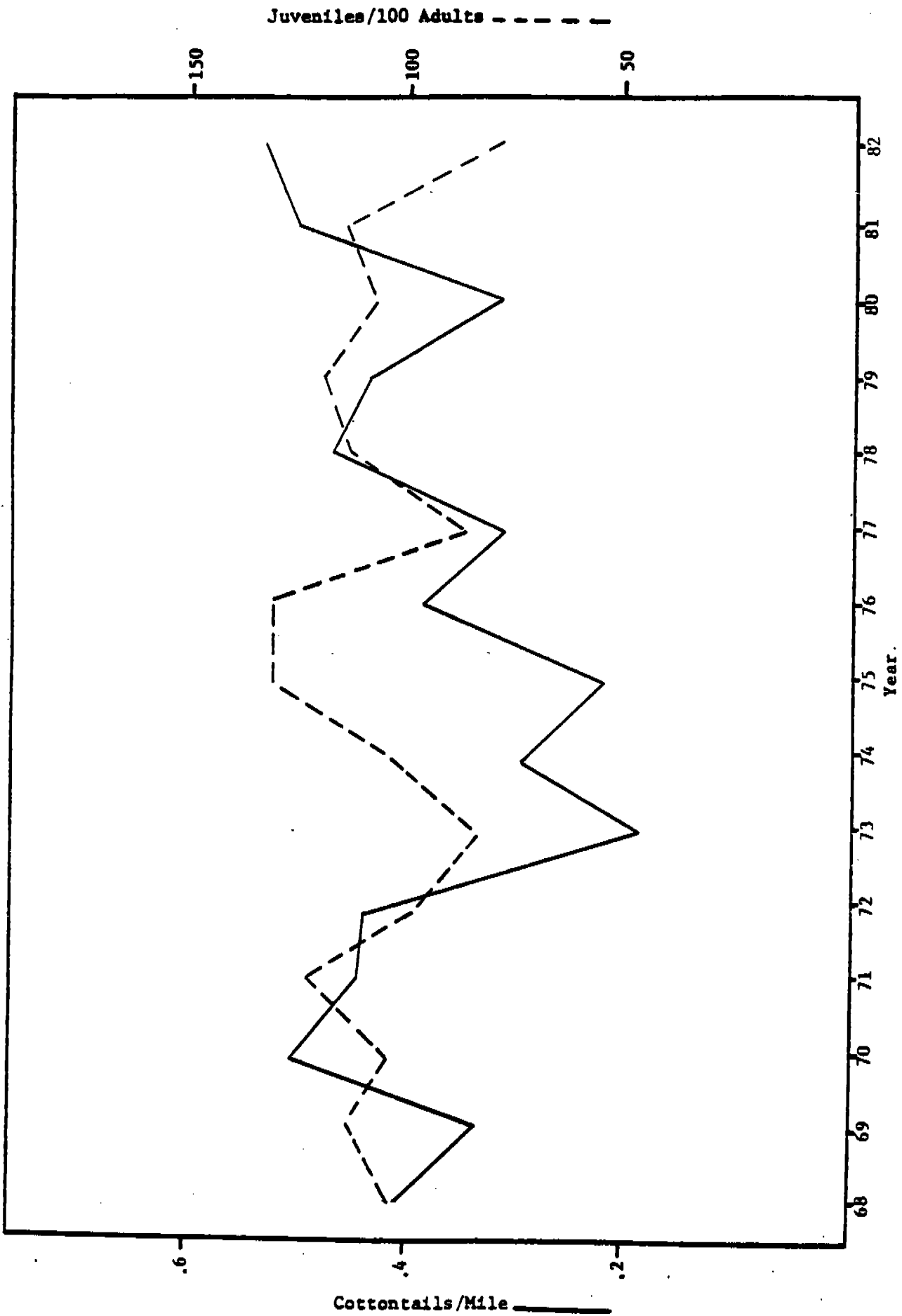


Figure 1. Cottontail Rabbit Population Indexes Trend.

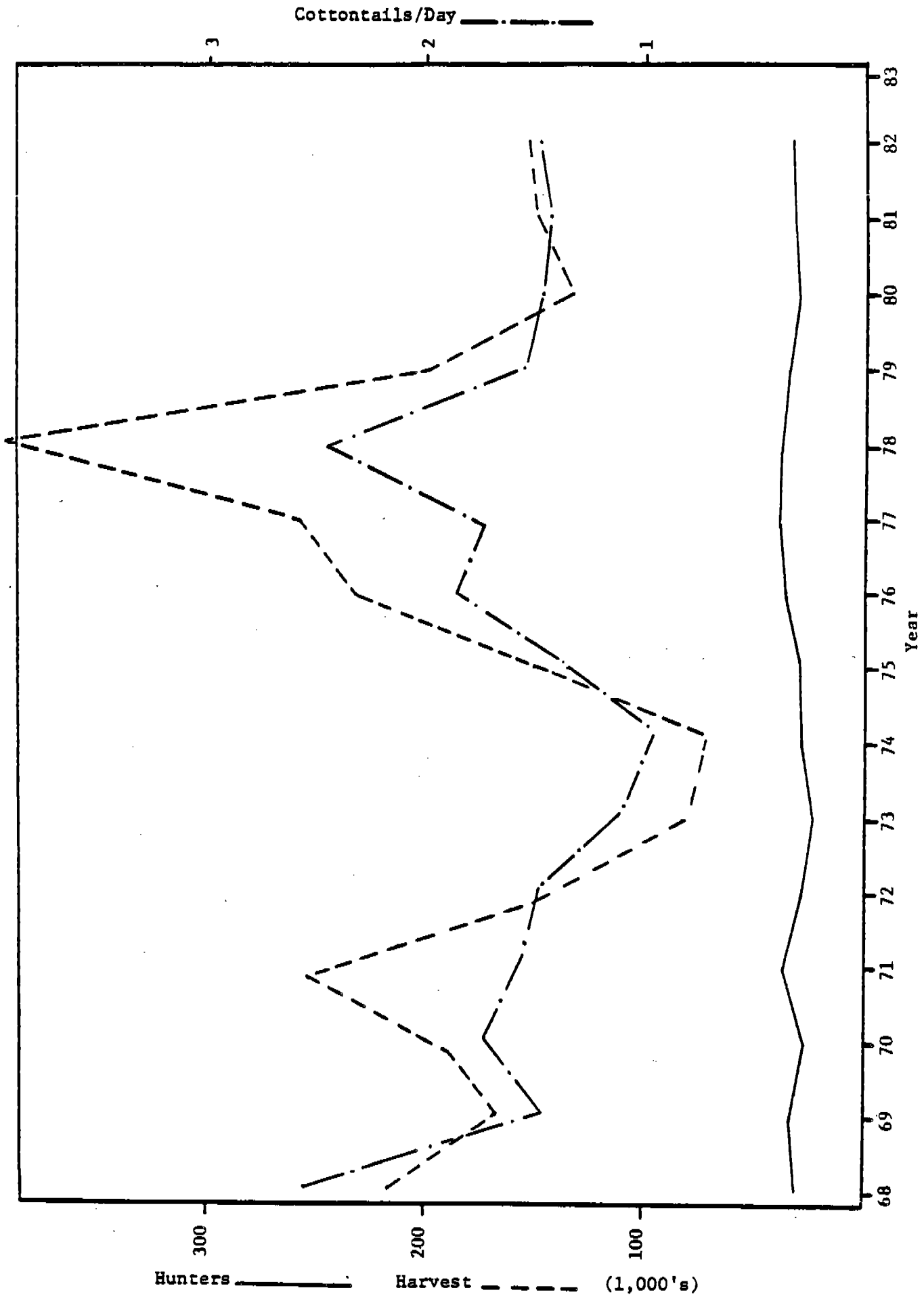


Figure 2. Cottontail Rabbit Harvest Trend

Table 1. Cottontail rabbit summer inventory summary, 1982.

Region and County	Miles Driven	Rabbits Observed				Young Per 100 Adults	Rabbits Per Mile
		Adults	Young	Unclass.	Total		
<u>Northern Region</u>							
Box Elder	150	0	0	1	1	--	0.01
Cache	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--
Rich	90	8	5	1	14	63	0.16
Summit	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>240</b>	<b>8</b>	<b>5</b>	<b>2</b>	<b>15</b>	<b>63</b>	<b>0.06</b>
<u>Central Region</u>							
Juab	60	15	8	0	23	53	0.38
Salt Lake	--	--	--	--	--	--	--
Sanpete	90	23	48	0	71	209	0.78
Tooele	90	5	4	0	9	80	0.10
Utah	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	<b>240</b>	<b>43</b>	<b>60</b>	<b>0</b>	<b>103</b>	<b>140</b>	<b>0.43</b>
<u>Southern Region</u>							
Beaver	92	6	5	0	11	83	0.12
Garfield*	90	16	6	3	25	38	0.27
Iron	60	7	4	0	11	57	0.18
Kane	--	--	--	--	--	--	--
Millard	120	17	16	1	34	94	0.28
Piute	120	0	0	15	15	--	0.13
Sevier	60	9	3	4	16	33	0.27
Washington	180	18	27	12	57	150	0.32
Wayne	90	14	48	0	62	343	0.69
<b>REGIONAL TOTALS</b>	<b>722</b>	<b>71</b>	<b>103</b>	<b>32</b>	<b>206</b>	<b>145</b>	<b>0.29</b>
<u>Northeastern Region</u>							
Daggett	118	20	28	5	53	140	0.45
Duchesne	90	130	48	27	205	37	2.28
Uintah	90	115	50	12	177	44	1.97
<b>REGIONAL TOTALS</b>	<b>298</b>	<b>265</b>	<b>126</b>	<b>44</b>	<b>435</b>	<b>48</b>	<b>1.46</b>
<u>Southeastern Region</u>							
Carbon	90	3	2	3	8	66	0.10
Emery	212	14	6	18	38	43	0.18
Grand	120	27	40	13	80	148	0.67
San Juan	180	117	84	25	226	72	1.26
<b>REGIONAL TOTALS</b>	<b>602</b>	<b>161</b>	<b>132</b>	<b>59</b>	<b>352</b>	<b>82</b>	<b>0.58</b>
<b>STATE TOTALS</b>	<b>2,102</b>	<b>548</b>	<b>426</b>	<b>137</b>	<b>1,111</b>	<b>78</b>	<b>0.53</b>

\*Includes data from Southeastern Region.

Table 2. Summary of cottontail rabbits observed per mile during summer inventory, 1972-82.

Region and County	Year											Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<b>Northern Region</b>												
Box Elder	0.37	0.06	1.01	0.32	0.72	0.97	0.29	0.33	--	0.37	0.01	
Cache	0.07	--	--	--	0.00	--	0.05	--	--	--	--	
Davis	--	--	--	--	--	--	--	--	--	--	--	
Morgan	--	0.14	0.10	0.02	0.17	0.16	0.10	--	--	--	--	
Rich	0.11	0.14	0.04	0.16	0.46	0.26	0.47	0.30	0.11	0.13	0.16	
Summit	0.13	--	--	--	--	--	--	--	--	--	--	
Weber	--	--	--	--	--	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	<b>0.25</b>	<b>0.09</b>	<b>0.36</b>	<b>0.19</b>	<b>0.45</b>	<b>0.59</b>	<b>0.30</b>	<b>0.32</b>	<b>0.11</b>	<b>0.26</b>	<b>0.06</b>	<b>0.29</b>
<b>Central Region</b>												
Juab	0.14	0.13	--	0.07	0.08	0.18	0.19	0.23	0.29	1.12	0.38	
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	
Sanpete	0.72	0.33	0.23	0.18	0.36	0.37	0.86	1.15	1.06	1.29	0.78	
Tooele	0.14	0.02	0.06	0.04	0.16	0.19	0.21	0.51	0.26	0.13	0.10	
Utah	--	--	--	--	--	--	--	--	--	--	--	
Wasatch	--	--	--	--	--	--	--	--	--	--	--	
<b>REGIONAL TOTALS</b>	<b>0.33</b>	<b>0.18</b>	<b>0.14</b>	<b>0.09</b>	<b>0.20</b>	<b>0.25</b>	<b>0.43</b>	<b>0.64</b>	<b>0.54</b>	<b>0.85</b>	<b>0.43</b>	<b>0.37</b>
<b>Southern Region</b>												
Beaver	0.36	0.29	0.33	0.04	0.20	0.11	0.22	0.22	0.06	0.19	0.12	
Garfield	0.29	0.12	0.14	0.28	0.39	0.15	0.13	0.15	--	--	0.27	
Iron	0.58	0.00	0.06	0.09	0.21	0.36	0.66	0.45	0.45	--	0.18	
Kane	0.60	0.32	0.26	0.48	0.49	0.32	0.23	0.34	--	0.69	--	
Millard	0.29	0.11	0.10	0.07	0.17	0.14	0.42	0.52	0.18	0.56	0.28	
Piute	0.00	--	0.02	0.07	0.08	0.00	0.01	0.02	--	0.10	0.13	
Sevier	0.41	0.10	0.18	0.11	0.26	0.38	0.90	0.55	0.27	0.83	0.27	
Washington	1.16	0.57	1.30	0.56	0.32	0.21	0.16	0.35	0.10	0.24	0.32	
Wayne	0.07	0.04	0.06	0.03	0.17	0.09	0.48	0.56	0.54	0.49	0.69	
<b>REGIONAL TOTALS</b>	<b>0.48</b>	<b>0.19</b>	<b>0.32</b>	<b>0.20</b>	<b>0.27</b>	<b>0.19</b>	<b>0.35</b>	<b>0.37</b>	<b>0.22</b>	<b>0.45</b>	<b>0.29</b>	<b>0.30</b>
<b>Northeastern Region</b>												
Daggett	0.73	0.50	0.24	0.24	0.68	0.25	2.77	1.58	0.40	0.32	0.45	
Duchesne	0.24	0.14	0.29	0.67	1.00	1.21	1.42	0.24	0.42	1.78	2.28	
Uintah	0.97	0.14	0.19	0.32	1.36	0.68	1.22	0.53	0.27	0.48	1.97	
<b>REGIONAL TOTALS</b>	<b>0.60</b>	<b>0.26</b>	<b>0.24</b>	<b>0.43</b>	<b>0.98</b>	<b>0.67</b>	<b>1.75</b>	<b>0.84</b>	<b>0.36</b>	<b>0.81</b>	<b>1.46</b>	<b>0.69</b>
<b>Southeastern Region</b>												
Carbon	0.20	0.46	0.15	0.18	0.18	0.10	0.12	0.12	0.15	0.12	0.10	
Emery	0.30	0.06	0.08	0.04	0.27	0.26	0.21	0.28	0.16	0.41	0.18	
Grand	0.66	0.07	0.14	0.18	0.22	0.19	0.33	0.21	0.11	0.32	0.67	
San Juan	0.48	--	0.58	0.42	0.67	0.31	0.31	0.20	0.60	0.42	1.26	
<b>REGIONAL TOTALS</b>	<b>0.45</b>	<b>0.19</b>	<b>0.28</b>	<b>0.22</b>	<b>0.35</b>	<b>0.21</b>	<b>0.23</b>	<b>0.21</b>	<b>0.30</b>	<b>0.36</b>	<b>0.58</b>	<b>0.28</b>
<b>STATE TOTALS</b>	<b>0.43</b>	<b>0.18</b>	<b>0.29</b>	<b>0.22</b>	<b>0.38</b>	<b>0.31</b>	<b>0.47</b>	<b>0.44</b>	<b>0.31</b>	<b>0.51</b>	<b>0.53</b>	<b>0.35</b>

Table 3. Summary of cottontail rabbits young per 100 adults, 1972-82.

Region and County	Year											Average 1972-81
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
<u>Northern Region</u>												
Box Elder	62	100	173	144	281	103	126	100	--	77	--	--
Cache	0	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	0	--	200	100	--	--	--	--	--	--
Rich	100	50	0	56	100	54	130	60	67	43	63	63
Summit	14	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	56	73	145	120	222	96	137	85	67	71	63	107
<u>Central Region</u>												
Juab	117	100	--	67	20	100	44	13	78	102	53	53
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	148	142	50	38	256	200	217	312	352	197	209	209
Tooele	100	0	67	100	133	129	125	100	71	200	80	80
Utah	--	--	--	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	135	121	53	54	160	154	161	167	194	147	140	135
<u>Southern Region</u>												
Beaver	61	92	11	0	--	33	70	63	40	55	83	83
Garfield	86	57	56	77	103	71	64	250	--	--	38	38
Iron	100	0	100	0	70	93	33	44	23	--	57	57
Kane	86	44	200	160	87	65	56	82	--	106	--	--
Millard	271	32	82	88	63	67	88	190	96	170	94	94
Piute	--	--	0	20	75	--	--	--	--	--	--	--
Sevier	450	200	183	44	67	126	147	171	350	--	33	33
Washington	11	81	98	212	118	57	400	94	--	123	150	150
Wayne	50	200	50	0	250	225	282	214	308	287	343	343
<b>REGIONAL TOTALS</b>	64	67	92	120	89	86	96	139	114	184	145	105
<u>Northeastern Region</u>												
Daggett	121	63	87	77	152	48	98	123	58	104	140	140
Duchesne	78	160	146	258	177	66	167	200	61	42	37	37
Uintah	141	100	114	211	151	134	153	82	160	176	44	44
<b>REGIONAL TOTALS</b>	120	87	114	198	159	78	125	118	73	67	48	114
<u>Southeastern Region</u>												
Carbon	145	250	117	227	85	112	118	230	133	83	66	66
Emery	125	16	40	0	58	30	111	25	70	97	43	43
Grand	297	33	62	47	54	100	77	50	250	137	148	148
San Juan	111	--	140	150	179	120	35	30	68	105	72	72
<b>REGIONAL TOTALS</b>	180	142	118	124	112	84	71	46	79	103	82	106
<b>STATE TOTALS</b>	99	86	105	132	132	89	112	121	107	116	78	110

Table 4. Summary of cottontail rabbit hunter success and distribution of harvest and hunting pressure by region and county, 1982.

Region and County	Sample Size*	Hunter-days Afield	Cottontails Bagged	Cottontails/Hunter-day	% of Pressure	% of Harvest
<b>NORTHERN REGION</b>						
BOX ELDER	218	8,490	9,486	1.12	8.04	6.05
CACHE	25	934	567	0.61	0.88	0.36
DAVIS	7	153	0	0.00	0.15	0.00
MORGAN	23	628	597	0.95	0.59	0.38
RICH	14	551	567	1.03	0.52	0.36
SUMMIT	31	1,164	1,011	0.87	1.10	0.65
WEBER	18	858	597	0.70	0.81	0.38
<b>REGIONAL TOTALS</b>	<b>336</b>	<b>12,782</b>	<b>12,828</b>	<b>1.00</b>	<b>12.10</b>	<b>8.19</b>
<b>CENTRAL REGION</b>						
JUAB	138	6,314	9,027	1.43	5.98	5.76
SALT LAKE	38	1,593	1,701	1.07	1.51	1.09
SANPETE	47	1,701	1,471	0.86	1.61	0.94
TOOELE	296	13,992	15,724	1.12	13.25	10.04
UTAH	184	7,555	5,563	0.74	7.15	3.55
WASATCH	20	1,440	1,149	0.80	1.36	0.73
<b>REGIONAL TOTALS</b>	<b>723</b>	<b>32,599</b>	<b>34,637</b>	<b>1.06</b>	<b>30.86</b>	<b>22.10</b>
<b>SOUTHERN REGION</b>						
BEAVER	19	597	1,195	2.00	0.57	0.76
GARFIELD	12	536	996	1.86	0.51	0.64
IRON	33	1,655	1,272	0.77	1.57	0.81
KANE	5	291	536	1.84	0.28	0.34
MILLARD	105	4,904	7,739	1.58	4.64	4.94
PIUTE	6	321	122	0.38	0.30	0.08
SEVIER	34	1,425	1,241	0.87	1.35	0.79
WASHINGTON	42	3,065	4,689	1.53	2.90	2.99
WAYNE	26	1,088	1,532	1.41	1.03	0.98
<b>REGIONAL TOTALS</b>	<b>282</b>	<b>13,885</b>	<b>19,326</b>	<b>1.39</b>	<b>13.14</b>	<b>12.33</b>
<b>NORTHEASTERN REGION</b>						
DAGGETT	21	1,455	2,007	1.38	1.38	1.28
DUCHESNE	152	10,912	23,663	2.17	10.33	15.10
UINTAH	168	10,544	23,035	2.18	9.98	14.70
<b>REGIONAL TOTALS</b>	<b>341</b>	<b>22,912</b>	<b>48,707</b>	<b>2.13</b>	<b>21.69</b>	<b>31.08</b>
<b>SOUTHEASTERN REGION</b>						
CARBON	119	9,716	15,632	1.61	9.20	9.98
EMERY	73	6,207	8,567	1.38	5.88	5.47
GRAND	29	1,793	4,367	2.44	1.70	2.79
SAN JUAN	42	3,095	9,057	2.93	2.93	5.78
<b>REGIONAL TOTALS</b>	<b>263</b>	<b>20,813</b>	<b>37,626</b>	<b>1.81</b>	<b>19.70</b>	<b>24.01</b>
UNKNOWN	28	2,651	3,571	1.35	2.51	2.28
<b>STATE TOTALS</b>	<b>1,973</b>	<b>105,644</b>	<b>156,696</b>	<b>1.48</b>	<b>100.00</b>	<b>100.00</b>

\*Total hunter trips from questionnaire returns.

Table 5. Summary of cottontail rabbits bagged per hunter-day by region and county, 1976-82.

Region and County	Year						
	1976	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>							
Box Elder	1.63	1.87	2.56	1.84	1.92	1.99	1.12
Cache	1.30	1.28	1.59	1.22	1.35	0.68	0.61
Davis	2.05	1.83	0.39	2.00	0.90	0.07	0.00
Morgan	0.71	1.76	1.74	1.10	1.09	1.46	0.95
Rich	1.50	2.28	3.77	1.94	1.79	1.87	1.03
Summit	0.96	0.78	2.32	1.20	0.56	1.21	0.87
Weber	0.85	0.95	1.73	0.83	0.58	1.10	0.70
REGIONAL TOTALS	1.40	1.67	2.43	1.60	1.61	1.65	1.00
<u>Central Region</u>							
Juab	1.77	1.54	2.90	2.23	2.15	1.73	1.43
Salt Lake	1.35	1.20	1.55	0.96	0.56	0.71	1.07
Sanpete	1.27	0.82	1.50	1.46	0.99	1.44	0.86
Tooele	1.56	1.75	2.40	1.89	1.69	1.29	1.12
Utah	1.26	1.33	1.86	1.06	1.12	0.99	0.74
Wasatch	0.89	1.25	1.42	1.00	0.80	0.82	0.80
REGIONAL TOTALS	1.41	1.46	2.15	1.57	1.51	1.26	1.06
<u>Southern Region</u>							
Beaver	2.09	1.78	2.25	1.45	0.93	1.79	2.00
Garfield	1.02	0.50	0.80	2.12	1.86	1.05	1.86
Iron	1.19	1.08	1.48	1.74	1.27	1.03	0.77
Kane	1.00	2.55	2.80	2.01	1.39	0.81	1.84
Millard	1.67	1.78	1.84	1.82	1.70	1.57	1.58
Piute	0.60	2.06	2.06	1.27	1.53	1.52	0.38
Sevier	1.11	1.52	1.55	1.40	1.22	0.97	0.87
Washington	1.05	0.95	0.93	1.33	0.95	1.03	1.53
Wayne	2.17	2.88	1.42	1.76	1.48	2.69	1.41
REGIONAL TOTALS	1.45	1.79	1.54	1.64	1.35	1.32	1.39
<u>Northeastern Region</u>							
Daggett	3.18	2.10	3.25	3.30	1.50	1.12	1.38
Duchesne	3.31	2.92	3.67	1.49	1.39	1.80	2.17
Uintah	3.02	2.50	4.33	1.64	1.16	1.41	2.18
REGIONAL TOTALS	1.74	1.24	2.11	1.20	1.30	1.53	2.13
<u>Southeastern Region</u>							
Carbon	1.54	1.19	2.26	1.06	1.05	1.42	1.61
Emery	1.59	1.32	1.69	1.26	1.36	1.30	1.38
Grand	2.78	1.23	2.12	1.27	1.62	1.56	2.44
San Juan	1.42	1.05	2.81	1.42	1.90	1.87	2.93
REGIONAL TOTALS	1.74	1.24	2.11	1.20	1.30	1.53	1.81
Unknown counties	1.00	1.86	0.83	1.46	1.00	2.60	1.35
Mixed counties	1.49	1.56	0.00	1.25	5.00	1.11	0.00
STATE TOTALS	1.86	1.71	2.46	1.57	1.47	1.44	1.48



Table 6. Percentage distribution of cottontail rabbit harvest by region and county, 1976-82.

Region and County	Year						
	1976	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>							
Box Elder	7.22	11.69	11.50	13.95	20.87	14.87	6.05
Cache	1.21	0.97	0.73	1.07	0.83	0.72	0.36
Davis	0.95	0.25	0.09	0.37	0.12	0.03	0.00
Morgan	0.55	2.99	2.74	1.90	0.84	0.82	0.38
Rich	1.14	2.41	4.96	2.89	1.75	0.80	0.36
Summit	0.77	1.08	2.88	1.95	1.16	1.66	0.65
Weber	0.59	0.69	0.67	0.61	0.40	0.62	0.38
<b>REGIONAL TOTALS</b>	<b>12.44</b>	<b>20.07</b>	<b>23.58</b>	<b>22.73</b>	<b>25.96</b>	<b>19.50</b>	<b>8.19</b>
<u>Central Region</u>							
Juab	3.77	4.22	5.16	7.79	9.35	6.79	5.76
Salt Lake	0.72	0.62	1.19	1.01	0.37	0.41	1.09
Sanpete	0.97	1.37	1.06	3.51	2.76	1.31	0.94
Tooele	7.12	10.38	10.17	16.48	21.32	10.58	10.04
Utah	6.12	6.94	6.77	7.40	6.01	5.63	3.55
Wasatch	1.05	0.89	0.80	1.18	0.88	0.59	0.73
<b>REGIONAL TOTALS</b>	<b>19.75</b>	<b>24.42</b>	<b>25.15</b>	<b>37.37</b>	<b>40.69</b>	<b>25.32</b>	<b>22.10</b>
<u>Southern Region</u>							
Beaver	1.68	0.46	0.89	0.47	1.43	0.72	0.76
Garfield	0.53	0.10	0.26	0.63	0.35	1.14	0.64
Iron	1.37	0.47	1.14	1.83	1.01	1.79	0.81
Kane	0.02	1.41	0.76	1.19	0.85	0.66	0.34
Millard	2.90	2.44	1.66	4.37	5.00	5.50	4.94
Piute	0.03	0.37	0.24	0.74	0.61	0.46	0.08
Sevier	0.36	1.02	1.15	2.14	1.84	1.94	0.79
Washington	2.47	0.70	0.93	1.70	1.12	2.06	2.99
Wayne	2.33	2.40	0.61	1.84	1.19	2.77	0.98
<b>REGIONAL TOTALS</b>	<b>11.70</b>	<b>9.37</b>	<b>7.63</b>	<b>14.91</b>	<b>13.39</b>	<b>17.04</b>	<b>12.33</b>
<u>Northeastern Region</u>							
Daggett	3.12	1.42	4.71	4.13	0.84	0.53	1.28
Duchesne	18.80	11.01	9.95	4.97	3.86	7.92	15.10
Uintah	15.38	14.17	16.60	5.82	3.40	7.13	14.70
<b>REGIONAL TOTALS</b>	<b>37.30</b>	<b>26.60</b>	<b>13.26</b>	<b>14.92</b>	<b>8.10</b>	<b>15.58</b>	<b>31.08</b>
<u>Southeastern Region</u>							
Carbon	6.05	5.41	4.84	3.46	4.22	6.96	9.98
Emery	4.74	5.60	3.51	3.69	4.05	4.68	5.47
Grand	4.14	0.54	1.32	0.62	1.68	2.96	2.79
San Juan	1.40	0.75	2.13	1.47	1.75	6.93	5.78
<b>REGIONAL TOTALS</b>	<b>16.33</b>	<b>12.31</b>	<b>11.79</b>	<b>9.23</b>	<b>11.70</b>	<b>21.53</b>	<b>24.01</b>
Unknown counties	0.01	2.77	0.59	0.14	0.03	0.19	2.28
Mixed counties	2.08	4.47	0.00	0.70	0.13	0.84	0.00
<b>STATE TOTALS</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 7. Percentage distribution of cottontail rabbit hunting pressure by region and county, 1976-82.

Region and County	Year						
	1976	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>							
Box Elder	8.27	10.69	11.05	11.92	15.90	10.75	8.04
Cache	1.75	1.29	1.13	1.37	0.90	1.50	0.88
Davis	0.86	0.23	0.58	0.29	0.20	0.55	0.15
Morgan	1.47	2.91	3.87	2.70	1.13	0.80	0.59
Rich	1.42	1.81	3.24	2.35	1.43	0.62	0.52
Summit	1.51	2.37	3.06	2.55	3.01	1.97	1.10
Weber	1.29	1.23	0.95	1.16	1.02	0.80	0.81
<b>REGIONAL TOTALS</b>	<b>16.57</b>	<b>20.53</b>	<b>23.89</b>	<b>22.34</b>	<b>23.58</b>	<b>17.00</b>	<b>12.10</b>
<u>Central Region</u>							
Juab	3.99	4.70	4.37	5.47	6.39	5.65	5.98
Salt Lake	0.99	0.89	1.89	1.66	0.98	0.84	1.51
Sanpete	1.42	2.85	1.73	3.79	4.10	1.32	1.61
Tooele	8.53	10.13	10.44	13.67	18.48	11.80	13.25
Utah	9.07	8.96	8.93	10.99	7.87	8.14	7.15
Wasatch	2.20	1.21	1.39	1.85	1.60	1.03	1.36
<b>REGIONAL TOTALS</b>	<b>26.20</b>	<b>28.74</b>	<b>28.76</b>	<b>37.44</b>	<b>39.43</b>	<b>28.77</b>	<b>30.86</b>
<u>Southern Region</u>							
Beaver	1.51	0.44	0.97	0.50	2.25	0.58	0.57
Garfield	0.97	0.35	0.81	0.47	0.27	1.56	0.51
Iron	2.15	0.75	1.89	1.65	1.17	2.49	1.57
Kane	0.04	0.94	0.66	0.93	0.90	1.17	0.28
Millard	3.23	2.35	2.22	3.77	4.30	5.06	4.64
Piute	0.11	0.31	0.29	0.92	0.59	0.43	0.30
Sevier	0.60	1.16	1.83	2.40	2.21	2.88	1.35
Washington	4.40	1.25	2.44	2.00	1.72	2.88	2.90
Wayne	2.00	1.43	1.05	1.64	1.17	1.48	1.03
<b>REGIONAL TOTALS</b>	<b>15.02</b>	<b>8.98</b>	<b>12.17</b>	<b>14.28</b>	<b>14.58</b>	<b>18.52</b>	<b>13.14</b>
<u>Northeastern Region</u>							
Daggett	1.83	1.16	3.56	1.97	0.82	0.68	1.38
Duchesne	10.60	6.45	6.67	5.24	4.08	6.31	10.33
Uintah	9.50	9.69	9.44	5.59	4.28	7.25	9.98
<b>REGIONAL TOTALS</b>	<b>21.93</b>	<b>17.30</b>	<b>19.66</b>	<b>12.80</b>	<b>9.18</b>	<b>14.24</b>	<b>21.69</b>
<u>Southeastern Region</u>							
Carbon	7.35	7.76	5.26	5.13	5.90	7.03	9.20
Emery	5.55	7.26	5.11	4.59	4.38	5.18	5.88
Grand	2.78	0.75	1.54	0.77	1.52	2.73	1.70
San Juan	1.83	1.23	1.86	1.63	1.35	5.34	2.93
<b>REGIONAL TOTALS</b>	<b>17.54</b>	<b>17.01</b>	<b>13.77</b>	<b>12.11</b>	<b>13.16</b>	<b>20.28</b>	<b>19.70</b>
Unknown counties	0.02	2.54	1.75	0.15	0.04	0.10	2.51
Mixed counties	2.61	4.89	0.00	0.88	0.04	1.09	0.00
<b>STATE TOTALS</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 8. Statewide summary of cottontail rabbit harvest statistics, 1967-82.

Year	Total Hunters	Total Harvest	Hunter-days Afield	Cottontails Per Hunter-day	Cottontails Per Hunter
1967	23,249	181,812	92,681	1.95	7.79
1968	26,889	225,450	93,126	2.42	8.38
1969	29,760	184,034	119,596	1.54	6.18
1970	24,486	195,248	103,725	1.86	7.97
1971	30,824	239,511	145,287	1.65	7.78
1972	22,835	155,102	105,941	1.46	6.79
1973	20,109	88,603	87,036	1.02	4.41
1974	22,737	86,506	85,499	1.01	3.80
1975	24,803	154,182	116,707	1.32	6.22
1976	28,239	235,952	126,737	1.86	8.39
1977	35,831	269,263	157,257	1.71	7.51
1978	35,590	401,071	163,019	2.46	11.27
1979	33,385	200,223	127,497	1.57	6.00
1980	25,156	127,652	87,051	1.47	5.07
1981	25,906	149,765	104,183	1.44	5.78
1982	26,714	156,696	105,644	1.48	5.87
<b>TOTALS</b> (1967-82)	436,513	3,051,070	1,820,986	(24.74)	(103.34)
<b>AVERAGES</b> (1967-81)	27,320	192,958	114,356	1.65	6.89

Table 9. Cottontail rabbit field bag check summary, 1982.

Region and County	ALL HUNTS				COMPLETE HUNTS				
	Total Parties	Total Hunters	Total Hours	Total Rabbits/100 Hr	Total Complete Hunts	Total Hunters	Total Hours	Total Rabbits/100 Hr	Rabbits/Hunter
<u>Northern Region</u>									
Box Elder	--	--	--	--	--	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--
<u>REGIONAL TOTALS</u>									
<u>Central Region</u>									
Juab	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--
<u>REGIONAL TOTALS</u>									
<u>Southern Region</u>									
Beaver	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--
<u>REGIONAL TOTALS</u>									
<u>Northeastern Region</u>									
Daggett	9	21	49	37	4	8	22	23	104
Duchesne	12	23	58	29	4	6	16	12	75
Uintah	37	65	114	125	19	32	70	71	101
<u>REGIONAL TOTALS</u>									
	58	109	221	191	27	46	108	106	98
<u>Southeastern Region</u>									
Carbon	8	16	24	21	5	9	17	16	94
Emery	12	23	51	22	8	16	42	14	33
Grand	2	4	1	0	0	0	0	0	--
San Juan	2	4	6	11	1	2	4	9	225
<u>REGIONAL TOTALS</u>									
	24	47	82	54	14	27	63	39	62
<u>STATE TOTALS</u>									
	82	156	303	245	41	73	171	145	85

Table 10. Cottontail hunter success trend determined by field bag checks, 1977-82.

Region and County	1977		1978		1979		1980		1981		1982	
	Bag/ 100 Hr Hunter	Bag/ 100 Hr Hunter	Bag/ 100 Hr Hunter	Bag/ 100 Hr Hunter	Bag/ 100 Hr Hunter	Bag/ 100 Hr Hunter	Bag/ 100 Hr Hunter	Bag/ 100 Hr Hunter	Bag/ 100 Hr Hunter	Bag/ 100 Hr Hunter	Bag/ 100 Hr Hunter	Bag/ 100 Hr Hunter
<u>Northern Region</u>												
Box Elder	46	1.97	40	1.74	29	1.23	34	1.09	26	1.00	--	--
Cache	17	0.67	--	--	4	0.33	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	33	2.29	52	2.79	19	0.73	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	167	1.67	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	41	1.92	46	2.14	20	0.93	34	1.09	26	1.00	--	--
<u>Central Region</u>												
Juab	--	--	--	--	67	2.00	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	13	0.42	33	0.88	30	0.93	--	--	--	--	--	--
Tooele	38	1.65	--	--	134	4.25	--	--	--	--	--	--
Utah	--	--	--	--	80	2.00	--	--	--	--	--	--
Wasatch	50	2.00	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	30	1.14	33	0.88	79	2.41	--	--	--	--	--	--
<u>Southern Region</u>												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	100	1.00	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	57	1.33	--	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--	--	--	--
<b>REGIONAL TOTALS</b>	63	1.25	--	--	--	--	386	3.86*	--	--	--	--
<u>Northeastern Region</u>												
Daggett	54	1.70	180	7.62	98	2.29	0	0.00	26	0.50	104	2.88
Duchesne	66	2.68	89	3.42	--	--	53	1.67	59	2.14	75	2.00
Uintah	138	4.83	189	4.13	--	--	--	--	53	1.00	101	2.22
<b>REGIONAL TOTALS</b>	68	2.49	162	6.10	98	2.29	29	0.55	49	1.58	98	2.30
<u>Southeastern Region</u>												
Carbon	62	3.00	289	4.50	--	--	36	1.00	--	--	94	1.78
Emery	8	0.30	26	1.40	--	--	25	0.25	114	3.60	33	0.88
Grand	11	0.29	22	0.60	50	0.50	--	--	44	--	--	--
San Juan	72	0.93	160	--	0	0.00	0	0.00	114	3.00	225	4.50
<b>REGIONAL TOTALS</b>	45	1.44	56	1.04	33	0.33	26	0.38	106	3.50	62	1.44
<b>STATE TOTALS</b>	49	1.82	108	3.88	65	1.85	33	0.66	49	1.52	85	1.99

\*Cottontails per hunter based on all hunts.

## SNOWSHOE HARE

### Harvest

During 1982, the eighth annual snowshoe hare hunting season was held statewide. Results of the 1982 hunter questionnaire are found in Table 11. Trends of snowshoe hares bagged per hunter-day, percent of harvest and percent of pressure (hunter-days) are found in Tables 12-14. The 1982 season compared to the season in 1981 and the average of the first seven hunts follow:

	<u>1982</u>	<u>Percent change from</u>	
		<u>1981</u>	<u>Average</u>
Snowshoe hare hunters	4,245	+19	-37
Snowshoe hares harvested	9,257	+19	-43
Hunter-days afield	13,073	+2	-34
Snowshoes per hunter-day	0.71	+16	-8
Snowshoes per hunter	2.18	0	-7

Significant misidentification of whitetail jackrabbits as snowshoe hares was anticipated prior to mailing the harvest questionnaire following the first season in 1975. This proved to be the case as a significant harvest of snowshoe hares was reported for counties outside the known range of the species. It was assumed that the problem was statewide, not just confined to those counties.

The 1976 harvest questionnaire was modified in an attempt to better inform respondents concerning the potential for misidentification and aid them in distinguishing between these two varying hares. Comparative reported harvests between 1975 and 1976 suggest that this was accomplished, at least to a significant degree, but the relatively large harvest in counties outside of the snowshoe's range suggested continued confusion. Further refinement was made in the 1977 harvest questionnaire in an effort to more clearly define the snowshoe hare harvest.

In 1978, a leaflet containing pictures and descriptions of the different species of hares found in Utah was mailed with the questionnaire. As a result of the identification leaflet, it is assumed that the data have been more accurate.

Results of the 1982 questionnaire indicate a 19 percent increase in snowshoe hare hunters and comparable harvest to 1981.

It is unknown what proportion of the reported snowshoe harvest is actually whitetail jackrabbits incorrectly identified by the hunters. However, it is believed that identification has been improving as a result of efforts to educate the hunter on the differences between the various species of hares found in Utah.

Hopefully, the 1982 increase in hunters afield and harvest does not reflect inaccurate identification of the snowshoe, but rather an actual increase in hunter participation and harvest.

Table 11. Summary of snowshoe hare hunter success and distribution of harvest and hunting pressure by region and county, 1982.

Region and County	Sample Size*	Hunter-days Afield	Snowshoes Bagged	Snowshoe/Hunter-day	% of Pressure	% of Harvest
<b>NORTHERN REGION</b>						
BOX ELDER	34	1,655	521	0.31	12.66	5.63
CACHE	12	321	199	0.62	2.46	2.15
DAVIS	5	76	0	0.00	0.59	0.00
MORGAN	14	429	214	0.50	3.28	2.32
RICH	13	521	275	0.53	3.99	2.98
SUMMIT	21	720	551	0.77	5.51	5.96
WEBER	7	429	137	0.32	3.28	1.49
<b>REGIONAL TOTALS</b>	<b>106</b>	<b>4,153</b>	<b>1,900</b>	<b>0.46</b>	<b>31.77</b>	<b>20.53</b>
<b>CENTRAL REGION</b>						
JUAB	12	367	674	1.83	2.81	7.28
SALT LAKE	6	153	30	0.20	1.17	0.33
SANPETE	11	444	429	0.97	3.40	4.64
TOOELE	21	1,256	1,272	1.01	9.61	13.74
UTAH	25	827	321	0.39	6.33	3.48
WASATCH	26	842	705	0.84	6.45	7.62
<b>REGIONAL TOTALS</b>	<b>101</b>	<b>3,892</b>	<b>3,433</b>	<b>0.88</b>	<b>29.78</b>	<b>37.09</b>
<b>SOUTHERN REGION</b>						
BEAVER	1	30	30	1.00	0.23	0.33
GARFIELD	0	0	0	0.00	0.00	0.00
IRON	0	0	0	0.00	0.00	0.00
KANE	0	0	0	0.00	0.00	0.00
MILLARD	1	15	15	1.00	0.12	0.17
PIUTE	1	61	30	0.50	0.47	0.33
SEVIER	3	61	45	0.75	0.47	0.50
WASHINGTON	0	0	0	0.00	0.00	0.00
WAYNE	7	183	107	0.58	1.41	1.16
<b>REGIONAL TOTALS</b>	<b>13</b>	<b>352</b>	<b>229</b>	<b>0.65</b>	<b>2.70</b>	<b>2.48</b>
<b>NORTHEASTERN REGION</b>						
DAGGETT	5	260	122	0.47	1.99	1.32
DUCHESNE	22	1,639	1,287	0.79	12.54	13.91
UINTAH	27	1,670	965	0.58	12.78	10.43
<b>REGIONAL TOTALS</b>	<b>54</b>	<b>3,571</b>	<b>2,375</b>	<b>0.67</b>	<b>27.32</b>	<b>25.66</b>
<b>SOUTHEASTERN REGION</b>						
CARBON	13	383	505	1.32	2.93	5.46
EMERY	11	444	567	1.28	3.40	6.13
GRAND	1	15	45	3.00	0.12	0.50
SAN JUAN	1	15	0	0.00	0.12	0.00
<b>REGIONAL TOTALS</b>	<b>26</b>	<b>858</b>	<b>1,118</b>	<b>1.30</b>	<b>6.57</b>	<b>12.09</b>
UNKNOWN	6	245	199	0.81	1.88	2.15
<b>STATE TOTALS</b>	<b>306</b>	<b>13,073</b>	<b>9,257</b>	<b>0.71</b>	<b>100.00</b>	<b>100.00</b>

\*Total hunter trips from questionnaire returns.

\*\*Probable misidentification as snowshoe are not known to exist in those counties.

Table 12. Summary of snowshoe hares bagged per hunter-day by region and county, 1977-82.

Region and County	Year					
	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>						
Box Elder	0.78	0.45	0.55	0.82	0.43	0.31
Cache	0.70	0.65	0.50	0.32	0.46	0.62
Davis	1.00	0.23	1.50	0.00	0.25	0.00
Morgan	0.87	0.84	0.58	0.41	0.25	0.50
Rich	0.62	3.02	1.40	1.79	2.17	0.53
Summit	1.06	1.65	0.93	0.86	0.91	0.77
Weber	0.67	0.76	0.52	0.58	1.00	0.32
REGIONAL TOTALS	0.83	1.07	0.74	0.83	0.72	0.46
<u>Central Region</u>						
Juab	0.00	1.25	2.09	0.25	0.83	1.83
Salt Lake	1.69	6.27	0.20	0.67	1.00	0.20
Sanpete	0.95	1.40	1.11	0.87	0.84	0.97
Tooele	0.33	1.80	0.38	0.40	0.08	1.01
Utah	0.67	0.50	0.71	0.48	0.26	0.39
Wasatch	0.83	0.67	0.97	0.69	0.97	0.84
REGIONAL TOTALS	0.82	1.47	0.93	0.61	0.53	0.88
<u>Southern Region</u>						
Beaver	1.00	2.67	1.00	0.00	0.00	1.00
Garfield	0.00	0.13	0.00	0.00	0.00	0.00
Iron	0.00	26.00	0.00	0.00	0.75	0.00
Kane	0.00	0.00	5.00	0.00	0.00	0.00
Millard	0.50	3.20	0.43	1.00	0.00	1.00
Piute	1.00	0.00	1.25	0.00	0.00	0.50
Sevier	0.34	0.83	0.96	0.41	0.29	0.75
Washington	2.00	1.00	4.00	0.00	0.00	0.00
Wayne	2.44	0.68	2.05	1.17	2.00	0.58
REGIONAL TOTALS	0.86	0.92	1.27	0.45	0.62	0.65
<u>Northeastern Region</u>						
Daggett	2.00	0.72	0.46	0.25	0.00	0.47
Duchesne	0.74	1.26	0.53	0.14	0.67	0.79
Uintah	0.59	0.96	1.00	0.63	0.34	0.58
REGIONAL TOTALS	0.71	0.97	0.60	0.33	0.51	0.67
<u>Southeastern Region</u>						
Carbon	0.60	1.00	0.70	1.22	0.34	1.32
Emery	0.44	1.62	0.59	0.70	0.71	1.28
Grand	0.00	5.00	0.00	0.00	1.00	3.00
San Juan	0.00	0.00	0.00	0.00	0.00	0.00
REGIONAL TOTALS	0.53	1.54	0.63	0.83	0.43	1.30
Unknown counties	1.17	0.67	0.00	0.00	2.33	0.81
Mixed counties	0.76	1.00	2.00	0.20	0.78	0.00
STATE TOTALS	0.80	1.15	0.81	0.68	0.61	0.71



Table 13. Percentage distribution of snowshoe hare harvested by region and county, 1977-82.

Region and County	Year					
	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>						
Box Elder	5.14	2.83	7.58	11.86	5.80	5.63
Cache	5.99	4.81	5.68	3.80	6.63	2.15
Davis	0.86	0.54	1.50	0.00	0.55	0.00
Morgan	9.84	10.47	7.88	4.03	0.55	2.32
Rich	4.42	9.47	9.77	20.81	7.18	2.98
Summit	15.55	19.02	18.15	15.66	17.40	5.96
Weber	3.99	1.68	2.69	1.57	3.59	1.49
<b>REGIONAL TOTALS</b>	<b>45.79</b>	<b>48.82</b>	<b>53.24</b>	<b>57.72</b>	<b>41.70</b>	<b>20.53</b>
<u>Central Region</u>						
Juab	0.00	0.38	2.29	0.44	1.38	7.28
Salt Lake	3.85	14.36	0.20	2.24	1.93	0.33
Sanpete	5.99	0.54	8.13	7.38	4.42	4.64
Tooele	0.57	2.06	0.90	2.69	0.28	13.74
Utah	4.14	3.21	2.99	4.70	4.97	3.48
Wasatch	7.56	4.28	9.07	9.40	7.74	7.62
<b>REGIONAL TOTALS</b>	<b>22.11</b>	<b>24.83</b>	<b>23.63</b>	<b>26.85</b>	<b>20.72</b>	<b>37.09</b>
<u>Southern Region</u>						
Beaver	0.14	0.61	0.10	0.00	0.00	0.33
Garfield	0.00	0.31	0.00	0.00	0.00	0.00
Iron	0.00	1.99	0.00	0.00	0.83	0.00
Kane	0.00	0.00	0.50	0.00	0.00	0.00
Millard	0.14	1.22	0.30	0.22	0.00	0.17
Piute	0.14	0.00	1.00	0.00	0.00	0.33
Sevier	1.43	4.97	4.99	2.46	1.38	0.50
Washington	0.29	0.08	0.80	0.00	0.00	0.00
Wayne	3.14	1.91	3.89	1.57	2.21	1.16
<b>REGIONAL TOTALS</b>	<b>5.28</b>	<b>11.08</b>	<b>11.57</b>	<b>4.25</b>	<b>4.42</b>	<b>2.48</b>
<u>Northeastern Region</u>						
Daggett	0.86	2.22	1.30	0.67	0.00	1.32
Duchesne	5.71	3.36	2.39	0.67	14.09	13.91
Uintah	3.71	1.83	1.69	2.24	5.80	10.43
<b>REGIONAL TOTALS</b>	<b>10.27</b>	<b>7.41</b>	<b>5.38</b>	<b>3.58</b>	<b>19.89</b>	<b>25.66</b>
<u>Southeastern Region</u>						
Carbon	3.42	2.75	2.59	2.46	3.59	5.46
Emery	1.00	2.98	2.59	4.25	1.38	6.13
Grand	0.00	1.91	0.00	0.00	0.55	0.50
San Juan	0.00	0.00	0.00	0.00	0.00	0.00
<b>REGIONAL TOTALS</b>	<b>4.42</b>	<b>7.64</b>	<b>5.18</b>	<b>6.71</b>	<b>5.52</b>	<b>12.09</b>
Unknown counties	3.99	0.15	0.00	0.00	1.93	2.15
Mixed counties	8.13	0.08	1.00	0.90	5.80	0.00
<b>STATE TOTALS</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 14. Percentage distribution of snowshoe hare hunting pressure by region and county, 1977-82.

Region and County	Year					
	1977	1978	1979	1980	1981	1982
<u>Northern Region</u>						
Box Elder	5.26	7.26	11.20	9.92	8.21	12.66
Cache	6.85	8.49	9.19	8.09	8.71	2.46
Davis	0.68	2.71	0.81	0.76	1.34	0.59
Morgan	9.02	14.35	10.96	6.72	1.34	3.28
Rich	5.71	3.59	5.64	7.94	2.01	3.99
Summit	11.76	13.21	15.79	12.37	11.56	5.51
Weber	4.79	2.54	4.19	1.83	2.18	3.28
REGIONAL TOTALS	44.06	52.14	57.78	47.63	35.34	31.77
<u>Central Region</u>						
Juab	1.03	0.35	0.89	1.22	1.01	2.81
Salt Lake	1.83	2.62	0.81	2.29	1.17	1.17
Sanpete	5.02	0.44	5.96	5.80	3.18	3.40
Tooele	1.37	1.31	1.93	4.58	2.01	9.61
Utah	4.91	7.35	3.38	6.72	11.56	6.33
Wasatch	7.31	7.26	7.57	9.31	4.86	6.45
REGIONAL TOTALS	21.46	19.34	20.55	29.92	23.79	29.78
<u>Southern Region</u>						
Beaver	0.11	0.26	0.08	1.22	0.00	0.23
Garfield	0.00	2.80	0.08	0.00	0.00	0.00
Iron	0.00	0.09	0.00	0.00	0.67	0.00
Kane	0.00	0.00	0.08	0.00	0.00	0.00
Millard	0.23	0.44	0.56	0.15	0.17	0.12
Piute	0.11	0.00	0.64	0.00	0.00	0.47
Sevier	3.31	6.82	4.19	4.12	2.85	0.47
Washington	0.11	0.09	0.16	0.00	0.00	0.00
Wayne	1.03	3.24	1.53	0.92	0.67	1.41
REGIONAL TOTALS	4.91	13.74	7.33	6.41	4.36	2.70
<u>Northeastern Region</u>						
Daggett	0.34	3.50	2.26	1.83	0.50	1.99
Duchesne	6.16	3.06	3.63	3.21	12.73	12.54
Uintah	5.02	2.19	1.37	2.44	10.39	12.78
REGIONAL TOTALS	11.53	8.75	7.25	7.48	23.62	27.32
<u>Southeastern Region</u>						
Carbon	4.57	3.15	2.98	1.37	6.37	2.93
Emery	1.83	2.10	3.55	4.12	1.17	3.40
Grand	0.34	0.44	0.00	0.00	0.34	0.12
San Juan	0.00	0.00	0.08	0.00	0.00	0.12
REGIONAL TOTALS	6.74	5.69	6.61	5.50	7.87	6.57
Unknown counties	2.74	0.26	0.08	0.00	0.50	1.88
Mixed counties	8.56	0.09	0.40	3.05	4.52	0.00
STATE TOTALS	100	100	100	100	100	100

Table 15. Statewide summary of snowshoe hare harvest statistics, 1975-82.

Year	Total Hunters	Total Harvest	Hunters-days Afield	Hares Per Hunter-day	Hares Per Hunter
1975	5,961	12,072	19,770	0.61	2.03
1976	8,502	15,500	20,367	0.76	1.82
1977	9,752	21,232	26,535	0.80	2.18
1978	8,205	34,535	30,155	1.15	4.21
1979	6,787	14,641	18,115	0.81	2.16
1980	4,048	7,603	11,140	0.68	1.88
1981	3,554	7,750	12,782	0.61	2.18
1982	4,245	9,257	13,073	0.71	2.18
<b>TOTALS</b> (1975-82)	51,054	122,590	151,937	0.81	2.40
<b>AVERAGES</b> (1975-81)	6,687	16,190	19,838	0.77	2.35

A P P E N D I X

Table 1. Comparison of 1982 monthly average temperatures to the normal for each weather division and statewide.

Weather Division	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>No. 1 WESTERN</b>												
Normal	25.9	31.8	38.0	47.2	56.4	64.4	74.0	72.0	62.4	50.6	37.2	28.6
1982	27.3	31.2	40.4	45.4	55.7	64.7	72.3	74.8	61.2	46.0	35.3	27.6
Departure (degrees)	+1.4	-0.6	+2.4	-1.8	-0.7	+0.3	-1.7	+2.8	-1.2	-4.6	-1.9	-1.0
<b>No. 2 DIXIE</b>												
Normal	39.0	44.1	49.2	57.6	66.5	75.2	82.6	80.6	73.7	62.5	48.4	40.2
1982	36.8	44.0	48.9	56.2	66.9	74.8	80.1	80.5	71.5	57.2	45.6	38.4
Departure (degrees)	-2.2	-0.1	-0.3	-1.4	+0.4	-0.4	-2.5	-0.1	-2.2	-5.3	-2.8	-1.8
<b>No. 3 NORTH CENTRAL</b>												
Normal	26.7	31.9	38.5	48.3	57.5	65.0	74.6	72.7	63.5	51.7	38.5	29.7
1982	24.9	27.4	39.6	44.4	54.9	64.7	71.8	74.6	60.9	46.3	35.5	28.0
Departure (degrees)	-1.8	-4.5	+1.1	-3.9	-2.6	-0.3	-2.8	+1.9	-2.6	-5.4	-3.0	-1.7
<b>No. 4 SOUTH CENTRAL</b>												
Normal	26.9	31.3	36.9	45.6	54.4	62.3	70.0	68.1	60.5	50.0	37.6	29.3
1982	24.7	30.0	37.9	44.0	53.0	61.0	68.2	69.0	59.3	44.8	34.6	26.4
Departure (degrees)	-2.2	-1.3	+1.0	-1.6	-1.4	-1.3	-1.8	+0.9	-1.2	-5.2	-3.0	-2.9
<b>No. 5 NORTHERN MOUNTAINS</b>												
Normal	20.9	24.3	30.2	40.8	49.9	56.8	65.1	63.2	55.0	45.0	32.3	24.2
1982	20.4	21.9	32.4	37.6	48.2	56.6	64.0	65.9	54.3	40.9	28.6	21.8
Departure (degrees)	-0.5	-2.4	+2.2	-3.2	-1.7	-0.2	-1.1	+2.7	-0.7	-4.1	-3.7	-2.4
<b>No. 6 UINTAH BASIN</b>												
Normal	16.8	23.9	35.0	46.7	56.4	63.8	71.5	69.2	60.4	48.7	34.1	22.1
1982	18.8	25.7	38.3	43.4	55.3	63.7	71.1	72.0	60.6	44.6	31.7	22.7
Departure (degrees)	+2.0	+1.8	+3.3	-3.3	-1.1	-0.1	-0.4	+2.8	+0.2	-4.1	-2.4	+0.6
<b>No. 7 SOUTHEAST</b>												
Normal	27.3	33.6	40.6	50.6	60.1	68.7	76.1	73.7	65.6	53.7	39.3	29.8
1982	27.2	31.6	42.9	49.6	59.5	68.6	75.7	74.7	65.7	48.9	37.9	31.2
Departure (degrees)	-0.1	-2.0	+2.3	-1.0	-0.6	-0.1	-0.4	+1.0	+0.1	-4.8	-1.4	+1.4
<b>STATE AVERAGES</b>												
Normal	26.2	31.6	38.3	48.1	57.3	65.2	73.4	71.4	63.0	51.7	38.2	29.1
1982	25.7	30.3	40.1	45.8	56.2	64.9	71.9	73.1	61.9	47.0	35.6	28.0
Departure (degrees)	-0.5	-1.3	+1.8	-2.3	-1.1	-0.3	-1.5	+1.7	-1.1	-4.7	-2.6	-1.1

Table 2. Comparison of 1982 monthly average precipitation to the normal for each weather division and statewide.

Weather Division	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>No. 1 WESTERN</b>												
Normal	0.60	0.59	0.75	0.87	0.84	0.82	0.61	0.76	0.50	0.76	0.69	0.70
1982	0.51	0.44	1.07	0.36	1.26	0.58	1.16	1.07	4.16	1.30	0.67	0.82
Departure (inches)	-0.09	-0.15	+0.32	-0.51	+0.42	-0.24	+0.55	+0.31	+3.66	+0.54	-0.02	+0.12
<b>No. 2 DIXIE</b>												
Normal	1.15	1.21	1.30	0.91	0.53	0.38	0.89	0.95	0.67	0.88	0.91	1.17
1982	1.98	0.74	2.82	0.34	0.21	0.22	0.89	2.30	1.99	0.50	2.67	2.29
Departure (inches)	+0.83	-0.47	+1.52	-0.57	-0.32	-0.16	0.00	+1.35	+1.32	-0.38	+1.76	+1.12
<b>No. 3 NORTH CENTRAL</b>												
Normal	1.47	1.32	1.62	1.96	1.67	1.50	0.59	0.94	0.85	1.36	1.49	1.56
1982	1.64	1.11	3.50	1.37	1.79	0.73	2.05	0.75	6.60	2.37	1.64	1.94
Departure (inches)	+0.17	-0.21	+1.88	-0.59	+0.12	-0.77	+1.46	-0.19	+5.75	+1.01	+0.15	+0.38
<b>No. 4 SOUTH CENTRAL</b>												
Normal	1.03	0.98	1.18	1.13	0.88	0.76	0.96	1.39	0.88	1.03	0.93	1.08
1982	1.61	0.59	1.75	0.28	0.84	0.47	1.20	1.83	3.17	1.12	1.58	1.52
Departure (inches)	+0.58	-0.39	+0.57	-0.85	-0.04	-0.29	+0.24	+0.44	+2.29	+0.09	+0.65	+0.44
<b>No. 5 NORTHERN MOUNTAINS</b>												
Normal	2.19	1.89	2.05	1.86	1.52	1.52	0.86	1.34	1.05	1.57	1.82	2.24
1982	2.92	1.42	3.64	2.03	1.44	0.72	1.83	0.88	6.23	2.01	2.28	2.10
Departure (inches)	+0.73	-0.47	+1.59	+0.17	-0.08	-0.80	+0.97	-0.46	+5.18	+0.44	+0.46	-0.14
<b>No. 6 UINTAH BASIN</b>												
Normal	0.51	0.43	0.50	0.68	0.68	0.90	0.62	0.87	0.72	0.94	0.51	0.69
1982	0.64	0.12	1.09	0.13	0.84	0.13	0.77	1.12	2.87	0.80	0.99	0.61
Departure (inches)	+0.13	-0.31	+0.59	-0.55	+0.16	-0.77	+0.15	+0.25	+2.15	-0.14	+0.48	-0.08
<b>No. 7 SOUTHEAST</b>												
Normal	0.61	0.56	0.60	0.68	0.59	0.56	0.74	1.23	0.77	1.07	0.61	0.73
1982	0.82	0.56	0.84	0.11	0.51	0.25	0.79	2.12	1.94	0.53	1.25	0.91
Departure (inches)	+0.21	0.00	+0.24	-0.57	-0.08	-0.31	+0.05	+0.89	+1.17	-0.54	+0.64	+0.18
<b>STATE AVERAGES</b>												
Normal	1.08	1.00	1.14	1.16	0.96	0.92	0.75	1.07	0.78	1.09	0.99	1.17
1982	1.45	0.71	2.10	0.66	0.98	0.44	1.24	1.44	3.85	1.23	1.58	1.46
Departure (inches)	+0.37	-0.29	+0.96	-0.50	+0.02	-0.48	+0.49	+0.37	+3.07	+0.14	+0.59	+0.29

Table 3. Number and percent of total upland game hunters afield who reported hunting each game species during 1977-82.

Species	Number of Hunters						Percent of Total					
	1977	1978	1979	1980	1981	1982	1977	1978	1979	1980	1981	1982
Pheasant	67,195	83,800	87,462	84,868	83,408	85,368	75.0	79.6	83.4	84.7	86.7	87.4
Chukar	12,691	16,291	15,210	15,100	12,907	11,326	14.2	15.5	14.5	15.1	13.4	11.6
Mourning dove	26,905	35,985	34,903	32,627	30,060	31,756	30.0	34.2	33.3	32.6	31.2	32.5
Sage grouse	14,078	16,231	16,927	15,219	10,083	8,997	15.7	15.4	16.1	15.2	10.5	9.2
Forest grouse	19,188	25,318	21,993	19,511	14,329	12,384	21.4	24.0	21.0	19.5	14.9	12.7
Quail	4,446	5,924	5,632	4,156	4,946	4,368	5.0	5.6	5.4	4.1	5.1	4.5
Hungarian partridge	3,557	4,743	3,435	3,359	3,545	2,590	4.0	4.5	3.3	3.4	3.7	2.7
Wild turkey**	152*	189*	126*	70*	115*	23*	0.2	0.2	0.1	0.1	0.1	0.02
Sharp-tailed grouse**	--	--	156	--	--	--	--	--	0.1	--	--	--
Band-tailed pigeon**	--	--	62	62	67	51	--	--	0.1	0.1	0.1	0.1
Ptarmigan	--	--	--	--	--	19	--	--	--	--	--	0.02
Cottontail rabbit	35,831	35,590	33,385	25,156	25,906	26,714	40.0	33.8	31.8	25.1	26.9	27.3
Snowshoe hare	9,752	8,205	6,787	4,048	3,554	4,245	10.9	7.8	6.5	4.0	3.7	4.3
TOTAL HUNTERS***	89,593	105,288	104,834	100,164	96,196	97,705						

\*Includes both spring and fall hunts.

\*\*Although wild turkey, band-tailed pigeon, ptarmigan and sharp-tailed grouse harvest was determined by separate questionnaires, it is assumed that these hunters are derived from the same group of hunters who reported hunting other upland game bird species.

\*\*\*Note: the columns do not total. This is due to the fact that many upland game hunters hunted more than one species.

Table 4. Percent of hunter trips resulting in failure to bag at least one bird, 1961-82.

Year	Pheasant			Dove			Chukar			Sage Grouse			Forest Grouse			Quail			Huns			
	O Bag	Hunt. Trips	%	O Bag	Hunt. Trips	%	O Bag	Hunt. Trips	%	O Bag	Hunt. Trips	%	O Bag	Hunt. Trips	%	O Bag	Hunt. Trips	%	O Bag	Hunt. Trips	%	
1961	714	3,204	22	51	583	9	318	539	59	--	--	--	--	109	383	28	72	123	72	123	59	
1962	700	2,685	19	39	456	9	147	362	41	220	468	47	188	281	201	31	36	108	36	108	33	
1963	795	3,317	24	53	691	8	248	550	45	45	154	29	144	229	305	23	59	177	59	177	33	
1964	911	3,115	29	60	681	9	266	568	47	82	168	49	225	311	316	30	62	150	62	150	41	
1965	1,165	4,009	29	--	--	--	486	881	57	54	131	41	133	331	371	34	93	233	93	233	40	
1966	1,242	4,297	29	136	1,067	13	423	891	48	138	266	52	194	475	424	38	116	315	116	315	37	
1967	1,253	4,833	28	153	1,319	12	477	915	52	185	449	41	177	665	457	37	132	347	132	347	38	
1968	1,422	5,223	27	236	1,312	18	495	1,095	45	241	648	37	273	646	465	39	148	292	148	292	51	
1969	1,897	5,335	36	214	1,568	14	647	1,250	52	257	603	43	209	666	314	40	101	210	101	210	48	
1970	1,546	4,686	33	193	1,274	15	466	962	48	234	625	37	223	673	385	42	87	210	87	210	41	
1971	1,783	5,049	35	210	1,333	16	464	934	50	259	593	44	271	794	339	45	120	224	120	224	54	
1972	1,743	4,617	38	270	1,421	19	457	827	55	226	553	41	329	1,019	311	41	97	196	97	196	49	
1973	1,659	4,699	35	209	1,596	13	414	824	50	292	668	44	388	1,259	333	47	108	227	108	227	48	
1974	2,347	5,323	44	323	1,951	17	511	955	54	374	901	42	535	1,354	406	44	121	220	121	220	55	
1975	2,472	5,604	44	329	2,154	13	607	1,105	55	408	783	33	371	1,131	266	39	87	184	87	184	47	
1976	1,739	4,294	40	273	1,709	16	408	781	52	259	792	41	528	1,388	299	42	106	247	106	247	43	
1977	1,874	5,175	36	295	1,967	15	511	943	54	397	972	35	419	1,419	306	34	85	246	85	246	35	
1978	1,507	4,858	31	279	1,986	14	343	882	39	301	853	35	585	1,691	403	32	119	243	119	243	49	
1979	2,222	7,024	32	343	2,671	13	528	1,150	46	400	1,215	33	501	1,283	254	34	75	206	75	206	36	
1980	1,684	5,867	29	258	2,145	12	458	1,008	45	392	944	42	297	741	241	40	57	172	57	172	33	
1981	1,305	4,637	28	239	1,558	15	302	669	45	184	493	37	269	919	292	44	89	176	89	176	51	
1982	1,768	6,725	26	363	2,338	16	406	824	49	269	620	43	325	919	292	44	89	176	89	176	51	
AVERAGES (1961-81)			32			13			50			41					41				37	43









Table 6. Season framework for upland game during 1982.

Species	Season Dates	Daily Bag Possession		Area Open
		Limit	Limit	
Pheasant	Nov. 6-14	2 cocks	4 cocks	Statewide
	Nov. 6-19	2 cocks	4 cocks	Box Elder, Cache, Davis and Weber counties.
	Nov. 6-21	2 cocks	4 cocks	Duchesne and Uintah counties.
	Nov. 6-Dec. 5	2 cocks	4 cocks	All state and federal lands (subject to restrictions and closures imposed by administering agencies) in Carbon, Duchesne, Emery, Grand, Juab, San Juan, Tooele, and Uintah counties.
Mourning dove	Sept. 1-30	15	30	Statewide.
Band-tailed pigeon	Sept. 1-30	5	10	Beaver, Garfield, Grand, Iron, Kane, Millard, Piute, San Juan, Sevier, Washington and Wayne counties.
Chukar	Sept. 18, 1982- Jan. 31, 1983	5	10	Statewide except as noted below.
	Sept. 18-Nov. 30	5	10	Cache, Davis, Morgan, Rich, Sanpete, Summit, and Wasatch counties, and those portions of the following counties lying east of Interstate Highway 15: Juab, Salt Lake, Utah and Weber counties. That portion of Box Elder Co. lying east of the Locomotive Springs - Snowville - Stone Idaho Road.
Daggett, Duchesne and Uintah counties were closed to chukar hunting during 1982.				
Sage grouse	Sept. 18-24	3	6	Beaver, Garfield, Iron, Kane, Piute, Sevier, and Wayne counties.
	Sept. 18-24	2	4	Box Elder (part), Daggett, Duchesne (part), Grand (part), Uintah, and Wasatch (part).

Table 6 (continued)

Species	Season Dates	Daily Bag Limit	Possession Limit	Area Open
	Sept. 18-24	1	2	Box Elder (part), Cache, Morgan, Rich, Summit, Wasatch (part) and Weber counties.

The following counties were closed to sage grouse hunting during 1982:

				Carbon, Davis, Emery, Grand (part), Juab, Millard, Salt Lake, San Juan, Sanpete, Tooele, Utah, Wasatch (part), and Washington.
Forest grouse	Sept. 18- Nov. 30	4 (aggregate)	8 (aggregate)	Statewide.
Quail	Nov. 6-14	5	10	Statewide except Duchesne, Morgan, Summit, Uintah and Washington counties.
	Nov. 6-21	5	10	Duchesne and Uintah counties.
	Nov. 6-Dec. 31	8	16	Washington County.

Morgan and Summit counties were closed to quail hunting in 1982.

Hungarian partridge	Sept. 18, 1982- Jan. 31, 1983	5	10	Tooele County. Parts of Box Elder, Juab, Salt Lake, Utah and Weber counties.
	Sept. 18-Nov. 30	5	10	Cache, Davis, Morgan, Rich, Summit, and Weber counties. Parts of Box Elder, Juab, Salt Lake and Utah counties.

Table 6 (continued)

Species	Season Dates	Daily Bag Possession		Area Open
		Limit	Limit	
Wild turkey				
Spring hunt	May 1-16	Season limit 1 male turkey		Garfield (part), Grand, Iron, Kane and Washington counties.
Fall hunt	Sept. 18-30	Season limit 1 turkey of either sex		Iron, Kane, Wayne, Washington and Garfield (part) counties.
Ptarmigan	Sept. 11- Oct. 13	Season limit 4 ptarmigan		Summit (part) and Duchesne (part) counties.
Snowshoe hare	Sept. 18, 1982 Jan. 31, 1983	5	10	Statewide.
Cottontail rabbit	Sept. 18, 1982 Jan. 31, 1983	10	20	Statewide except Box Elder (part), Cache, Daggett, Davis, Duchesne, Morgan, Rich, Summit, Uintah and Weber counties.
	Sept. 18, 1982- Jan. 31, 1983	5	10	Box Elder (part), Cache, Daggett, Davis, Duchesne, Morgan, Rich, Summit, Uintah and Weber counties.