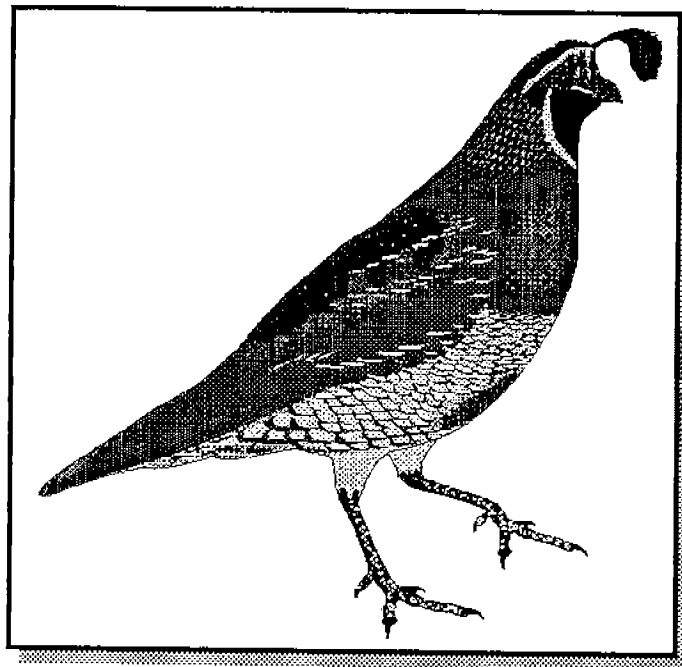


**UTAH
UPLAND GAME
ANNUAL REPORT 1995**



**UTAH DIVISION OF WILDLIFE
RESOURCES
DEPARTMENT OF NATURAL RESOURCES
PUBLICATION NO. 96-4**

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

Annual Report

1995

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Annual Performance Report for Federal Aid Project W-65-R-43 Job A-4

Utah Department of Natural Resources

DIVISION OF WILDLIFE RESOURCES

An Equal Opportunity Employer

Robert G. Valentine
Director

**"FINDING OUT HOW MANY THERE ARE LEFT IS
THE LEAST OF THE PURPOSES OF GAME CENSUS.**

**MEASURING THE RESPONSE OF GAME POPULATIONS
TO CHANGES - DELIBERATE OR ACCIDENTAL -
IN THEIR ENVIRONMENT IS THE BIG PURPOSE.**

**CONTINUOUS CENSUS IS THE YARDSTICK OF
SUCCESS OR FAILURE IN CONSERVATION."**

ALDO LEOPOLD 1932

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ANNUAL PERFORMANCE REPORT

RESEARCH PROJECT SEGMENT
(Inventory)

State: UTAH

Project Title: Statewide Wildlife
Management, Investigations
and Surveys

Project No.: W-65-R

Segment No.: 43

Job Title: Statewide Upland Game Inventory and Management

Job No.: A-4

Period Covered: October 1, 1994 to September 30, 1995

Abstract: This report identifies progress and accomplishments of Segment No. 43 objectives, 1994-95. Results of annual inventory and harvest surveys and long-term trends of population indices derived by each method are included in the Utah Upland Game Annual Report 1994. Data obtained in 1994 are compared to 1993 and long-term averages.

Project Statement Objectives:

1. To conduct efficient annual breeding and production surveys.
2. To determine annual harvest, hunters, and hunter-days and bag per hunter.
3. To describe and map all known sage and sharp-tailed grouse leks.
4. To describe and map all mourning dove, pheasant and cottontail survey routes.
5. To assess the impact of a federal migratory permit on small game license sales and mourning dove harvest estimates.
6. To evaluate Utah's upland game survey techniques in comparison to most recent research and develop the most cost effective and efficient survey methods.
7. To evaluate the feasibility of confidence intervals for Utah's small game harvest estimates.
8. Study the feasibility of combing Nongame rabbit surveys with Game Management surveys.
9. Evaluate the value of adding more dove call routes.
10. Explore the benefits of telephone survey to assess upland game hunter success.

Progress Statement and Summary of Work Completed During The Segment For Each Objective:

1. To conduct efficient annual breeding and production surveys.

Ongoing Objective. 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, 1994 through February 10, 1995, 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 22 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 each route between May 20-30, 1995.

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 22. 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 1993 for comparable grounds were determined on a county basis.

The Gambel's quail long period waterhole counts were completed in July and August. Limited valley quail random brood counts were made in several counties.

Cottontail rabbit roadside counts were conducted over pre-established routes between July 15 and August 22. Indices derived include rabbits per mile and young per 100 adults.

2. To determine annual harvest, hunters, and hunter-days and bag per hunter.

Ongoing Objective. Harvest questionnaires were mailed to determine the harvest of upland game birds, cottontail rabbit, and snowshoe hare. A sample of eligible licensees from the current year's (1994) resident small game license file and 1994 combination license file was used. The modified computerized pull-apart mailer was again used to obtain harvest data. Separate questionnaires were mailed to all ptarmigan, 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 processed by the Division of Wildlife Resources Public Services Section. Wild turkey, band-tailed pigeon and ptarmigan questionnaires were analyzed separately by Wildlife Section personnel.

Upland game hunters were checked at checking stations, and random field checks were 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.

3. To describe and map all known sage and sharp-tailed grouse leks.

Completed Objective. Described and mapped all known sage grouse and sharp-tailed grouse leks and dancing grounds.

4. To describe and map all mourning dove, pheasant and cottontail survey routes.

Completed Objective. Described and mapped all mourning dove, pheasant and cottontail routes.

5. To assess the impact of a federal migratory permit on small game license sales and mourning dove harvest estimates.

Completed Objective. Reviewed implementation strategies used by other states who have already implemented the federal migratory bird permit program. Waterfowl Program Coordinator and Division's Information Systems Analyst attended training sponsored by the U.S. Fish and Wildlife Service pertaining to implementation of the federal migratory bird permit. Objective #5 has been completed to the extent possible until implementation of the federal migratory permit in Utah in 1998.

6. To evaluate Utah's upland game survey techniques in comparison to most recent research and develop the most cost effective and efficient survey methods.

Completed Objective. A survey of other states upland game inventory and survey techniques has been completed. Based on survey results, Utah collects more inventory and survey data on upland game than most surrounding western states. Formal recommendations for adding new surveys and deleting less valuable surveys for Utah's upland game will be provided as part of Grant Proposal renewal in 1996.

7. To evaluate the feasibility of confidence intervals for Utah's small game harvest estimates.

We have completed a literature review for estimates and techniques, prepared some options and consulted with two statisticians at the University of Utah. The preferred option is to use some sort of

automated data recording system such as SCANTRON and code the data directly into a Statistical Analysis System (SAS) data set. SAS would be used to obtain confidence intervals. Currently the data set is nontransferable and the reprogramming costs too great to use the DWR Information Systems Services. We are attempting to identify and contract for the best automated data recording system. If the SAS data set is used the Harvest Report must be comparable to the present report. More consultation will take place during Segment No. 44 with a new biometrician that is working in DWR's Wildlife Section.

8. Study the feasibility of combing Nongame rabbit surveys with Game Management surveys.

Completed Objective. We have visited with the furbearer biologist about combining the surveys. They have determined to drop their fall rabbit spotlight count because of a lack of correlation with bobcat recruitment and trap success. Therefore, we cannot combine the surveys and will continue to survey our summer roadside counts for cottontail recruitment and fall hunter success using current methodology.

9. Evaluate the value of adding more dove call routes.

Completed Objective. Discussion has been made with Dave Dolton of the U.S. Fish and Wildlife Service concerning this indicating only moderate improvement in precision by adding 5 routes to our present 15. Rather than adding new routes, significant time was spent during Segment No. 43 in relocating existing routes into more representative habitat areas for doves. We will continue to "fine tune" dove routes in Utah into the future to ensure that routes capture a true picture of mourning dove breeding populations throughout the state.

10. Explore the benefits of telephone survey to assess upland game hunter success.

Completed Objective. Based on implications to Utah when the federal migratory bird harvest permit is implemented in 1998, we will hold off on a telephone survey to assess upland game harvest. Between now and 1998, we will consult closely with the Wildlife Section biometrician to determine the feasibility and cost of a telephone survey versus the pull-apart mail questionnaire currently in use.

Location of Work Performed: Statewide.

Costs Incurred:

Recommendations: This project should be continued for the purpose of determining trends of upland game population 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.

This is the twenty-fifth 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, wildlife managers and the upland game management staff of the Utah 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. A separate section is devoted to each species of upland game 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 1995, a total of 55,159 Utah sportsmen spent 389,511 days afield in pursuit of various upland game species (Table 1). The harvest of upland game totaled 403,421 animals. The proportion of the total upland game hunters which pursued each species is shown in Table 2 and the percentage failing to bag at least one bird (from general mail questionnaire) of each species in Table 3.

In 1995, Utah upland game hunters were again required to purchase an Upland Game Habitat Stamp in order to pursue pheasants, mourning doves, chukar partridge, sage grouse, forest grouse, quail, Hungarian partridge, cottontail rabbit and snowshoe hare. Funds derived from the Upland Game Habitat Stamp will be used to purchase, develop and protect critical upland game habitat throughout Utah.

The regulations for 1995 upland game hunting seasons are shown in Appendix D.

GENERAL HARVEST QUESTIONNAIRE

Harvest statistics were obtained from a random sample of licensed hunters by their response to a hunter questionnaire. The combined upland game bird and rabbit-hare questionnaire was again used.

A total of 14,777 upland game questionnaires, a 15.51 percent sample, were mailed. Of the total, 839 (5.68%) questionnaires were undeliverable. Of the 13,938 questionnaires delivered, 4,866 (34.91%) useable upland game questionnaires were returned. Of those, 2,029 purchased a license but did not hunt upland game. By dividing the total of 95,229 eligible licensees by the usable returns (4,866), a projection factor of 19.570282 is derived.

The 1995 hunter questionnaire sample size was greater than 10 percent of the total hunter population, so a follow-up questionnaire was not sent to those who failed to return the first one. A high rate of return is desirable in order to obtain an adequate sample 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.

Table 1. Summary of harvest statistics from the general mail questionnaire for 1995.

Species	Hunters		Total Harvest	Hunter-Days		Bag Per Hunter-Day	Bag Per Hunter For Season
	Afield			Afield			
Pheasant	38,391		71,202	142,755	0.50	1.85	
Mourning Dove	20,896		186,336	80,688	2.31	8.92	
Band-Tailed Pigeon	59	121		171	0.71	2.05	
Chukar Partridge	9,097		20,954	31,140	0.67	2.30	
Sage Grouse	5,987		7,133	12,615	0.57	1.19	
Forest Grouse	10,088		29,312	35,591	0.82	2.91	
Quail	4,374		13,023	12,712	1.02	2.98	
Hungarian Partridge	2,294		5,967	5,812	1.03	2.60	
Wild Turkey							
Merriam's	296	64		1,427	0.05	0.22	
Rio Grande	123	78		628	0.12	0.63	
Sharp-Tailed Grouse	--	--		--	--	--	
White-Tailed Ptarmigan	20	12		39	0.31	0.60	
Cottontail Rabbit	13,840	67,295		58,042	1.16	4.86	
Snowshoe Hare	1,983	1,924		7,891	0.24	0.97	
Total	--	403,421		389,511	--	--	
Total hunters afield for all species of upland game =						55,159	

Table 2. Number and percent of total upland game hunters afield who reported hunting each species during 1988-95.

Species	Number of Hunters										Percent of Total					
	1988	1989	1990	1991	1992	1993	1994	1995	1988	1989	1990	1991	1992	1993	1994	1995
Pheasant	54,514	50,382	47,025	42,813	41,640	39,640	36,705	38,391	77.70	75.20	72.50	69.14	71.27	66.52	74.12	69.60
Mourning Dove	22,467	21,696	22,700	22,632	18,021	19,725	20,743	20,896	16.00	16.30	17.30	36.55	30.85	33.10	41.89	37.88
Band-Tailed Pigeon*	11	23	9	15	18	8	13	59	0.01	0.03	0.01	0.02	0.03	0.01	0.03	0.11
Chukar	11,237	10,910	11,195	10,577	11,125	10,128	8,455	9,097	32.00	32.40	35.00	17.08	19.04	17.00	17.07	16.49
Sage Grouse	8,499	9,002	9,014	8,018	7,393	6,594	5,133	5,987	12.10	13.40	13.90	12.95	12.65	11.07	10.37	10.85
Forest Grouse	16,947	16,988	14,591	14,421	15,000	12,029	9,827	10,088	24.20	25.40	22.50	23.29	25.67	20.19	19.85	18.29
Quail	2,671	3,111	2,614	2,644	2,851	3,649	2,936	4,374	3.80	4.60	4.00	4.27	4.90	5.12	5.93	7.93
Hungarian Partridge	2,471	2,136	2,305	2,662	3,198	2,090	1,899	2,294	3.50	3.20	3.60	4.30	5.47	3.51	3.83	4.16
Wild Turkey*	421	477	531	532	484	466	285	296	0.60	0.70	0.80	0.86	0.83	0.78	0.58	0.54
Merriam's				18	20	41	105	123				0.03	0.03	0.07	0.21	0.22
Rio Grande																
Sharp-Tailed Grouse*																
White-Tailed Ptarmigan*	15	3	11	13	11	9	4	20	0.02	0.01	0.02	0.02	0.02	0.02	0.01	0.04
Cottontail Rabbit	24,076	22,878	23,079	21,137	20,509	17,578	12,709	13,840	34.30	34.20	35.60	34.13	35.10	29.50	25.67	25.09
Snowshoe Hare	4,725	4,895	4,095	3,427	3,732	2,755	1,565	1,983	6.70	7.30	6.30	5.53	6.39	4.62	3.16	3.60
Total Hunters**	70,142	67,017	64,868	61,922	58,423	59,590	49,518	55,159								

*Although wild turkey, sharp-tailed grouse, band-tailed pigeon and white-tailed ptarmigan 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.

**This is not the total of the columns because many upland game hunters hunted more than one species.

Table 3. Percent of hunter trips resulting in failure to bag at least one bird, 1961-95.

Year	Pheasant			Mourning Dove			Chukar			Sage Grouse			Forest Grouse			Quail			Hungarian Partridge			
	No	Hunting	%	No	Hunting	%	No	Hunting	%	No	Hunting	%	No	Hunting	%	No	Hunting	%	No	Hunting	%	
1961	714	3,204	22	51	583	9	318	539	59	--	--	--	109	383	28	72	123	59	72	123	59	
1962	500	2,686	19	39	456	9	147	362	41	--	--	--	62	201	31	36	108	33	36	108	33	
1963	795	3,317	24	53	691	8	248	560	45	220	468	47	188	281	67	71	305	23	67	305	23	
1964	911	3,115	29	60	681	9	266	568	47	45	154	29	144	229	63	94	316	30	62	316	30	
1965	1,165	4,009	29	--	--	--	486	851	57	82	168	49	225	311	72	128	371	34	93	371	34	
1966	1,242	4,297	29	136	1,067	13	523	881	48	54	131	41	133	331	40	106	316	34	63	316	34	
1967	1,353	4,833	28	153	1,319	12	477	915	52	138	266	52	194	475	41	161	424	38	116	424	38	
1968	1,422	5,223	27	236	1,312	18	495	1,095	45	185	449	41	177	665	27	171	457	39	132	457	39	
1969	1,897	5,335	36	214	1,568	14	647	1,250	62	241	648	37	273	656	42	182	465	39	148	465	39	
1970	1,546	4,686	33	193	1,274	15	466	982	48	257	603	43	209	666	31	126	314	40	101	314	40	
1971	1,783	5,049	35	210	1,333	16	464	934	50	234	625	37	223	673	33	162	385	42	87	385	42	
1972	1,743	4,617	38	270	1,421	19	457	827	55	259	593	44	271	794	34	154	339	45	120	339	45	
1973	1,659	4,699	35	209	1,596	13	414	824	50	226	553	41	329	1,019	32	128	311	41	97	311	41	
1974	2,347	5,323	44	323	1,951	17	511	955	54	292	668	44	388	1,259	31	157	333	47	108	333	47	
1975	2,472	5,604	44	329	2,554	13	607	1,105	55	374	901	42	535	1,354	40	177	406	44	121	406	44	
1976	1,739	4,294	40	273	1,709	16	408	781	52	259	783	33	371	1,131	33	105	266	39	87	266	39	
1977	1,874	5,175	36	295	1,967	15	511	943	54	394	972	41	528	1,388	38	125	299	42	106	299	42	
1978	1,507	4,858	31	279	1,986	14	343	882	39	301	853	35	419	1,419	30	103	306	34	85	306	34	
1979	2,222	7,024	32	343	2,671	13	528	1,150	46	400	1,215	33	585	1,591	35	130	403	32	119	403	32	
1980	1,684	5,867	29	258	2,145	12	458	1,008	45	392	944	42	501	1,283	39	87	254	34	75	254	34	
1981	1,305	4,637	28	239	1,558	15	302	669	45	184	493	37	297	741	40	97	241	40	57	241	40	
1982	1,768	6,725	26	363	2,338	16	406	824	49	269	620	43	325	919	35	128	292	44	89	292	44	
1983	1,645	7,153	23	348	2,381	15	362	880	41	294	729	40	300	1,118	27	105	310	34	82	310	34	
1984	1,245	4,643	27	274	1,711	16	287	548	52	202	435	46	270	640	42	84	189	44	51	189	44	
1985	1,207	4,017	30	221	1,500	15	208	426	49	161	376	43	228	656	36	61	148	41	35	148	41	
1986	1,211	3,615	33	224	1,476	15	237	537	44	139	368	38	221	667	33	58	125	46	36	125	46	
1987	863	2,837	30	140	1,047	13	194	537	36	90	307	29	143	671	21	46	111	41	34	111	41	
1988	1,372	3,953	35	244	1,525	16	308	77	40	187	557	34	224	1,184	19	63	171	37	73	171	37	
1989	1,126	2,985	38	184	1,184	16	263	614	43	183	468	39	257	961	27	68	160	43	53	160	43	
1990	988	2,745	36	161	1,234	13	282	632	45	162	483	34	233	810	39	54	132	41	46	132	41	
1991	1,062	2,461	43	205	1,301	16	309	608	51	198	461	43	262	829	32	69	152	45	67	152	45	
1992	905	2,750	33	156	1,150	14	298	701	43	169	432	39	208	969	21	68	168	40	67	168	40	
1993	1,035	2,086	50	194	1,038	19	354	533	66	191	347	55	346	633	55	85	192	44	75	192	44	
1994	889	2,088	43	230	1,180	19	278	481	58	148	292	51	243	553	43	64	167	38	78	167	38	
1995	919	2,452	37	224	1,286	17	259	554	47	169	347	49	277	790	35	95	241	39	54	241	39	
AVERAGES			33			14			49			38			35			39				46
(1961-94)																						

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 species is mailed to the permit holder. This method has been used for band-tailed pigeon, wild turkey, 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 returned useable sample is a completely random sample, (2) respondents recorded data correctly, i.e., they clearly understood the questionnaire, (3) respondents recorded data accurately, did not guess or lie, 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 contains 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 judgments 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.

RING-NECKED PHEASANT

SUMMARY



The 1994-95 winter was fairly mild. Temperatures were above normal in December through March, while precipitation was below normal in December and February. Because the most limiting factor for pheasants in Utah is significant winter cover adjacent to winter food sources, survival of pheasant brood stock was good.

Weather conditions during the nesting season, however, were questionable in 1995. Statewide monthly average temperatures were below normal (April-July). Average precipitation was above normal across several climatic subdivisions (March-June). Pheasants observed on roadside routes was below 1994, but hens appeared to have more young.

Above normal precipitation March-June delayed small grain emergence and normal hay mowing operations by two-three weeks. Vigorous weedy growth and delayed hay mowing because of above normal precipitation resulted in high pheasant chick survival.

Harvest statistics compiled from the questionnaire indicated a slight increase in success compared to 1994. Harvest increased 4 percent from 1994, but remained 65 percent below the long-term average. Opening weekend success was up compared to the previous year based upon field bag check data.

The pheasant hunt is the second most popular hunt in Utah. Mule deer hunting ranks first. Despite its popularity among Utah sportsmen, Utah's pheasant population continues to decline steadily. Primary reasons for population declines are due to outright losses of critical habitat and degradation of remaining habitat.

The Conservation Reserve Program (CRP), begun in 1985, has done little for Utah pheasant populations. Most CRP lands in Utah are in dryland farming areas. Pheasants prefer irrigated agricultural areas.

In 1992, the Utah Legislature authorized an Upland Game Habitat Stamp. Seventy-two percent of the funds generated by the stamp are to be used on pheasant habitat projects. Since 1992, funds have been used to acquire critical wintering habitat for pheasants in Myton and Richfield, develop food plots on private lands and transplant wild birds from urbanized areas.

Winter Sex Ratio Counts

Winter sex ratio counts provide an index as to how harvest of roosters only is affecting the pheasant populations. In Utah, one rooster for every two, three or four hens is most common. One rooster for every ten hens is biologically acceptable in that one rooster can easily service ten hens in the wild. Based on this biological concept, hunting of rooster pheasants only does not appear to be affecting the population.

Results of the survey for the winter of 1994-95 and long-term trends are shown in Tables 1, 2 and Figure 1 of this section. Statewide comparisons to the winter of 1993-94 and the 10-year (1985-94) average are as follows:

	Winter of <u>1994-95</u>	Percent change from <u>1993-94</u>	Percent change from <u>Average</u>
Total pheasants counted (roadside)	70	-78	-94
Hens per cock	2.33	-39	-25
Pheasants observed per 100 hours	737	+15	-34
Total hours effort (roadside)	10	-83	-91

The winter sex ratio count sample decreased 78 percent in 1995. However, density estimates can be biased due to the non-random nature of the survey technique if effort is minimal as in 1995. The hen-cock ratio decreased 39 percent from 1994, and was 25 percent below the long-term average. Effort to collect winter sex ratio data decreased 83 percent from 1994. Effort was expended only in the Central Region.

Roadside Counts

A summary of summer roadside pheasant counts for 1995 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 and Figure 2. Summer 1995 survey results compared to 1994 and the previous 10-year (1985-94) average follow:

	<u>1995</u>	Percent change from <u>1994</u>	Percent change from <u>Average</u>
Total pheasants observed	390	-39	-70
Total miles driven	889	-6	-48
Pheasants per mile	0.44	-35	-40
Average brood size	5.24	+12	+4
Young per hen	4.44	+56	+17
Percent of hens with young	76	+10	0

Total pheasants observed decreased 39 percent and pheasants per mile decreased 35 percent. Percent of hens with young increased 10 percent while average brood size increased 12 percent.

Less pheasants were observed on roadside counts in 1995 than in 1994. However, reproductive success per adult hen was up from the previous year. Higher than normal precipitation during the nesting season (March-June) stimulated a vigorous growth of vegetative cover. Thick cover may have resulted in less birds being observed on roadside counts in 1995.

Harvest

Hunter Questionnaire

Results of the hunter questionnaire for 1995 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 1995 harvest statistics to 1994 and the previous 47-year average follow:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Pheasant hunters	38,391	+5	-49
Pheasants harvested	71,202	+4	-65
Hunter-days afield	142,755	+10	-33
Pheasants per hunter-day	0.50	-6	-45
Pheasants per hunter	1.85	-1	-29

Ninety percent confidence interval for overall pheasant harvest is +/- 4315.42. Standard deviation is 0.910047.

Total hunters increased 5 percent from 1994 and remained 49 percent below the long-term average. Total harvest increased 4 percent from 1994. Hunter success (pheasants per hunter-day) decreased 6 percent from 1994. Pheasants per hunter decreased 1 percent and remains 29 percent below the long-term average.

Long-term trends (1948-95) of total hunters, hunter-days, harvest and hunter success are shown in Figures 3 and 4. Generally, the recent trend is toward less hunter-days with declines in total pheasants harvested and hunter success. We believe this is the result of the accumulated effects of loss of quantity and quality of habitat due to urbanization, flooding, modern agricultural practices, and habitat fragmentation resulting in increased predation.

Utah County accounted for one-quarter of the entire pheasant harvest, while Box Elder County accounted for 14 percent and Cache County for 11.55 percent.

FIGURE 1. PHEASANT WINTER SEX RATIO INDICES, 1965-95.

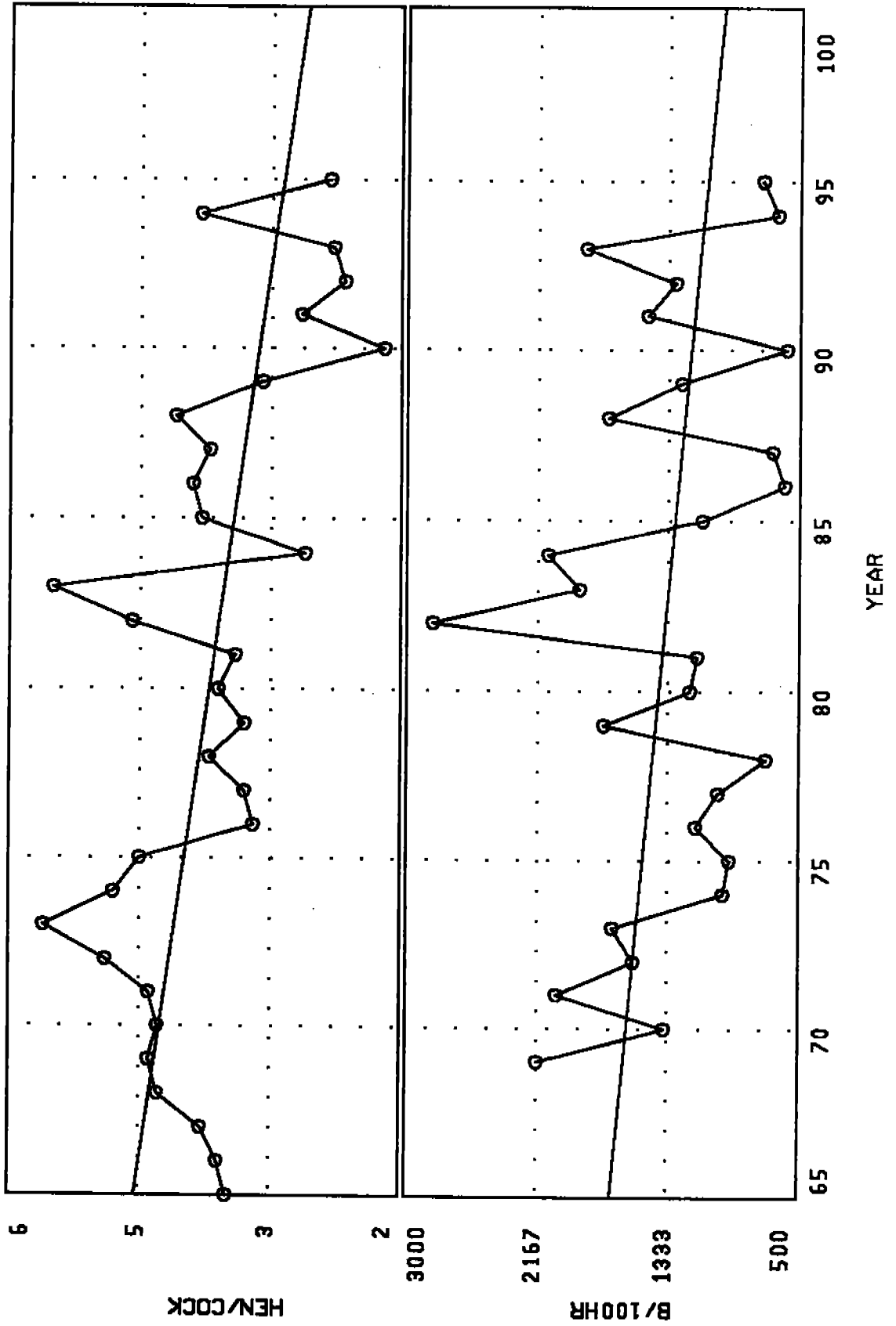
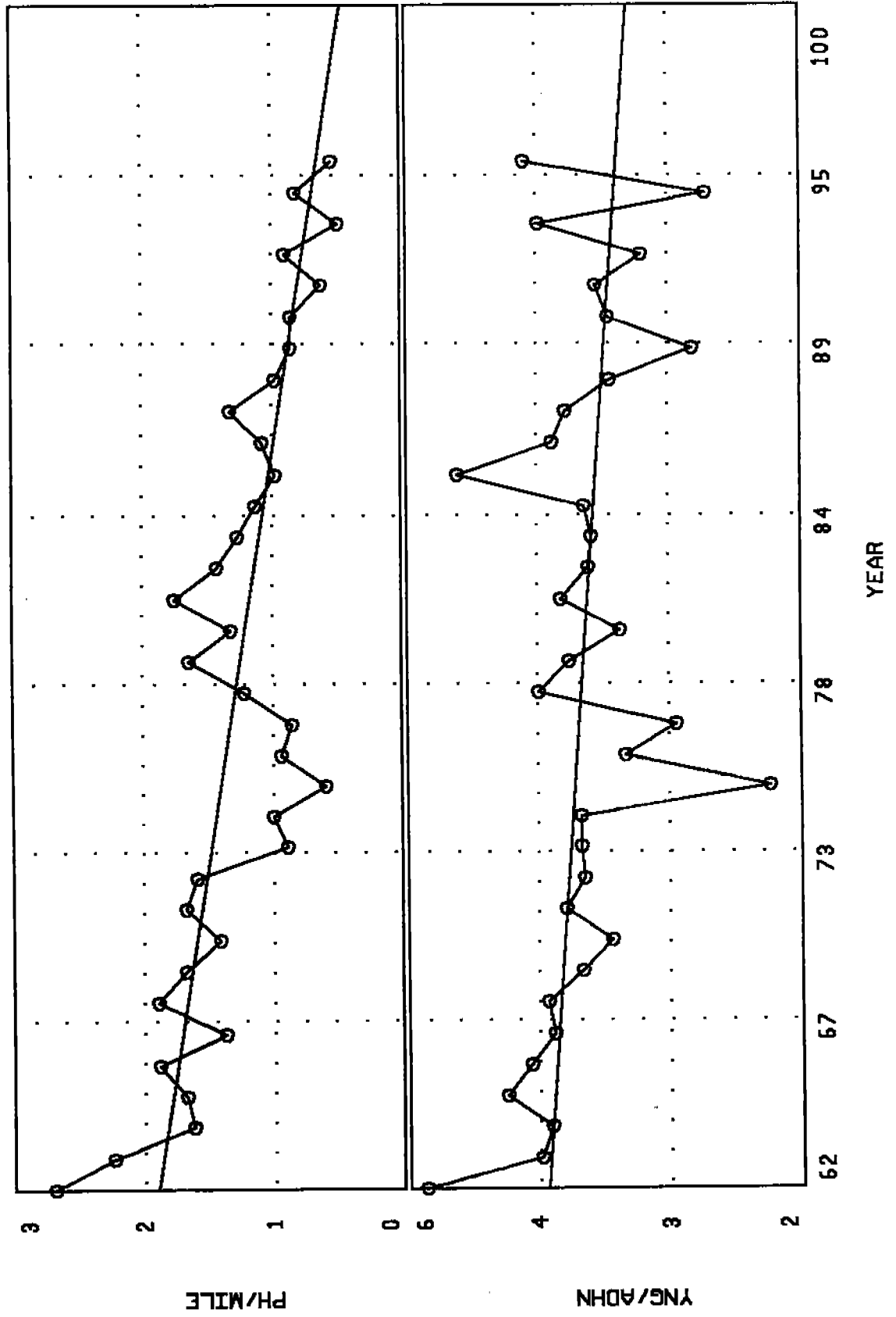


FIGURE 2. PHEASANT PRODUCTION INDICES, 1962-95.



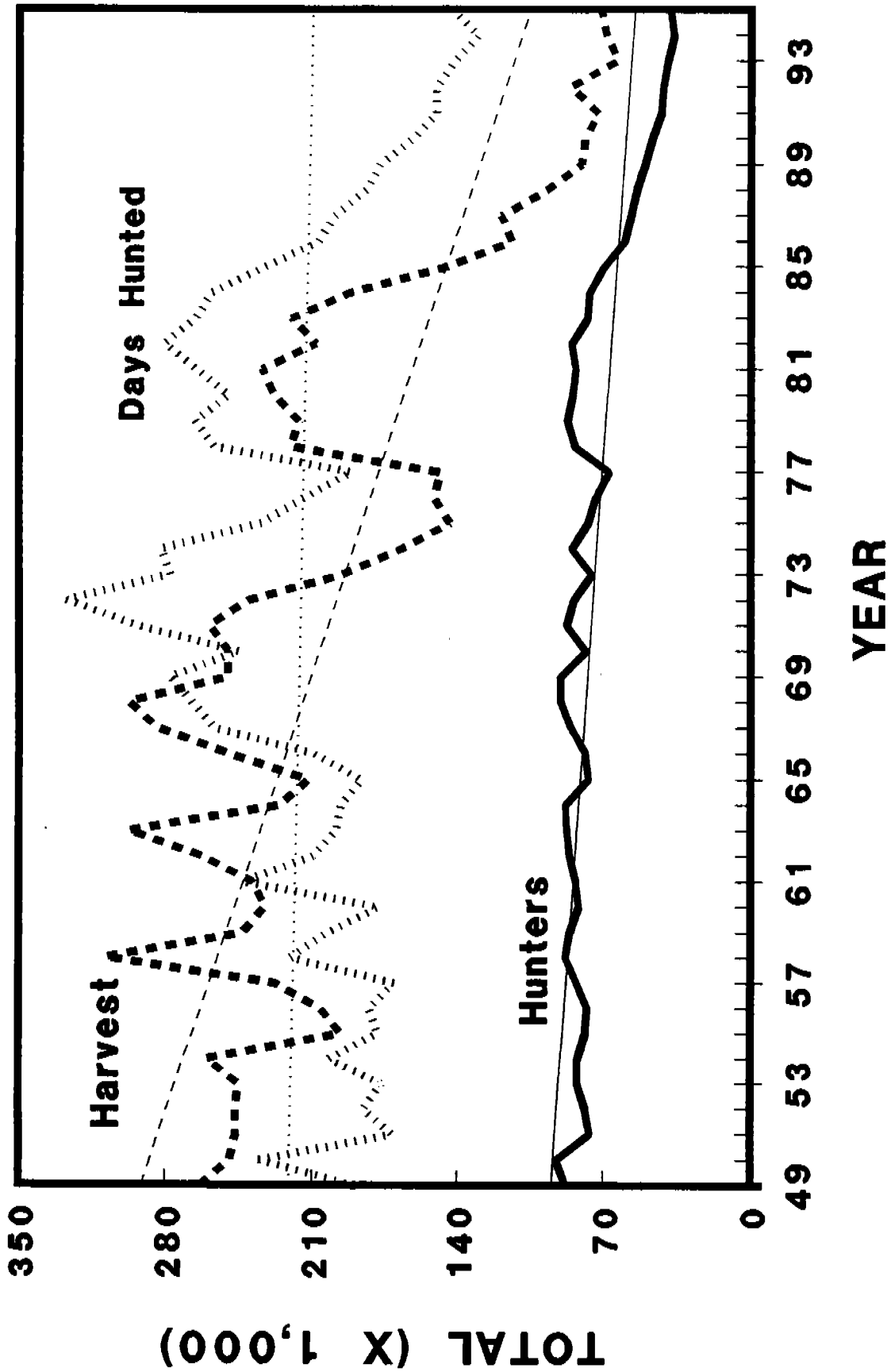


Figure 3. Statewide trends of pheasant harvest statistics, 1949-95.

PHEASANTS PER HUNTER AND PER DAY

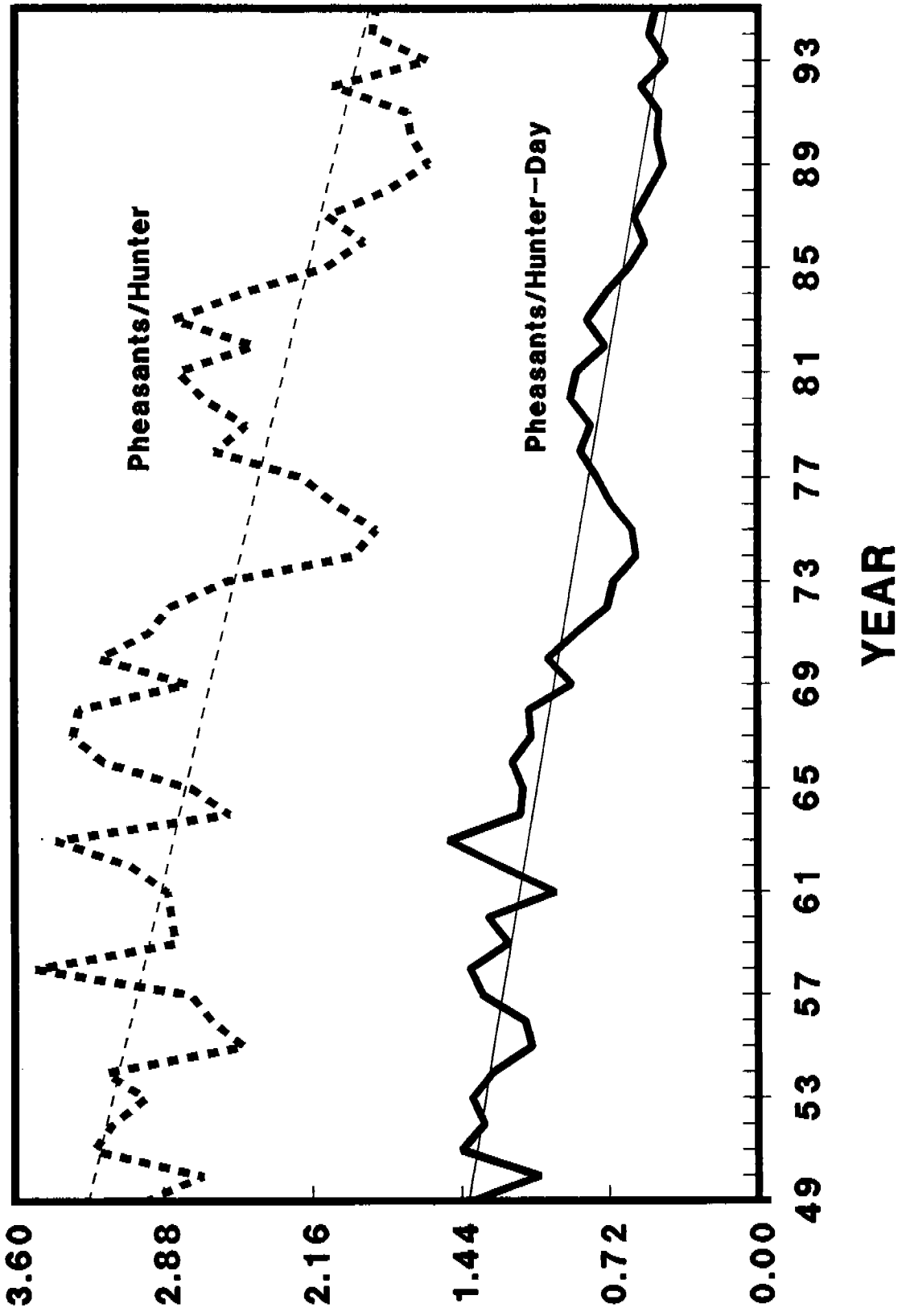
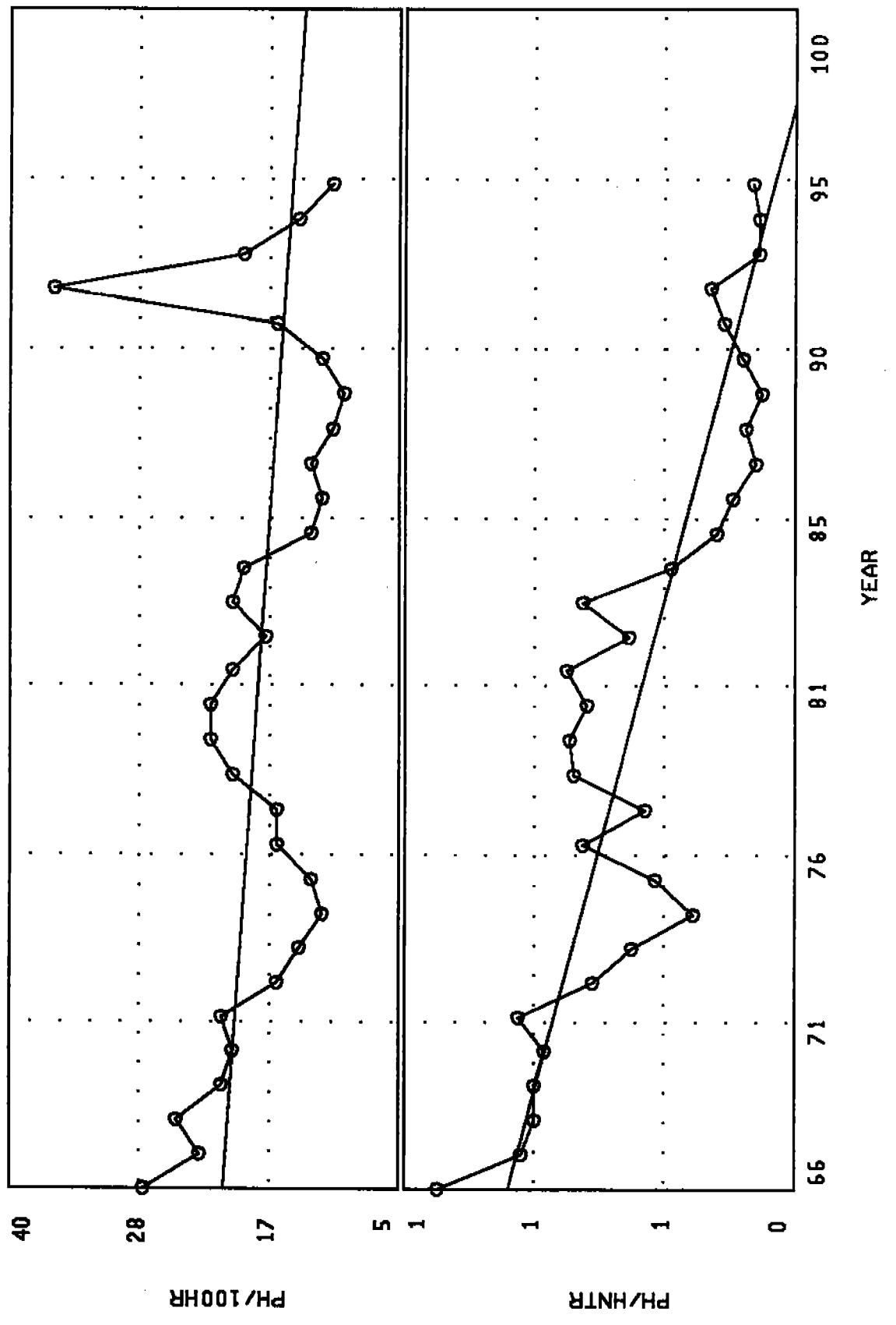


Figure 4. Statewide trends of pheasant hunter success rates, 1949-95.

FIGURES. PHEASANT FIELD BAG CHECK INDICES, 1966-95.



Field Bag Checks

Field bag checks provide an index of opening day or weekend hunter harvest success rates.

A summary of pheasant field bag check data for 1995 is shown in Table 14. The hunter success trend determined via bag checks since 1990 is found in Table 15 and Figure 5. A comparison of 1995 data, on a statewide basis, to 1994 and the previous 10-year (1985-94) average follow:

	<u>1995</u>	Percent change from <u>1994</u>	Percent change from <u>Average</u>
Total hunters checked	634	+222	-62
Total hours hunted	1,891	+334	-59
Pheasants per hunter (complete hunts)	0.33	+6	-10
Pheasants bagged per 100 hours	11	-21	-29
Average hours per hunter-day (complete hunts)	2.98	+35	+14
Hours hunted per pheasant bagged (complete hunts)	8.96	+27	+23

Hunting pressure was up in most of Utah in 1995.

In 1995, hunters spent 35 percent more time afield on an average day. Hours hunted per pheasant bagged increased 27 percent.

Table 1. Summary of pheasant winter sex ratio counts, 1994-95.

Region and County	Roadside Observations			Flushing Observations			Effort Expended			Pheas. Obs./ 100 Hours of Road. Obs.	
	Cocks	Hens	Total	Hens/ Cocks/ 100 Hens	Cocks/ 100 Hens	Total	Hens/ Cocks/ 100 Hens	Vehicle Miles	Hours of Effort Vehicle		Walk Total
Northern Region											
Box Elder	-	-	-	-	-	-	-	-	-	-	-
Cache	-	-	-	-	-	-	-	-	-	-	-
Davis	-	-	-	-	-	-	-	-	-	-	-
Morgan	-	-	-	-	-	-	-	-	-	-	-
Rich	-	-	-	-	-	-	-	-	-	-	-
Summit	-	-	-	-	-	-	-	-	-	-	-
Weber	-	-	-	-	-	-	-	-	-	-	-
REGIONAL TOTALS	-	-	-	-	-	-	-	-	-	-	-
Central Region											
Juab	-	-	-	-	-	-	-	-	-	-	-
Salt Lake	-	-	-	-	-	-	-	-	-	-	-
Sanpete	-	-	-	-	-	-	-	-	-	-	-
Tooele	-	-	-	-	-	-	-	-	-	-	-
Utah	21	49	70	2.33	43	-	-	80	10	10	737
Wasatch	-	-	-	-	-	-	-	-	-	-	-
REGIONAL TOTALS	21	49	70	2.33	43	3	23	26	7.67	13	737
Southern Region											
Beaver	-	-	-	-	-	-	-	-	-	-	-
Iron	-	-	-	-	-	-	-	-	-	-	-
Kane	-	-	-	-	-	-	-	-	-	-	-
Millard	-	-	-	-	-	-	-	-	-	-	-
Plute	-	-	-	-	-	-	-	-	-	-	-
Sevier	-	-	-	-	-	-	-	-	-	-	-
Washington	-	-	-	-	-	-	-	-	-	-	-
Wayne	-	-	-	-	-	-	-	-	-	-	-
REGIONAL TOTALS	-	-	-	-	-	-	-	-	-	-	-
Northeastern Region											
Daggett	-	-	-	-	-	-	-	-	-	-	-
Duchesne	-	-	-	-	-	-	-	-	-	-	-
Uintah	-	-	-	-	-	-	-	-	-	-	-
REGIONAL TOTALS	-	-	-	-	-	-	-	-	-	-	-
Southeastern Region											
Carbon	-	-	-	-	-	-	-	-	-	-	-
Emery	-	-	-	-	-	-	-	-	-	-	-
Grand	-	-	-	-	-	-	-	-	-	-	-
San Juan	-	-	-	-	-	-	-	-	-	-	-
REGIONAL TOTALS	-	-	-	-	-	-	-	-	-	-	-
STATE TOTALS	21	49	70	2.33	43	3	23	26	7.67	13	737

Table 2. Trend of pheasant winter sex ratio counts, 1989-95.

Region and County	1989-90		1990-91		1991-92		1992-93		1993-94		1994-95		Average 1989-1994
	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	
Northern Region													
Box Elder	3.60	533	2.47	-	-	-	-	-	-	-	-	-	-
Cache	1.30	253	3.43	-	-	-	-	-	-	-	-	-	-
Davis	1.50	143	6.90	1,317	1.38	317	-	-	-	-	-	-	-
Morgan	-	-	-	-	-	-	-	-	-	-	-	-	-
Rich	-	-	-	-	-	-	-	-	-	-	-	-	-
Summit	-	-	-	-	-	-	-	-	-	-	-	-	-
Weber	3.30	30	3.11	-	4.52	1,055	2.33	333	-	-	-	-	-
REGIONAL TOTALS	2.10	321	3.48	4,183	3.66	794	2.33	333	-	-	-	-	2.39
Central Region													
Juab	2.10	1,100	3.56	2,050	-	-	-	-	-	-	-	-	-
Salt Lake	1.30	533	1.73	600	0.25	500	1.40	686	-	-	-	-	-
Sanpete	-	-	-	-	4.82	640	-	-	0.50	19	-	-	-
Tooele	0.80	2,600	-	-	2.50	2,100	3.30	-	-	-	-	-	-
Utah	2.60	1,016	4.98	1,787	1.99	2,329	1.82	-	3.91	974	2.33	737	-
Wasatch	-	-	-	-	-	-	-	-	-	-	-	-	-
REGIONAL TOTALS	1.70	1,119	4.22	1,541	2.27	1,706	2.24	18,857	3.81	841	2.33	737	2.85
Southern Region													
Beaver	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	-	-	-	-	-	-	-	-	-	-	-	-	-
Kane	-	-	-	-	-	-	-	-	-	-	-	-	-
Millard	-	-	2.21	2,033	-	-	2.87	800	-	-	-	-	-
Plute	-	-	-	-	-	-	-	-	-	-	-	-	-
Sevier	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	-	-	-	-	-	-	-	-	-	-	-	-
Wayne	-	-	-	-	-	-	-	-	-	-	-	-	-
REGIONAL TOTALS	-	-	2.21	2,033	-	-	2.87	800	-	-	-	-	1.27
Northeastern Region													
Daggett	-	-	-	-	-	-	-	-	-	-	-	-	-
Duchesne	0.80	550	1.75	200	1.21	525	0.89	1,700	-	-	-	-	-
Uintah	1.20	773	1.03	1,600	1.41	1,382	2.00	1,500	-	-	-	-	-
REGIONAL TOTALS	1.10	580	1.12	728	1.37	1,021	1.28	1,600	-	-	-	-	1.22
Southeastern Region													
Carbon	-	-	-	-	-	-	-	-	-	-	-	-	-
Emery	-	-	-	-	-	-	-	-	-	-	-	-	-
Grand	-	-	-	-	-	-	-	-	-	-	-	-	-
San Juan	-	-	-	-	-	-	-	-	-	-	-	-	-
REGIONAL TOTALS	-	-	-	-	-	-	-	-	-	-	-	-	-
STATE TOTALS	1.70	582	2.65	1,468	2.15	1,293	2.28	1,864	3.81	841	2.33	737	2.52
													1,170

Table 3. Pheasant summer inventory, 1995.

Region and County	No. Routes	Total Miles	Distinct Broods			Mixed Obs.			Adults w/o			Total Pheas./ Mile	Total Pheas.	Young/ Mile	Mean Brood	Young/ Ad. Hen	%Hens w/Young	
			Total	Hens	Young	Hens	Young	Hens	Young	Cocks	Hens							Young
Northern Region																		
Box Elder	3	160	3	3	20	1	3	4	3	7	23	4	34	0.23	0.16	6.67	3.29	57
Cache	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Davis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Morgan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rich	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Weber	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
REGIONAL TOTALS	3	160	3	3	20	1	3	4	3	7	23	4	34	0.23	0.16	6.67	3.29	57
Central Region																		
Juab	1	34	1	1	4	0	0	0	0	1	4	0	5	0.15	0.12	4.00	4.00	100
Salt Lake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sanpete	3	170	6	6	36	0	19	6	0	6	64	6	66	0.38	0.32	6.83	9.00	100
Tooele	1	36	0	0	0	0	0	0	0	0	0	0	0	0.00	-	-	-	-
Utah	3	215	27	27	132	4	22	11	9	40	164	11	205	0.96	0.72	4.89	3.86	78
Wasatch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
REGIONAL TOTALS	8	464	34	34	171	4	41	16	9	47	212	16	276	0.61	0.47	5.03	4.61	81
Southern Region																		
Beaver	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Garfield	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Millard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Piute	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sevier	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wayne	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
REGIONAL TOTALS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northeastern Region																		
Daggett	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duchesne	2	143.4	0	0	0	2	22	6	4	6	22	6	33	0.23	0.16	-	3.67	33
Uintah	2	142	4	4	24	2	12	6	0	6	36	6	48	0.34	0.25	6.00	6.00	100
REGIONAL TOTALS	4	285	4	4	24	4	34	11	4	12	68	11	81	0.28	0.20	6.00	4.83	67
Southeastern Region																		
Carbon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Emery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grand	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
San Juan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
REGIONAL TOTALS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STATE TOTALS	16	889	41	41	215	9	78	31	16	66	293	31	390	0.44	0.33	5.24	4.44	76

Table 4. Trend of pheasants observed per mile during summer roadside pheasant counts, 1985-95.

Region and County	Year											Average 1985-94
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Northern Region												
Box Elder	0.91	0.44	0.81	0.63	0.19	0.32	0.21	0.56	0.34	0.72	0.23	
Cache	0.03	0.01	0.29	0.13	0.23	0.08	0.41	0.59	1.09	--	--	
Davis	0.71	1.04	1.3	0.7	0.41	0.48	0.39	0.15	0.01	--	--	
Morgan	--	--	--	--	--	--	--	--	--	--	--	
Rich	--	--	--	--	--	--	--	--	--	--	--	
Summit	--	--	--	--	--	--	--	--	--	--	--	
Weber	--	0.86	--	--	0.52	1.26	0.48	1.05	--	--	--	
REGIONAL TOTALS	0.5	0.43	0.71	0.4	0.3	0.42	0.35	0.58	0.24	0.72	0.23	0.46
Central Region												
Juab	0.48	0.71	--	0.38	0.5	0.14	--	0.77	0.16	0.14	0.15	
Salt Lake	0.46	2.1	1.08	--	--	1.26	1.24	--	0.31	--	--	
Sanpete	1.97	1.15	1.63	1.18	1.7	1.23	0.85	0.67	0.35	0.53	0.38	
Tooele	--	0.2	0.08	0.15	--	0.17	0.55	0.14	--	0.27	0.00	
Utah	--	2.13	2.35	2	1	1.45	0.58	2.55	0.93	1.58	0.95	
Wasatch	--	--	--	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	1.35	1.61	1.79	1.42	1.6	1.09	0.73	1.79	0.48	0.92	0.61	1.27
Southern Region												
Beaver	0.63	0.23	0.08	0.17	--	--	--	--	--	--	--	
Garfield	--	--	--	--	--	--	--	--	--	--	--	
Iron	0.08	0.01	--	--	--	--	--	--	--	--	--	
Kane	--	--	--	--	--	--	--	--	--	--	--	
Millard	2.27	0.98	0.67	0.67	--	0.34	0.38	--	1.38	--	--	
Plute	--	--	--	--	--	--	--	--	--	--	--	
Sevier	0.62	1.82	1.95	1.3	--	--	--	--	--	--	--	
Washington	0.13	1.3	0.47	0.22	0.06	--	--	--	--	--	--	
Wayne	0.39	0.38	--	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	1.25	1.07	1.44	0.78	0.06	0.34	0.38	--	1.38	--	--	0.94
Northeastern Region												
Daggett	--	--	--	--	--	--	--	--	--	--	--	
Duchesne	0.16	0.44	0.38	0.58	0.39	0.93	0.69	0.22	0.14	0.22	0.23	
Uintah	0.35	0.46	0.55	0.45	0.24	0.52	0.29	0.18	0.18	0.36	0.34	
REGIONAL TOTALS	0.22	0.45	0.45	0.54	0.32	0.71	0.51	0.17	0.16	0.28	0.28	0.38
Southeastern Region												
Carbon	0.12	0.26	--	--	--	--	--	--	--	--	--	
Emery	0.93	0.73	0.72	1.06	1	0.61	0.28	0.56	0.39	--	--	
Grand	--	--	--	--	--	--	--	--	--	--	--	
San Juan	--	--	--	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	0.99	0.61	0.72	1.06	1	0.61	0.28	0.56	0.39	--	--	0.65
STATE TOTALS	0.81	0.8	1.1	0.81	0.71	0.71	0.51	0.75	0.40	0.68	0.44	0.73

Table 6. Trend of young observed per mile during summer roadside pheasant counts, 1986-96.

Region and County	Year										Average 1986-94
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	
Northern Region											
Box Elder	0.65	0.29	0.52	0.39	0.16	0.27	0.14	0.41	0.28	0.52	0.16
Cache	0.02	0.00	0.25	0.09	0.14	0.06	0.23	0.42	0.94	--	--
Davis	0.36	0.85	0.98	0.52	0.22	0.31	0.26	0.04	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--
Weber	--	0.76	--	--	0.39	0.97	0.30	0.77	--	--	--
REGIONAL TOTALS	0.33	0.32	0.55	0.28	0.20	0.32	0.21	0.41	0.19	0.52	0.16
Central Region											
Juab	0.39	0.67	--	0.17	0.08	0.09	--	0.62	0.08	0.08	0.12
Salt Lake	0.31	1.62	0.79	--	--	0.97	0.93	--	0.24	--	--
Sanpete	1.64	0.90	1.23	0.96	1.30	0.91	0.67	0.53	0.28	0.34	0.32
Tooele	--	0.08	0.07	0.07	--	0.10	0.53	0.11	--	0.10	--
Utah	--	1.68	1.81	1.57	1.00	1.15	0.49	1.97	0.69	1.12	0.72
Wasatch	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	1.09	1.26	1.37	1.11	1.10	0.87	0.59	1.38	0.37	0.63	0.47
Southern Region											
Beaver	0.51	0.14	0.07	0.10	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--
Iron	0.06	--	0.00	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--
Millard	0.20	0.76	1.55	0.50	--	0.31	0.28	--	1.18	--	--
Plute	--	--	--	--	--	--	--	--	--	--	--
Sevier	1.26	1.48	1.54	0.95	--	--	--	--	--	--	--
Washington	--	0.86	0.22	0.16	--	--	--	--	--	--	--
Wayne	0.28	0.19	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	1.03	0.84	1.12	0.57	--	0.31	0.28	--	1.18	--	0.59
Northeastern Region											
Daggett	--	--	--	--	--	--	--	--	--	--	--
Duchesne	0.07	0.29	0.25	0.32	0.20	0.58	0.42	0.08	0.02	0.10	0.15
Uintah	0.29	0.33	0.40	0.30	0.14	0.35	0.21	0.10	0.13	0.25	0.25
REGIONAL TOTALS	0.14	0.30	0.31	0.32	0.17	0.46	0.37	0.08	0.07	0.17	0.20
Southeastern Region											
Carbon	0.02	0.15	--	--	--	--	--	--	--	--	--
Emery	0.63	0.56	0.69	0.86	1.00	0.43	0.22	0.43	0.20	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	0.42	0.34	0.58	0.86	1.00	0.43	0.22	0.43	0.29	--	0.51
STATE TOTALS	0.60	0.61	0.79	0.63	0.62	0.48	0.38	0.55	0.30	0.46	0.33

Table 6. Trend of young per adult hen ratios found during summer roadside pheasant counts, 1985-96.

Region and County	Year										Average 1986-94	
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994		1995
Northern Region												
Box Elder	3.63	2.38	4.42	2.21	7.00	5.86	1.92	3.04	4.67	3.32	3.29	
Cache	1.60	--	7.17	2.33	2.60	5.50	1.57	3.38	6.00	--	--	
Davis	1.26	6.92	3.30	6.86	1.30	2.41	3.00	1.00	--	--	--	
Morgan	--	--	--	--	--	--	--	--	--	--	--	
Rich	--	--	--	--	--	--	--	--	--	--	--	
Summit	--	--	--	--	--	--	--	--	--	--	--	
Weber	--	7.33	--	--	4.80	5.50	2.60	3.35	--	--	--	
REGIONAL TOTALS	2.60	3.92	4.18	3.44	2.90	3.86	2.02	3.05	4.80	3.32	3.29	3.41
Central Region												
Juab	4.33	4.00	--	2.00	0.23	4.00	--	8.00	1.00	1.50	4.00	
Salt Lake	3.13	5.10	3.88	--	--	3.80	4.22	--	10.00	--	--	
Sanpete	6.10	3.98	3.25	4.48	3.20	3.34	4.17	4.60	4.77	2.15	9.00	
Tooele	--	1.50	4.00	2.00	--	2.00	--	3.00	--	0.60	--	
Utah	--	4.16	4.18	3.94	3.80	4.31	6.41	4.22	3.76	2.85	3.85	
Wasatch	--	--	--	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	5.61	4.18	3.89	4.00	4.70	3.92	5.27	4.28	3.92	2.53	4.51	4.23
Southern Region												
Beaver	5.11	2.60	6.00	1.80	--	--	--	--	--	--	--	
Garfield	--	--	--	--	--	--	--	--	--	--	--	
Iron	3.00	--	--	--	--	--	--	--	--	--	--	
Kane	--	--	--	--	--	--	--	--	--	--	--	
Millard	4.33	4.04	3.99	3.64	--	15.00	4.86	--	7.23	--	--	
Plute	--	--	--	--	--	--	--	--	--	--	--	
Sevier	4.58	5.22	5.14	3.77	--	--	--	--	--	--	--	
Washington	--	2.78	1.11	3.50	--	--	--	--	--	--	--	
Wayne	3.17	2.43	--	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	5.92	4.43	4.32	3.61	--	15.00	4.86	--	7.23	--	6.77	
Northeastern Region												
Daggett	--	--	--	--	--	--	--	--	--	--	--	
Duchesne	3.00	3.73	3.40	2.36	1.68	2.60	3.81	0.86	1.00	3.40	3.67	
Uintah	11.50	4.13	3.65	3.67	2.33	3.30	3.33	1.70	3.33	6.60	6.00	
REGIONAL TOTALS	5.83	3.88	3.52	2.64	2.01	2.82	3.73	1.02	2.40	5.00	4.83	3.28
Southeastern Region												
Carbon	0.50	3.00	--	--	--	--	--	--	--	--	--	
Emery	4.17	5.15	6.63	6.42	3.60	3.50	5.00	6.50	3.71	--	--	
Grand	--	--	--	--	--	--	--	--	--	--	--	
San Juan	--	--	--	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	3.80	4.04	6.63	6.42	3.60	3.50	5.00	6.50	3.71	--	4.80	
STATE TOTALS	5.04	4.20	4.08	3.68	2.95	3.70	3.81	3.40	4.31	2.84	4.44	3.80

Table 7. Trend of the percent of hens observed with broods during summer roadside pheasant counts, 1985-95.

Region and County	Year											Average	
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1985-94	1985-94
Northern Region													
Box Elder	74	48	75	64	100	100	83	74	89	88	67		
Cache	50	--	83	50	56	67	70	38	100	--	--		
Davis	42	85	89	86	47	50	50	0	--	--	--		
Morgan	--	--	--	--	--	--	--	--	--	--	--		
Rich	--	--	--	--	--	--	--	--	--	--	--		
Summit	--	--	--	--	--	--	--	--	--	--	--		
Weber	--	100	--	--	100	80	80	85	--	--	--		
REGIONAL TOTALS	60	62	82	67	76	74	69	67	90	88	57	68	71
Central Region													
Juab	100	100	--	50	6	100	--	--	100	50	100		
Salt Lake	63	90	88	--	--	67	89	--	100	--	--		
Sanpete	82	76	85	88	81	78	83	90	85	59	100		
Tooele	--	50	100	50	--	--	--	--	--	40	--		
Utah	--	86	94	81	86	89	76	86	94	76	78		
Wasatch	--	--	--	--	--	--	--	--	--	--	--		
REGIONAL TOTALS	66	84	91	82	81	81	80	87	92	68	81	68	77
Southern Region													
Beaver	89	80	100	40	--	--	--	--	--	--	--		
Garfield	--	--	--	--	--	--	--	--	--	--	--		
Iron	100	--	--	--	--	--	--	--	--	--	--		
Kane	--	--	--	--	--	--	--	--	--	--	--		
Millard	94	88	86	86	--	100	100	--	85	--	--		
Piute	--	--	--	--	--	--	--	--	--	--	--		
Sevier	88	87	86	69	--	--	--	--	--	--	--		
Washington	--	64	22	50	--	--	--	--	--	--	--		
Wayne	83	100	--	--	--	--	--	--	--	--	--		
REGIONAL TOTALS	85	88	82	74	--	100	100	--	85	--	--	--	86
Northeastern Region													
Daggett	--	--	--	--	--	--	--	--	--	--	--		
Duchesne	75	73	96	39	61	60	84	--	50	60	33		
Uintah	75	73	91	75	56	79	100	--	67	100	100		
REGIONAL TOTALS	76	73	94	46	59	67	86	--	60	80	67	80	70
Southeastern Region													
Carbon	50	66	--	--	--	--	--	--	--	--	--		
Emery	67	92	100	100	64	64	100	83	67	--	--		
Grand	--	--	--	--	--	--	--	--	--	--	--		
San Juan	--	--	--	--	--	--	--	--	--	--	--		
REGIONAL TOTALS	66	91	100	100	64	64	100	83	67	--	--	80	80
STATE TOTALS	62	83	87	72	64	76	79	85	85	69	76	85	76

Table 8. Trend of average brood size for pheasants, 1985-95.

Region and County	Year										Average 1986-94	
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994		1995
Northern Region												
Box Elder	5.77	5.33	6.00	4.80	8.00	5.40	3.20	4.00	5.40	6.78	6.67	
Cache	3.00	--	4.80	4.00	4.00	4.50	5.20	4.67	6.00	--	--	
Davis	3.50	5.12	4.40	6.60	4.50	4.20	6.00	--	--	--	--	
Morgan	--	--	--	--	--	--	--	--	--	--	--	
Rich	--	--	--	--	--	--	--	--	--	--	--	
Summit	--	--	--	--	--	--	--	--	--	--	--	
Weber	6.33	--	--	5.50	4.30	--	4.33	3.94	--	--	--	
REGIONAL TOTALS	5.11	5.41	6.10	5.40	5.40	5.00	4.53	4.03	5.50	6.78	6.67	5.23
Central Region												
Juab	4.33	4.67	--	4.00	4.00	4.00	--	8.00	2.00	3.00	4.00	
Salt Lake	5.00	5.70	3.80	3.80	--	5.00	4.25	--	7.00	--	--	
Sanpete	8.28	5.10	4.80	5.80	4.20	4.40	5.00	4.00	5.89	4.18	5.83	
Tooele	--	3.00	4.00	4.00	--	3.00	--	--	--	1.00	--	
Utah	--	4.75	4.90	4.80	6.10	5.00	5.13	5.44	3.78	4.13	4.89	
Wasatch	--	--	--	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	7.42	4.89	4.80	5.00	4.40	4.70	4.92	5.35	4.32	4.06	6.03	4.98
Southern Region												
Beaver	6.75	3.25	6.00	4.50	--	--	--	--	--	--	--	
Garfield	--	--	--	--	--	--	--	--	--	--	--	
Iron	--	--	--	--	--	--	--	--	--	--	--	
Kane	--	--	--	--	--	--	--	--	--	--	--	
Millard	40.63	3.72	5.30	4.90	--	3.80	5.40	--	--	--	--	
Piute	--	--	--	--	--	--	--	--	--	--	--	
Sevier	5.17	5.89	5.80	5.60	--	--	--	--	--	--	--	
Washington	--	4.14	5.00	7.00	--	--	--	--	--	--	--	
Wayne	3.33	2.25	--	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	7.35	4.70	5.60	5.30	--	3.80	5.40	--	--	--	--	4.60
Northeastern Region												
Daggett	--	--	--	--	--	--	--	--	--	--	--	
Duchesne	4.00	5.75	3.90	5.30	2.70	5.30	4.50	0.88	2.00	5.67	--	
Uintah	6.33	5.71	4.40	5.30	4.20	4.90	3.33	3.00	4.75	6.60	6.00	
REGIONAL TOTALS	4.78	5.74	4.10	5.30	3.60	5.10	4.18	0.80	3.83	6.25	6.00	4.36
Southeastern Region												
Carbon	1.00	--	--	--	--	--	--	--	--	--	--	
Emery	5.20	6.89	5.00	7.10	5.70	5.60	4.50	7.00	6.50	--	--	
Grand	--	--	--	--	--	--	--	--	--	--	--	
San Juan	--	--	--	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	4.82	5.46	5.00	7.10	5.70	5.60	4.50	7.00	6.60	--	6.74	
STATE TOTALS	6.71	4.84	5.10	6.30	4.60	4.80	4.61	3.93	6.81	4.68	6.24	6.05

Table 9. Summary of pheasant hunter success and distribution of harvest and hunting pressure by region and county, 1995.

REGION AND COUNTY	SAMPLE SIZE*	HUNTER-DAYS AFIELD	BIRDS BAGGED	BIRDS PER HUNTER-DAY	% OF PRESSURE	% OF HARVEST
NORTHERN REGION						
Box Elder	323	18,446	10,496	0.57	12.92	14.74
Cache	253	15,336	8,222	0.54	10.74	11.55
Davis	167	9,952	2,352	0.24	6.97	3.30
Morgan	3	136	19	0.14	0.10	0.03
Rich	4	77	38	0.50	0.05	0.05
Summit	3	77	58	0.75	0.05	0.08
Weber	261	15,783	7,056	0.45	11.06	9.91
REGIONAL TOTALS	1,014	59,811	28,243	0.47	41.90	39.67
CENTRAL REGION						
Juab	87	3,771	2,663	0.71	2.64	3.74
Salt Lake	65	3,634	1,088	0.30	2.55	1.53
Sanpete	105	4,859	1,652	0.34	3.40	2.32
Tooele	61	2,352	1,185	0.50	1.65	1.67
Utah	491	33,025	18,097	0.55	23.13	25.42
Wasatch	8	349	524	1.50	0.25	0.74
REGIONAL TOTALS	817	47,993	25,211	0.53	33.62	35.41
SOUTHERN REGION						
Beaver	20	1,224	291	0.24	0.86	0.41
Garfield	2	77	38	0.50	0.05	0.05
Iron	15	1,069	272	0.25	0.75	0.38
Kane	0	0	0	0.00	0.00	0.00
Millard	136	7,386	4,295	0.58	5.17	6.03
Piute	4	77	38	0.50	0.05	0.05
Sevier	96	5,559	1,496	0.27	3.89	2.10
Washington	31	1,710	777	0.45	1.20	1.09
Wayne	2	155	77	0.50	0.11	0.11
REGIONAL TOTALS	306	17,261	7,289	0.42	12.09	10.24
NORTHEASTERN REGION						
Daggett	0	0	0	0.00	0.00	0.00
Duchesne	103	6,395	5,773	0.90	4.48	8.11
Uintah	81	4,354	2,138	0.49	3.05	3.00
REGIONAL TOTALS	184	10,749	7,911	0.74	7.53	11.11
SOUTHEASTERN REGION						
Carbon	35	2,138	758	0.35	1.50	1.06
Emery	76	3,712	1,516	0.41	2.60	2.13
Grand	7	174	0	0.00	0.12	0.00
San Juan	1	19	0	0.00	0.01	0.00
REGIONAL TOTALS	119	6,045	2,274	0.38	4.23	3.19
Unknown	12	894	272	0.30	0.63	0.38
STATE TOTALS	2,452	142,755	71,202	0.50	100.00	100.00

*Total hunter trips from questionnaire returns.

Table 10. Summary of pheasants bagged per hunter-day by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	0.49	0.40	0.58	0.53	0.64	0.44	0.55	0.57
Cache	0.47	0.32	0.46	0.51	0.59	0.48	0.60	0.54
Davis	0.32	0.28	0.26	0.34	0.29	0.21	0.34	0.24
Morgan	1.71	0.40	(0.67)	(0.15)	(0.00)	0.00	1.06	0.14
Rich	(0.18)	(0.17)	0.00	0.00	(0.00)	0.33	1.00	0.50
Summit	0.00	(0.67)	0.00	(0.05)	(0.00)	0.00	0.00	0.75
Weber	0.34	0.29	0.34	0.37	0.39	0.20	0.29	0.45
REGIONAL TOTALS	0.40	0.32	0.42	0.44	0.50	0.33	0.46	0.47
Central Region								
Juab	0.49	0.38	0.39	0.57	0.66	0.40	0.49	0.71
Salt Lake	0.26	0.32	0.51	0.32	0.39	0.53	0.55	0.30
Sanpete	0.80	0.65	0.57	0.59	0.60	0.44	0.59	0.34
Tooele	0.31	0.29	0.36	0.44	0.24	0.15	0.33	0.50
Utah	0.64	0.58	0.53	0.55	0.65	0.48	0.58	0.55
Wasatch	(0.60)	(1.33)	0.00	0.68	(0.30)	0.50	2.00	1.50
REGIONAL TOTALS	0.50	0.54	0.51	0.53	0.59	0.45	0.56	0.53
Southern Region								
Beaver	0.41	0.39	0.68	0.55	0.38	0.28	0.39	0.24
Garfield	2.75	0.71	0.00	0.00	(0.00)	0.00	1.00	0.50
Iron	0.23	0.34	0.34	0.29	0.26	0.29	0.44	0.25
Kane	0.00	0.00	0.00	0.00	(0.00)	0.00	0.00	0.00
Millard	0.60	0.66	0.74	0.59	0.76	0.58	0.62	0.58
Piute	0.42	1.12	(0.50)	(0.10)	(1.00)	0.25	0.63	0.50
Sevier	0.57	0.45	0.42	0.36	0.49	0.32	0.41	0.27
Washington	0.39	0.33	0.38	0.21	0.61	0.93	0.56	0.45
Wayne	0.63	(0.46)	0.00	(0.50)	(1.14)	0.29	0.57	0.50
REGIONAL TOTALS	0.77	0.52	0.56	0.45	0.62	0.47	0.52	0.42
Northeastern Region								
Daggett	(0.20)	0.00	0.00	0.00	(0.00)	1.20	0.00	0.00
Duchesne	0.90	0.62	0.78	0.66	0.79	0.77	0.85	0.90
Uintah	0.64	0.42	0.57	0.47	0.68	0.44	0.80	0.49
REGIONAL TOTALS	0.56	0.53	0.69	0.58	0.74	0.67	0.83	0.74
Southeastern Region								
Carbon	0.51	0.39	0.30	0.22	0.48	0.57	0.30	0.35
Emery	0.68	0.44	0.44	0.50	0.53	0.52	0.62	0.41
Grand	(0.20)	(0.33)	(0.33)	(0.48)	(1.40)	0.57	0.61	0.00
San Juan	1.50	(2.00)	0.00	(0.36)	(1.00)	0.00	0.00	0.00
REGIONAL TOTALS	0.63	0.43	0.39	0.39	0.53	0.53	0.00	0.38
Unknown Counties	0.54	0.60	0.00	0.00	0.00	1.45	0.53	0.30
STATE TOTALS	0.53	0.46	0.49	0.48	0.57	0.45	0.67	0.50

() Data may be biased because small sample size inflated county harvest beyond reasonable estimate for known pheasant populations.

Table 11. Percentage distribution of pheasant harvest by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	8.30	7.65	12.70	11.67	12.59	9.93	12.03	14.74
Cache	5.09	4.01	7.53	9.68	9.76	8.04	11.72	11.55
Davis	5.48	4.80	3.96	4.38	2.92	2.82	3.89	3.30
Morgan	0.20	0.15	(0.21)	(0.07)	(0.00)	0.00	0.44	0.03
Rich	(0.03)	(0.03)	0.00	0.00	(0.00)	0.06	0.05	0.05
Summit	0.00	(0.05)	0.00	0.02	(0.00)	0.00	0.00	0.08
Weber	7.42	7.40	8.39	(8.03)	6.59	5.13	5.55	9.91
REGIONAL TOTALS	26.55	24.09	32.79	33.85	31.86	25.98	33.67	39.67
Central Region								
Juab	1.94	1.69	2.09	2.47	3.21	2.16	3.05	3.74
Salt Lake	2.18	2.67	4.30	2.23	2.51	2.76	2.00	1.53
Sanpete	10.63	10.76	7.92	5.94	5.70	4.32	5.81	2.32
Tooele	2.20	2.03	2.19	1.72	1.24	0.93	1.10	1.67
Utah	25.83	27.35	23.44	27.43	28.75	24.51	25.18	25.42
Wasatch	(0.15)	(0.51)	0.00	0.50	(0.06)	0.06	0.05	0.74
REGIONAL TOTALS	42.96	45.02	39.94	40.30	41.47	34.74	37.18	35.41
Southern Region								
Beaver	0.56	0.36	0.73	0.69	0.31	0.48	0.74	0.41
Garfield	0.18	0.13	0.00	0.00	(0.00)	0.00	0.03	0.05
Iron	0.25	0.62	0.50	0.55	0.21	0.39	0.72	0.38
Kane	0.00	0.00	0.00	0.00	(0.00)	0.00	0.00	0.00
Millard	6.03	7.99	8.71	7.62	8.04	7.71	7.72	6.03
Piute	0.18	0.74	(0.08)	(0.02)	(0.19)	0.06	0.13	0.05
Sevier	6.34	5.75	3.94	3.62	3.83	4.53	3.79	2.10
Washington	0.22	1.05	0.78	0.43	0.46	2.52	1.64	1.09
Wayne	0.08	(0.15)	0.00	(0.02)	(0.17)	0.06	0.20	0.11
REGIONAL TOTALS	13.88	16.80	14.73	12.96	13.19	15.75	14.99	10.24
Northeastern Region								
Daggett	(0.05)	0.00	0.00	0.00	(0.00)	0.18	0.00	0.00
Duchesne	6.34	5.86	5.71	5.73	5.97	8.49	4.40	8.11
Uintah	3.91	3.16	3.15	3.07	3.58	2.40	3.38	3.00
REGIONAL TOTALS	10.30	9.01	8.86	8.79	9.55	11.07	7.78	11.11
Southeastern Region								
Carbon	1.48	1.90	0.76	0.84	1.28	2.19	1.00	1.06
Emery	3.93	2.88	2.76	2.92	2.44	5.10	4.96	2.13
Grand	(0.01)	(0.08)	(0.16)	(0.24)	(0.14)	0.12	0.36	0.00
San Juan	0.10	(0.15)	0.00	(0.10)	0.06	0.00	0.00	0.00
REGIONAL TOTALS	5.53	5.01	3.68	4.10	3.94	7.41	6.32	3.19
Unknown Counties	0.75	0.08	0.00	0.00	0.00	5.04	0.05	0.38
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

() Data may be biased because small sample size inflated county harvest beyond reasonable estimate for known pheasant populations.

Table 12. Percentage distribution of pheasant hunting pressure by county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	8.91	8.77	10.67	10.66	11.21	10.00	11.49	12.92
Cache	5.69	5.68	7.98	9.18	9.40	7.55	10.33	10.74
Davis	8.95	7.85	7.32	6.31	5.78	6.01	6.06	6.97
Morgan	0.06	0.18	(0.15)	(0.23)	(0.07)	0.15	0.22	0.10
Rich	0.09	(0.07)	(0.01)	(0.02)	(0.00)	0.08	0.03	0.05
Summit	0.09	(0.04)	(0.01)	(0.23)	(0.00)	0.01	0.01	0.05
Weber	11.42	11.59	12.13	10.47	9.64	11.34	10.23	11.06
REGIONAL TOTALS	35.24	34.17	38.29	37.10	36.11	35.14	38.37	41.90
Central Region								
Juab	2.11	2.02	2.61	2.11	2.79	2.41	3.26	2.64
Salt Lake	4.54	3.84	4.11	3.41	3.71	2.35	1.91	2.55
Sanpete	7.04	7.55	6.81	4.87	5.44	4.41	5.24	3.40
Tooele	3.80	3.17	2.95	1.91	2.99	2.71	1.75	1.65
Utah	21.42	21.39	21.57	24.00	25.12	22.66	22.98	23.13
Wasatch	(0.13)	(0.18)	0.00	0.36	(0.12)	0.05	0.01	0.25
REGIONAL TOTALS	39.06	38.15	38.06	36.66	40.18	34.59	35.15	33.62
Southern Region								
Beaver	0.72	0.42	0.52	0.61	0.47	0.78	1.02	0.86
Garfield	0.03	0.08	(0.08)	0.01	(0.00)	0.00	0.01	0.05
Iron	0.58	0.83	0.71	0.92	0.45	0.60	0.85	0.75
Kane	0.00	(0.01)	0.00	0.00	(0.02)	0.00	0.00	0.00
Millard	5.29	5.52	5.74	6.27	6.06	5.97	6.58	5.17
Piute	0.23	0.30	(0.08)	(0.12)	(0.11)	0.11	0.11	0.05
Sevier	5.91	5.79	4.58	4.86	4.48	6.25	4.89	3.89
Washington	0.29	1.47	1.02	1.01	0.43	1.21	1.56	1.20
Wayne	0.07	(0.15)	(0.06)	(0.02)	(0.08)	0.09	0.19	0.11
REGIONAL TOTALS	13.16	14.58	12.80	13.82	12.10	15.01	15.20	12.09
Northeastern Region								
Daggett	(0.13)	(0.01)	(0.01)	0.00	(0.00)	0.07	0.00	0.00
Duchesne	3.74	4.27	3.55	4.22	4.33	4.95	2.73	4.48
Uintah	3.22	3.41	2.71	3.16	2.99	2.43	2.23	3.05
REGIONAL TOTALS	7.10	7.70	6.28	7.38	7.32	7.45	4.97	7.53
Southeastern Region								
Carbon	1.92	1.76	1.54	2.21	1.51	1.73	1.75	1.50
Emery	3.71	3.05	2.99	2.80	2.63	4.37	4.21	2.60
Grand	0.25	0.04	(0.11)	(0.24)	(0.06)	0.09	0.31	0.12
San Juan	0.03	(0.04)	(0.01)	(0.13)	(0.04)	0.05	0.00	0.01
REGIONAL TOTALS	4.67	5.34	4.57	5.04	4.23	6.25	6.27	4.23
Unknown Counties	0.09	0.74	0.06	0.00	0.05	1.56	0.04	0.63
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

() Data may be biased because sample size inflated county harvest beyond reasonable estimate for known pheasant populations.

Table 13. Statewide summary of pheasant harvest statistics, 1948-95.

Year	Total Hunters	Total Harvest	Hunter-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
1983	77,847	220,074	265,731	0.83	2.83
1984	76,840	192,190	258,169	0.74	2.50
1985	69,889	146,807	233,328	0.63	2.10
1986	59,987	114,389	207,346	0.55	1.91
1987	57,118	119,236	199,470	0.60	2.09
1988	54,514	97,658	184,180	0.53	1.79
1989	50,382	80,769	177,364	0.46	1.60
1990	47,025	78,944	161,634	0.49	1.68
1991	42,813	72,612	150,096	0.48	1.70
1992	41,640	85,803	150,244	0.57	2.06
1993	39,640	63,336	141,399	0.45	1.60
1994	36,705	68,698	129,872	0.53	1.87
1995	38,391	71,202	142,755	0.50	1.85
Totals					
(1948-95)	3,611,138	9,603,510	10,126,456	—	—
Averages					
(1948-94)	76,016	202,815	212,419	0.91	2.59

Table 14. Pheasant field bag check summary, 1995.

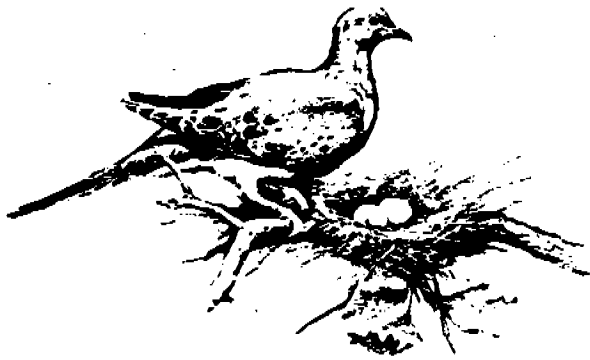
Region and County	All Hunts				Complete Hunts							
	Total Parties	Total Hunters	Total Hours	Total Birds	Birds/100 Hr	Complete Hunts	Total Hunters	Total Hours	Total Birds	Birds/100 Hr	Birds/Hunter	
Northern Region												
Box Elder	--	--	--	--	--	--	--	--	--	--	--	--
Cache	--	361	1,181	97	8	--	361	1,181	97	8	0.27	
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	361	1,181	97	8	--	361	1,181	97	8	0.27	
Central Region												
Juab	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--
Utah	288	589	1,505	135	9	75	149	458	48	10	0.32	
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	288	589	1,505	135	9	75	149	458	48	10	0.32	
Southern Region												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--
Northeastern Region												
Daggett	--	--	--	--	--	--	--	--	--	--	--	--
Duchesne	14	44	158	11	7	3	5	18	1	6	0.20	
Uintah	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	14	44	158	11	7	3	5	18	1	6	0.20	
Southeastern Region												
Carbon	--	--	--	--	--	--	--	--	--	--	--	--
Emery	89	202	378	84	22	50	119	234	65	28	0.55	
Grand	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	88	202	378	84	22	50	119	234	65	28	0.55	
STATE TOTALS	391	1,186	3,221	327	10	128	634	1,891	211	11	0.33	

Table 15. Pheasant hunter success trend as determined by field check, 1990-95.

Region and County	1990		1991		1992		1993		1994		1995	
	Birds/100 Hr	Birds/Hunter	Birds/100 Hr	Birds/Hunter	Birds/100 Hr	Birds/Hunter	Birds/100 Hr	Birds/Hunter	Birds/100 Hr	Birds/Hunter	Birds/100 Hr	Birds/Hunter
Northern Region												
Box Elder	18	0.27	100	1.00	--	0.30	--	0.23	--	--	--	--
Cache	7	0.23	40	0.57	--	--	12	0.63	--	--	8	0.27
Davis	8	0.19	--	0.00	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	27	1.00	--	--	--	--	--	--	--	--
REGIONAL TOTALS	33	0.27	24	0.30	--	0.30	60	0.26	--	--	8	0.27
Central Region												
Juab	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	13	0.38	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	17	1.05	13	0.52	12	0.50	--	--	--	--
Tooele	--	--	--	--	--	--	14	0.63	13	0.28	--	--
Utah	18	0.40	13	0.34	26	0.76	12	0.36	--	--	10	0.32
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	17	0.40	14	0.47	22	0.70	12	0.39	13	0.28	10	0.32
Southern Region												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	8	0.48	--	--	--	--	--	--	--	--	--	--
Plute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	7	0.38	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	8	0.05	--	--	--	--	7	0.38	--	--	--	--
Northeastern Region												
Daggett	--	--	--	--	--	--	--	--	--	--	--	--
Duchesne	16	0.84	13	0.50	16	1.13	--	--	--	--	6	0.20
Uintah	10	0.43	--	--	60	0.50	--	--	--	--	--	--
REGIONAL TOTALS	14	0.65	13	0.48	16	0.92	--	--	--	--	6	0.20
Southeastern Region												
Carbon	--	--	--	--	--	--	--	--	--	--	--	--
Emery	9	0.19	22	0.36	34	0.51	22	0.29	15	0.33	28	0.56
Grand	--	--	--	--	--	--	42	0.40	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	9	0.19	22	0.36	34	0.51	24	0.31	15	0.33	28	0.56
STATE TOTALS	12	0.36	16	0.42	36	0.46	19	0.31	14	0.31	11	0.33

MIGRATORY UPLAND GAME BIRDS

SUMMARY



Mourning Doves

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Band-tailed Pigeons



The breeding density index decreased 39 percent in 1995, and remained 43 percent below average.

Aging of wings indicated the juvenile per 100 adult ratio increased to 96 compared to 73 in 1994. Juvenile per 100 adult ratio remains 15 percent below the long-term average. Reproductive success was only fair in 1995.

Harvest statistics derived from the questionnaire indicated a slight increase in number of hunters and slight decrease in harvest compared to 1994.

Field bag checks indicated a decrease in hunter success on opening day. Hunters who participated hunted less hours per day than the previous year, and spent more time afield per dove harvested.

A free band-tailed pigeon hunting permit was required in 1995 to obtain mailing addresses for a questionnaire. One hundred two hunters obtained permits and 59 went afield. One hundred two pigeons were harvested. The majority of the harvest occurred on the LaSal Mountains.

MOURNING DOVE

Call Count Survey

Results of the 1995 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 U.S. Fish and Wildlife Service. However, indicated trends are similar (Figure 1). The following is a comparison of the results of the 1995 survey compared to 1994 and the average for the period 1964-1994:

	<u>1995</u>	Percent change from <u>1994</u>	Percent change from <u>Average</u>
Average doves heard per route	7.00	-39	-43
Average doves seen per route	3.80	-48	-72

Coo count data (doves heard per route) indicated decreased breeding activity in late May compared to 1994, and was 43 percent below the long-term average of doves heard per route.

Harvest

Hunter Questionnaire

Information obtained from the hunter questionnaire for 1995 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 and Figures 2 and 3. The following is a comparison of the harvest statistics for 1995 compared to 1994 and the previous 44-year average:

	<u>1995</u>	Percent change from <u>1994</u>	Percent change from <u>Average</u>
Mourning dove hunters	20,896	+1	-5
Mourning doves harvested	186,336	-4	-9
Hunter-days afield	80,688	+3	+17
Mourning doves per hunter-day	2.31	-7	-29
Mourning doves per hunter	8.92	-5	-1

Ninety percent confidence interval for overall dove harvest is +/- 11,242.02. Standard deviation is 3.037564.

Hunter success decreased slightly from 1994. Total harvest decreased 4 percent compared to 1994. Numbers of dove hunters increased 1 percent and hunter-days afield increased 3 percent. Doves per hunter decreased 5 percent from 1994.

Long-term harvest trends are depicted in Figure 2.

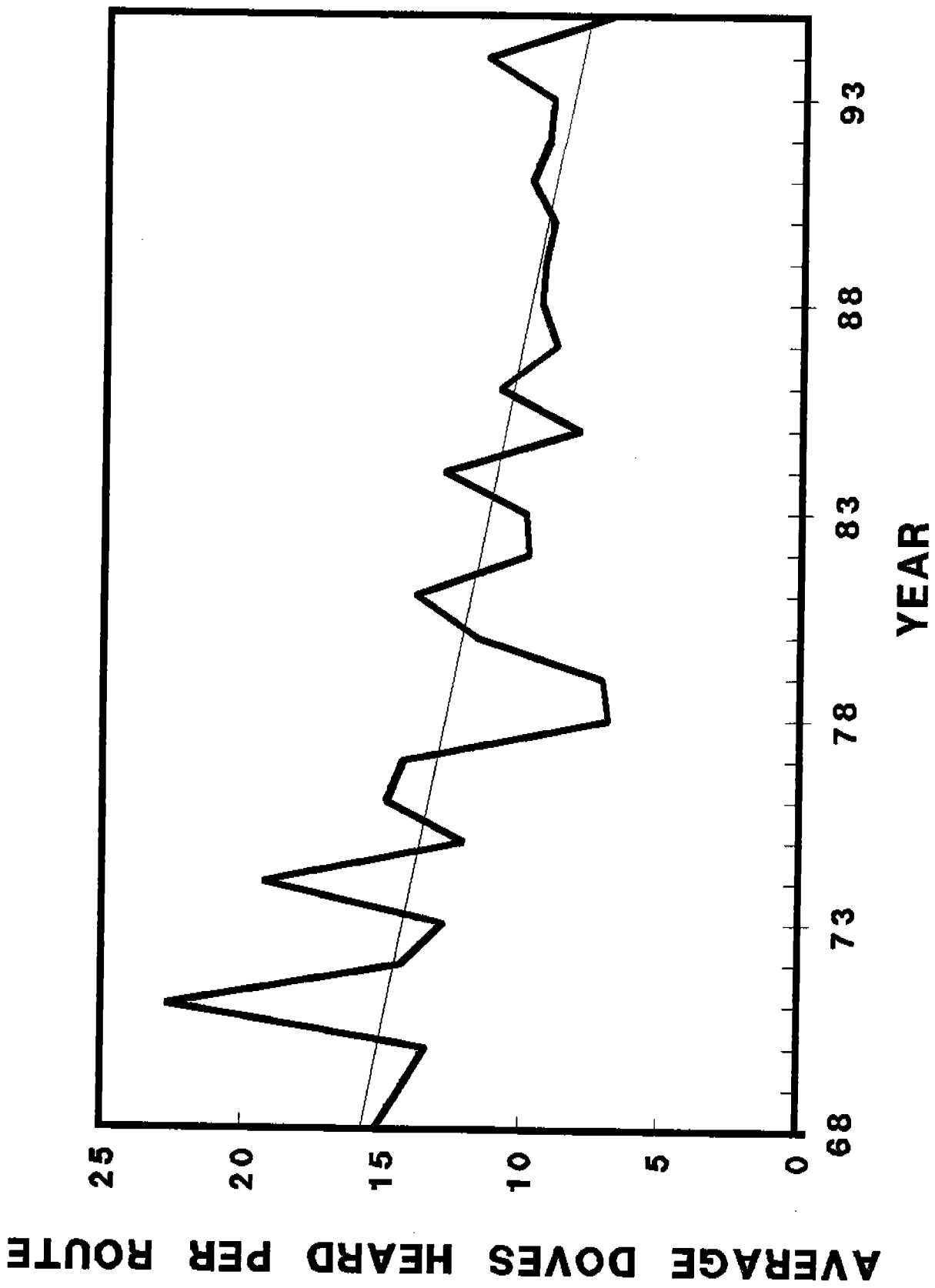


Figure 1. Mourning dove breeding density index trend, 1968-95.

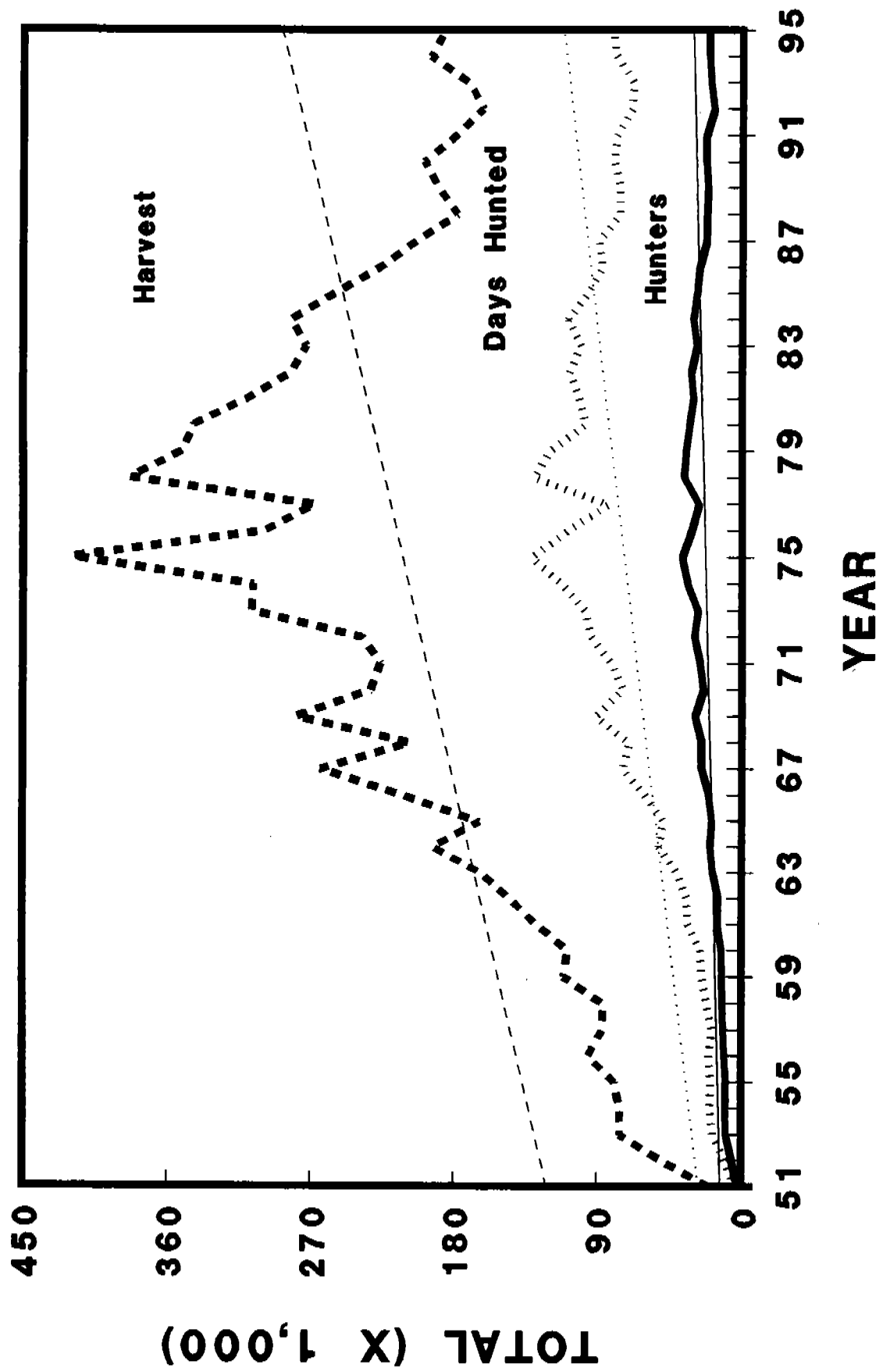


Figure 2. Statewide trends of mourning dove harvest statistics, 1951-95.

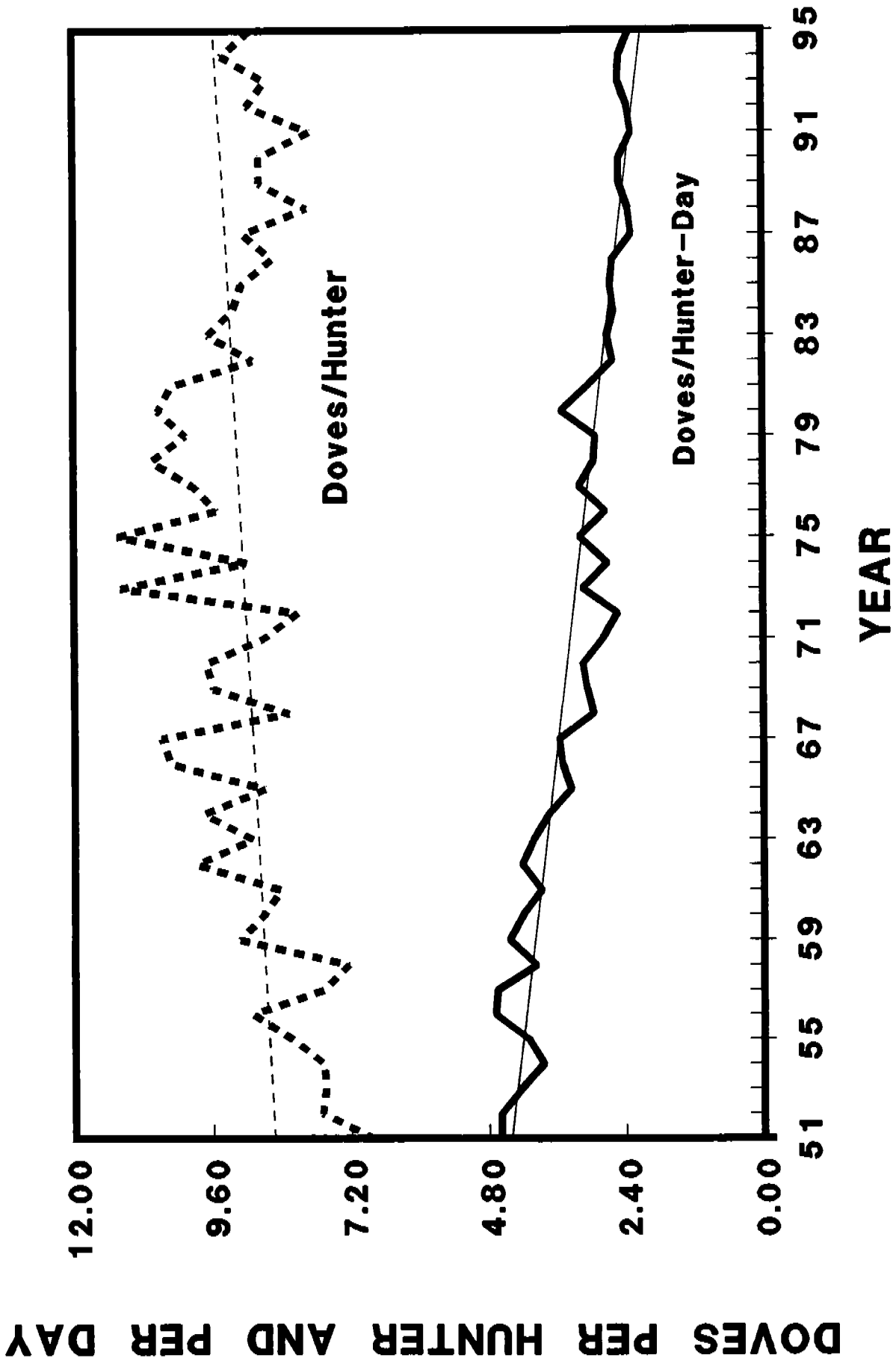
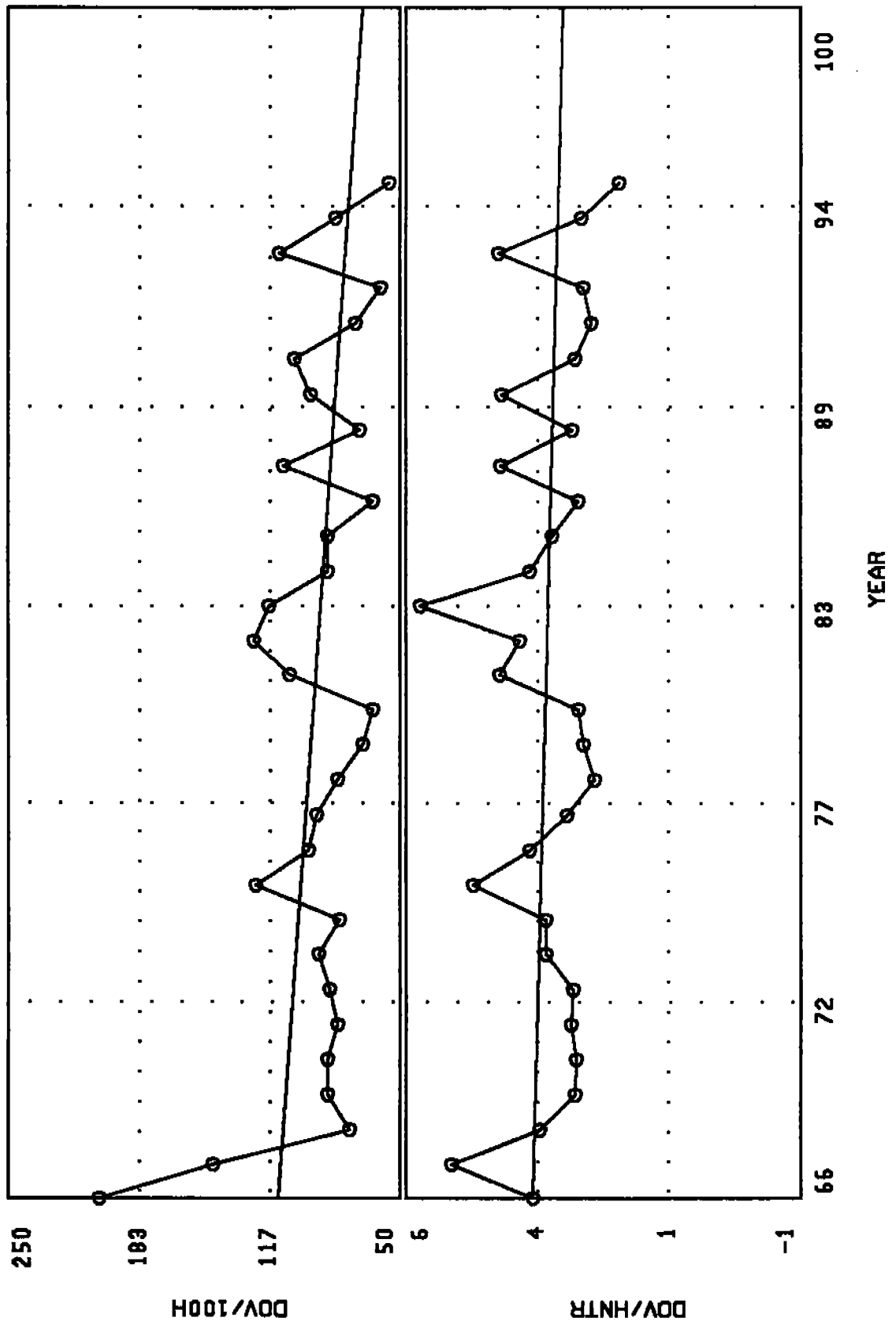


Figure 3. Statewide trends of mourning dove hunter success rates, 1951-95.

FIGURE 4. MOURNING DOVE FIELD BAG
CHECK INDICES, 1966-95.



Field Bag Checks

A summary of field bag check data for 1995 is shown in Table 8. Hunter success trends determined via this method are shown in Table 9. Results of the 1995 survey compared to 1994 and the 10-year average (1985-94) follow:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Total hunters checked	522	+31	-58
Total hours hunted	2,057	+50	-55
Doves per hunter (complete hunts)	2.22	-23	-35
Doves bagged per 100 hours (complete hunts)	56	-33	-36
Average hours per hunter-day (complete hunts)	3.94	-16	+2
Hours hunted per dove bagged (complete hunts)	1.78	+312	+80

Field bag checks indicated an opening day decrease in hunter success. The total number of hunters checked was up 21 percent from 1994. Dove hunters spent less time afield per hunter-day than in 1994, and more time was spent per dove bagged.

Age Composition of the Harvest

A summary of the age composition of harvested mourning doves from 1985 through 1995 is contained in Table 10. Hatching dates for immature doves harvested in Utah since 1986 are shown in Table 11.

Following is a comparison of data collected in 1995 compared to 1994 and long-term averages (1966-94):

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Sample size	1,855	+13	-37
Immatures/100 adults	96	+32	-15
Percent hatched August 3+	56.1	+5	+45
Percent hatched July 25+	31.8	+9	-59
Percent hatched before July 25	12.1	-29	-40

Sample size increased 13 percent in 1995. The 96 immatures per 100 adults in the harvest was up 32 percent from the previous year and 15 percent below the long-term average.

Reproductive success in 1995 was fair at best.

Table 1. Summary of the mourning dove call-count survey for 1995.

Region and County	Route Number	Total Doves Heard / Route	Total Doves Seen / Route
Northern Region			
Box Elder	R1500	4	6
Summit	R1020	1	0
REGIONAL TOTALS		5	6
Central Region			
Juab	R2830	23	2
REGIONAL TOTALS		23	2
Southern Region			
Beaver	R3820	5	4
Garfield	R1090	0	0
Iron	R4001	9	1
Millard	R3640	5	7
Sevier-Sanpete	R0370	3	18
Washington	R4311	14	3
Wayne-Sevier	R0660	4	1
REGIONAL TOTALS		40	34
Northeastern Region			
Duchesne	R0080	2	0
Uintah	R0220	5	5
REGIONAL TOTALS		7	5
Southeastern Region			
Emery	R0540	18	5
San Juan	R1171	12	5
San Juan	R1451	0	0
REGIONAL TOTALS		30	10
STATE TOTALS		105	57
STATE AVERAGES		7.00	3.80
PERCENT CHANGE (from previous year)		-39	-48

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, 1979-95.

Region and County	Route Number	Number of Doves Heard Per Route																
		1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region																		
Box Elder	R1500	9	4	8	--	1	0	0	1	2	0	0	1	1	4	5	7	4
Summit	R1020	6	5	4	5	--	1	4	5	3	5	3	3	3	4	4	4	1
REGIONAL TOTALS		15	9	12	5	1	1	4	6	5	5	3	4	4	8	9	11	5
Central Region																		
Juab	R2830	15	31	22	9	25	19	20	19	16	23	13	36	38	15	42	41	23
REGIONAL TOTALS		15	31	22	9	25	19	20	19	16	23	13	36	38	15	42	41	23
Southern Region																		
Beaver	R3820	5	9	7	13	3	6	6	4	17	13	14	9	--	3	1	16	5
Garfield	R1090	0	0	9	2	3	15	3	1	1	0	16	0	0	3	2	0	0
Iron	R4001	14	40	36	21	19	31	41	26	23	20	10	12	15	26	49	40	9
Millard	R3640	4	2	10	9	5	14	2	2	3	5	4	5	8	7	7	10	5
Sevier-Sanpete	R0370	0	3	0	0	3	5	4	4	3	3	2	6	2	5	2	6	3
Washington	R4311	4	3	6	0	14	1	0	6	7	1	6	12	14	12	16	20	14
Wayne-Sevier	R0660	2	5	14	4	--	17	3	2	0	3	7	5	0	3	6	0	4
REGIONAL TOTALS		29	62	82	49	47	89	59	45	54	45	59	49	39	59	83	92	40
Northeastern Region																		
Duchesne	R0080	2	1	13	7	0	1	8	3	4	8	13	11	7	3	2	--	2
Uintah	R0220	--	49	19	1	9	10	5	20	12	6	0	2	3	2	3	7	5
REGIONAL TOTALS		2	50	32	8	9	11	13	23	16	14	13	13	10	5	5	7	7
Southeastern Region																		
Emery	R0540	9	7	22	7	11	10	3	10	11	15	8	2	5	8	14	13	18
San Juan	R1171	28	14	38	26	30	57	25	60	31	37	43	31	38	34	21	8	12
San Juan	R1450	1	3	0	24	5	7	2	0	1	2	1	0	3	9	1	0	0
REGIONAL TOTALS		38	24	60	57	46	74	30	70	43	54	52	33	46	51	36	21	30
STATE TOTALS		99	176	208	128	128	194	126	163	134	141	140	135	137	138	175	172	105
STATE AVERAGES		6.60	11.73	13.87	8.53	8.53	12.93	8.40	10.87	8.93	9.40	9.33	9.00	9.79	9.20	11.67	11.47	7.00
PERCENT CHANGE (from previous year)		-4	78	18	-38	0	52	-35	29	-18	5	-1	-4	1	-8	27	-2	-39

Table 3. Summary of mourning dove hunter success and distribution of harvest and hunting pressure by region and county, 1995.

REGION AND COUNTY	SAMPLE SIZE*	HUNTER-DAYS AFIELD	BIRDS BAGGED	BIRDS PER HUNTER-DAY	% OF PRESSURE	% OF HARVEST
NORTHERN REGION						
Box Elder	160	8,727	25,367	2.91	10.82	13.61
Cache	78	5,656	10,069	1.78	7.01	5.40
Davis	38	2,138	4,470	2.09	2.65	2.40
Morgan	10	388	1,418	3.65	0.48	0.76
Rich	3	116	97	0.83	0.14	0.05
Summit	5	174	874	5.00	0.22	0.47
Weber	78	6,123	12,673	2.07	7.59	6.80
REGIONAL TOTALS	372	23,326	54,971	2.36	28.91	29.50
CENTRAL REGION						
Juab	112	4,276	14,345	3.35	5.30	7.70
Salt Lake	37	2,235	4,354	1.95	2.77	2.34
Sanpete	36	2,546	5,792	2.27	3.16	3.11
Tooele	114	6,783	13,684	2.02	8.41	7.34
Utah	241	15,958	27,505	1.72	19.78	14.76
Wasatch	10	933	2,060	2.21	1.16	1.11
REGIONAL TOTALS	550	32,734	67,742	2.07	40.57	36.36
SOUTHERN REGION						
Beaver	22	1,866	5,092	2.73	2.31	2.73
Garfield	8	427	1,360	3.18	0.53	0.73
Iron	32	2,779	10,866	3.91	3.44	5.83
Kane	1	38	388	10.00	0.05	0.21
Millard	84	4,470	15,375	3.44	5.54	8.25
Piute	5	330	855	2.59	0.41	0.46
Sevier	35	3,654	4,431	1.21	4.53	2.38
Washington	34	2,041	6,239	3.06	2.53	3.35
Wayne	2	174	252	1.44	0.22	0.14
REGIONAL TOTALS	223	15,783	44,863	2.84	19.56	24.08
NORTHEASTERN REGION						
Daggett	2	174	0	0.00	0.22	0.00
Duchesne	19	1,127	2,954	2.62	1.40	1.59
Uintah	48	3,401	6,822	2.01	4.22	3.66
REGIONAL TOTALS	69	4,704	9,777	2.08	5.83	5.25
SOUTHEASTERN REGION						
Carbon	15	1,282	2,313	1.80	1.59	1.24
Emery	28	1,380	2,896	2.10	1.71	1.55
Grand	6	369	174	0.47	0.46	0.09
San Juan	8	485	2,177	4.48	0.60	1.17
REGIONAL TOTALS	57	3,518	7,561	2.15	4.36	4.86
Unknown	15	622	1,418	2.28	0.77	0.76
STATE TOTALS	1,286	80,688	186,336	2.31	100.00	100.00

* Total hunter trips from questionnaire returns.

Table 4. Summary of mourning doves bagged per hunter-day by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	3.41	2.83	2.73	2.27	2.56	2.49	2.63	2.91
Cache	1.92	2.24	1.67	1.97	2.16	1.88	2.54	1.78
Davis	1.51	1.31	1.53	1.77	1.19	1.39	1.26	2.09
Morgan	2.36	1.03	1.73	2.31	2.47	0.88	2.93	3.65
Rich	2.63	1.26	1.95	3.45	2.27	1.18	1.67	0.83
Summit	2.19	1.61	7.00	1.78	3.25	0.25	2.61	5.00
Weber	1.21	1.88	1.48	1.30	1.79	1.50	1.57	2.07
REGIONAL TOTALS	2.09	2.20	2.02	1.99	2.16	2.00	2.21	2.36
Central Region								
Juab	3.25	4.45	3.70	3.33	3.34	4.25	2.72	3.35
Salt Lake	1.84	2.18	2.37	2.02	2.14	1.88	2.79	1.95
Sanpete	2.75	2.40	3.06	2.69	2.06	3.21	1.78	2.27
Tooele	2.31	2.88	1.90	2.29	2.14	2.06	2.45	2.02
Utah	1.97	2.08	2.05	1.89	1.77	2.12	2.43	1.72
Wasatch	1.20	1.22	2.42	2.11	2.37	1.83	2.15	2.21
REGIONAL TOTALS	2.23	2.55	2.41	2.25	2.10	2.51	2.43	2.07
Southern Region								
Beaver	3.50	4.35	1.71	3.32	3.41	1.52	3.72	2.73
Garfield	3.86	2.27	2.34	2.40	1.67	3.50	1.47	3.18
Iron	3.71	2.91	4.38	2.80	3.96	2.42	3.60	3.91
Kane	1.71	3.11	1.00	3.03	4.05	4.09	3.00	10.00
Millard	3.01	3.54	4.42	3.13	3.30	4.40	3.20	3.44
Piute	4.17	0.00	1.45	2.50	1.33	2.83	4.50	2.59
Sevier	2.03	2.70	2.18	2.09	2.42	2.10	2.36	1.21
Washington	3.37	2.12	2.81	3.63	2.54	2.74	2.28	3.06
Wayne	2.29	3.53	0.61	0.75	2.86	1.00	2.11	1.44
REGIONAL TOTALS	2.90	3.01	3.20	2.87	3.09	2.98	2.94	2.84
Northeastern Region								
Daggett	0.00	0.25	2.00	1.00	3.25	7.00	0.00	0.00
Duchesne	2.83	1.42	1.85	2.21	2.24	2.52	3.06	2.62
Uintah	2.68	2.33	3.17	1.06	2.06	2.12	3.35	2.01
REGIONAL TOTALS	2.68	1.82	2.46	1.64	2.15	2.32	3.25	2.08
Southeastern Region								
Carbon	2.06	0.75	1.18	2.15	1.51	2.82	0.96	1.80
Emery	2.87	1.77	2.04	1.68	3.10	3.73	2.06	2.10
Grand	2.00	2.18	4.04	1.13	0.00	2.21	1.50	0.47
San Juan	2.91	4.22	1.69	3.56	2.61	3.46	4.42	4.48
REGIONAL TOTALS	2.56	1.85	2.07	2.14	2.46	3.27	2.19	2.15
Unknown Counties	1.30	2.86	0.00	0.00	0.00	2.40	1.50	2.28
STATE TOTALS	2.28	2.49	2.49	2.28	2.35	2.51	2.48	2.31

Table 5. Percentage distribution of mourning dove harvest by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	10.31	12.06	9.95	9.60	9.09	11.18	12.10	13.61
Cache	2.94	4.87	3.34	5.54	7.20	4.85	5.07	5.40
Davis	3.27	2.01	2.57	2.39	1.15	0.79	1.41	2.40
Morgan	0.61	0.44	0.59	0.65	0.81	0.17	1.14	0.76
Rich	0.66	0.26	0.38	0.97	0.65	0.22	0.36	0.05
Summit	0.65	0.32	0.51	0.16	0.86	0.02	0.42	0.47
Weber	3.67	3.54	3.54	2.39	4.59	3.14	4.42	6.80
REGIONAL TOTALS	22.15	23.50	20.88	21.71	24.35	20.37	24.93	29.50
Central Region								
Juab	8.09	9.79	9.45	8.78	6.74	11.16	5.76	7.70
Salt Lake	4.37	3.56	5.71	5.00	5.15	2.59	5.24	2.34
Sanpete	4.30	4.34	3.23	4.84	3.57	4.10	3.41	3.11
Tooele	10.92	8.58	6.37	8.56	6.66	8.02	8.90	7.34
Utah	16.17	16.27	12.83	16.37	15.16	13.26	16.32	14.76
Wasatch	0.90	0.54	1.08	0.94	0.99	1.22	0.93	1.11
REGIONAL TOTALS	44.78	43.08	38.67	44.50	38.27	40.36	40.64	36.36
Southern Region								
Beaver	1.76	2.28	1.29	1.94	2.10	1.81	4.02	2.73
Garfield	0.25	1.09	0.92	0.35	0.05	0.39	0.25	0.73
Iron	3.22	3.07	6.20	3.07	5.57	2.37	2.79	5.83
Kane	0.33	0.64	0.07	0.91	0.98	1.00	0.08	0.21
Millard	11.73	9.92	13.35	9.29	11.80	13.31	40.87	8.25
Piute	0.46	0.00	0.57	0.68	0.31	0.38	0.41	0.46
Sevier	3.59	6.11	4.05	4.80	5.66	3.72	4.60	2.38
Washington	1.10	2.62	4.99	5.16	1.50	5.54	2.83	3.35
Wayne	0.14	0.73	0.11	0.03	0.22	0.16	0.34	0.14
REGIONAL TOTALS	22.63	26.46	31.57	26.22	28.19	28.68	26.19	24.08
Northeastern Region								
Daggett	0.00	0.02	0.06	0.01	0.14	0.08	0.00	0.00
Duchesne	1.27	0.85	1.62	2.61	1.21	1.74	0.94	1.59
Uintah	2.46	1.70	2.46	1.21	2.01	1.96	1.87	3.66
REGIONAL TOTALS	3.73	2.57	4.15	3.82	3.36	3.77	2.81	5.25
Southeastern Region								
Carbon	1.67	0.44	0.41	1.24	1.16	1.07	0.59	1.24
Emery	3.70	2.23	2.85	1.16	3.64	2.28	2.80	1.55
Grand	0.18	0.26	0.96	0.18	0.00	0.34	0.08	0.09
San Juan	0.59	1.24	0.51	1.18	1.03	0.92	1.91	1.17
REGIONAL TOTALS	6.16	4.17	4.74	3.74	5.84	4.62	5.38	4.06
Unknown counties	0.53	0.22	0.00	0.00	0.00	2.21	0.05	0.76
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 6. Percentage distribution of mourning dove hunting pressure by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	7.07	10.62	9.07	9.63	8.33	11.24	11.41	10.82
Cache	3.59	5.43	4.96	6.43	7.84	6.47	4.97	7.01
Davis	5.08	3.80	4.19	3.08	2.27	1.42	2.80	2.65
Morgan	0.61	1.06	0.85	0.64	0.77	0.47	0.96	0.48
Rich	0.59	0.52	0.49	0.64	0.67	0.47	0.54	0.14
Summit	0.70	0.49	0.18	0.20	0.62	0.22	0.40	0.22
Weber	7.11	4.70	5.94	4.19	6.03	5.24	6.98	7.59
REGIONAL TOTALS	24.77	26.62	25.67	24.83	26.53	25.54	28.05	28.91
Central Region								
Juab	5.82	5.49	6.35	6.01	4.74	6.58	5.26	5.30
Salt Lake	5.52	4.07	5.99	5.64	5.65	3.46	4.65	2.77
Sanpete	3.65	4.51	2.62	4.10	4.07	3.21	4.74	3.16
Tooele	11.08	7.41	8.33	8.54	7.32	9.76	9.13	8.41
Utah	19.18	19.53	15.52	19.75	20.08	15.70	16.69	19.78
Wasatch	1.77	1.11	1.11	1.02	0.98	1.67	1.07	1.16
REGIONAL TOTALS	47.09	42.12	39.91	45.06	42.85	40.38	41.53	40.57
Southern Region								
Beaver	1.18	1.30	1.88	1.33	1.44	2.98	2.68	2.31
Garfield	0.15	1.20	0.98	0.33	0.08	0.28	0.42	0.53
Iron	2.03	2.63	3.52	2.51	3.30	2.45	1.92	3.44
Kane	0.46	0.52	0.18	0.69	0.57	0.61	0.07	0.05
Millard	9.11	6.98	7.50	6.77	8.40	7.59	8.43	5.54
Piute	0.26	0.05	0.98	0.62	0.54	0.33	0.22	0.41
Sevier	4.14	5.65	4.63	5.24	5.49	4.43	4.83	4.53
Washington	0.76	3.07	4.42	3.24	1.39	5.08	3.09	2.53
Wayne	0.15	0.52	0.46	0.09	0.18	0.39	0.40	0.22
REGIONAL TOTALS	18.26	21.92	24.54	20.81	21.40	24.15	22.08	19.56
Northeastern Region								
Daggett	0.06	0.22	0.08	0.02	0.10	0.03	0.00	0.22
Duchesne	1.05	1.49	2.18	2.68	1.26	1.73	0.76	1.40
Uintah	2.14	1.82	1.93	2.60	2.29	2.31	1.39	4.22
REGIONAL TOTALS	3.26	3.53	4.19	5.30	3.66	4.07	2.15	5.83
Southeastern Region								
Carbon	1.90	1.44	0.87	1.31	1.80	0.95	1.52	1.59
Emery	3.02	3.15	3.47	1.58	2.76	1.53	3.38	1.71
Grand	0.21	0.30	0.59	0.36	0.08	0.39	0.13	0.46
San Juan	0.48	0.73	0.75	0.75	0.93	0.67	1.07	0.60
REGIONAL TOTALS	5.62	5.62	5.68	3.99	5.57	3.54	6.11	4.36
Unknown counties	0.96	0.19	0.00	0.00	0.00	2.31	0.09	0.77
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 7. Statewide summary of mourning dove harvest statistics, 1951-95.

Year	Total Hunters	Total Harvest	Hunter-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
1983	28,258	272,979	100,568	2.71	9.66
1984	30,573	282,307	108,793	2.59	9.23
1985	28,183	256,045	96,507	2.65	9.09
1986	26,583	226,985	87,084	2.61	8.54
1987***	22,553	204,030	89,378	2.28	9.05
1988	22,457	178,469	76,219	2.34	7.95
1989	21,696	190,328	76,372	2.49	8.77
1990	22,700	199,007	80,076	2.49	8.77
1991	22,632	178,853	78,405	2.28	7.90
1992	18,021	161,902	68,937	2.35	8.98
1993	19,725	170,834	68,143	2.51	8.66
1994	20,743	195,089	78,594	2.48	9.41
1995	20,896	186,336	80,688	2.31	8.92
Totals					
(1951-95)	990,684	9,216,865	3,118,844	--	--
Averages					
(1951-94)	22,041	205,239	69,049	3.27	9.05

* Estimated.

**Bag limit increased to 15.

***Bag limit reduced to 10.

Table 8. Mourning dove field bag check summary, 1995.

Region and County	All Hunts				Complete Hunts				
	Total Parties	Total Hunters	Total Hours	Total Birds/ 100 Hr	Complect Hunts	Total Hunters	Total Hours	Total Birds/ 100 Hr	Birds/ Hunter
Northern Region									
Box Elder	--	--	--	--	--	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS									
Central Region									
Juab	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS									
Southern Region									
Beaver	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS									
Northeastern Region									
Daggett	--	--	--	--	--	--	--	--	--
Duchesne	--	--	--	--	--	--	--	--	--
Uintah	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS									
Southeastern Region									
Carbon	--	--	--	--	--	--	--	--	--
Emery	17	35	115	94	81.74	9	17	38	46
Grand	--	--	--	--	--	--	--	--	--
San Juan	--	44	143	111	77.62	--	7	13	18
REGIONAL TOTALS									
LEHI CHECK STATION	148	303	1,191	490	41.14	101	203	800	321
NEPHI CHECK STATION	145	310	1,005	990	98.48	83	187	675	772
THIOL CHECK STATION	60	126	603	559	92.70	51	108	532	503
STATE TOTALS									
	370	818	3,057	2,244	73.40	244	522	2,057	1,157
									66
									2.22

Table 9. Mourning dove hunter success trend as determined by field bag checks, 1990-95.

Region and County	1990		1991		1992		1993		1994		1995	
	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
Northern Region												
Box Elder	38	2.29	200	2.27	--	--	--	--	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--	--	--	--
Davis	110	1.77	158	1.88	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	39	0.83	73	1.00	--	--	--	--	--	--	--	--
REGIONAL TOTALS	42	1.93	147	1.79	--	--	--	--	--	--	--	--
Central Region												
Juab	116	4.6	64	2.49	--	--	110	5.26	--	--	--	--
Salt Lake	--	--	14	0.50	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	285	10	--	--	--	--	--	--	--	--	--	--
Utah	65	2.43	76	2.86	--	--	117	4.42	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	114	2.95	70	2.69	--	--	115	4.64	--	--	--	--
Southern Region												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	104	7.78	--	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	104	7.78	--	--	--	--	--	--	--	--	--	--
Northeastern Region												
Daggett	--	--	--	--	--	--	--	--	--	--	--	--
Duchesne	--	--	--	--	--	--	--	--	--	--	--	--
Uintah	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--
Southeastern Region												
Carbon	--	--	--	--	219	7.08	280	7.00	--	--	--	--
Emery	127	4	300	7.50	265	4.07	198	7.92	327	6.13	121	2.71
Grand	--	--	--	--	--	--	200	1.00	--	--	--	--
San Juan	129	6	250	5.00	--	--	--	--	164	4.05	144	2.57
REGIONAL TOTALS	127	4.9	294	7.14	235	5.46	202	6.93	193	4.64	127	2.67
LEHI CHECK STATION	65	2.43	76	2.86	50	2.73	130	4.43	88	3.09	40	1.58
NEPHI CHECK STATION	104	7.78	64	2.49	84	4.01	110	5.26	127	3.79	114	4.13
THIOKOL CHECK STATION	--	--	--	--	127	3.64	141	5.21	--	--	95	4.66
STATE TOTALS	104	3	73	2.70	60	2.85	112	4.36	83	2.88	56	2.22

Table 11. Percent of harvest by hatching date of immature mourning doves in Utah, 1986-95.

Date Hatched (Days)	Age (Days)	P	PERCENT OF HARVEST BY HATCH DATE													SAMPLE SIZE						
			1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Aug 3	29	none	31.2	34.8	--	41.3	52.2	--	37.8	--	53.7	56.1	192	155	--	81	254	--	118	--	22	37
Jul 31	32	1	35.0	21.8	--	30.1	26.7	--	32.1	--	19.5	21.2	215	97	--	59	130	--	100	--	8	14
Jul 25	38	2	15.6	17.5	--	18.4	13.1	--	10.9	--	9.8	10.6	96	78	--	36	64	--	34	--	4	7
Jul 18	45	3	8.6	10.6	--	6.6	4.3	--	9.3	--	7.3	6.1	53	47	--	13	21	--	29	--	3	4
Jul 9	54	4	4.7	5.7	--	2.6	2.3	--	4.5	--	7.3	4.5	29	25	--	5	11	--	14	--	3	3
Jun 30	63	5	2.8	4.3	--	0.5	0.6	--	4.2	--	0.0	1.5	17	19	--	1	3	--	13	--	0	1
Jun 21	72	6	1.3	3.8	--	0.0	0.4	--	1.0	--	2.4	0.0	8	17	--	0	2	--	3	--	1	0
Jun 8	85	7	0.5	1.1	--	0.5	--	--	0.3	--	0.0	0.0	3	5	--	1	--	--	1	--	0	0
May 22	102	8	0.3	0.2	--	0.0	--	--	--	--	0.0	0.0	2	1	--	0	--	--	--	--	0	0
Apr 27	127	9	0.0	0.2	--	0.0	0.4	--	--	--	0.0	0.0	0	1	--	0	2	--	--	--	0	0
Apr 21	133	10	0.0	0.0	--	0.0	0.0	--	--	--	0.0	0.0	0	0	--	0	--	--	--	--	0	0
			100	100	--	100	100	--	100	--	100	100	615	445	--	196	487	--	312	--	41	66

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 1995 band-tailed pigeon harvest is in Table 13. Free hunting permits were required in 1995 and a questionnaire was sent to participants. Only 59 hunters obtained the band-tailed pigeon permit in 1995. Harvest trends since 1970 are shown in Figures 4 & 5 and Table 14.

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Band-tailed pigeon hunter	59	+354	+40
Band-tailed pigeon harvest	121	+137	+4
Hunter-days afield	171	+533	+55
Pigeons per hunter-day	0.71	-63	-30
Pigeons per hunter	2.05	-48	-26

Band-tailed pigeon hunters afield increased dramatically from 1994, and was 40 percent below the long-term average.

One hundred twenty-one pigeons were reported harvested in 1995.

The implementation of a free hunting permit in 1995 versus a fee of \$3.00 charged for the permit in 1994 may be responsible for more hunters desiring to pursue pigeons.

Table 13. Band-tailed pigeon harvest statistics, 1995.

Area Hunted	Participating Hunters		Hunter-Days Afield		Harvest		Pigeons/ Hunter-Day		Percent	
	Reported	Calc.	Reported	Calc.	Reported	Calc.	Reported	Calc.	Pressure*	Harvest
Beaver County	7	12	10	17	10	17	1.00	17	20.59	14.29
Blue Mountain-Elk Ridge	4	7	18	31	0	0	0.00	0	11.76	0.00
Iron County	1	2	2	3	3	5	1.50	3	2.94	4.29
Kane County	4	7	18	31	2	3	0.11	3	11.76	2.86
LaSal Mountain	4	7	15	26	42	73	2.80	73	11.76	60.00
Washington County	1	2	3	5	0	0	0.00	0	2.94	0.00
Other	13	22	33	57	13	22	0.39	22	38.24	18.57
Totals	34	59	99	171	70	121	0.71	121	100	100

*Based on hunter-days.

Projection Factor = 1.72881355932 (number permits issued/number questionnaires returned)
 102 PERMITS SOLD
 59 QUESTIONNAIRES RETURNED

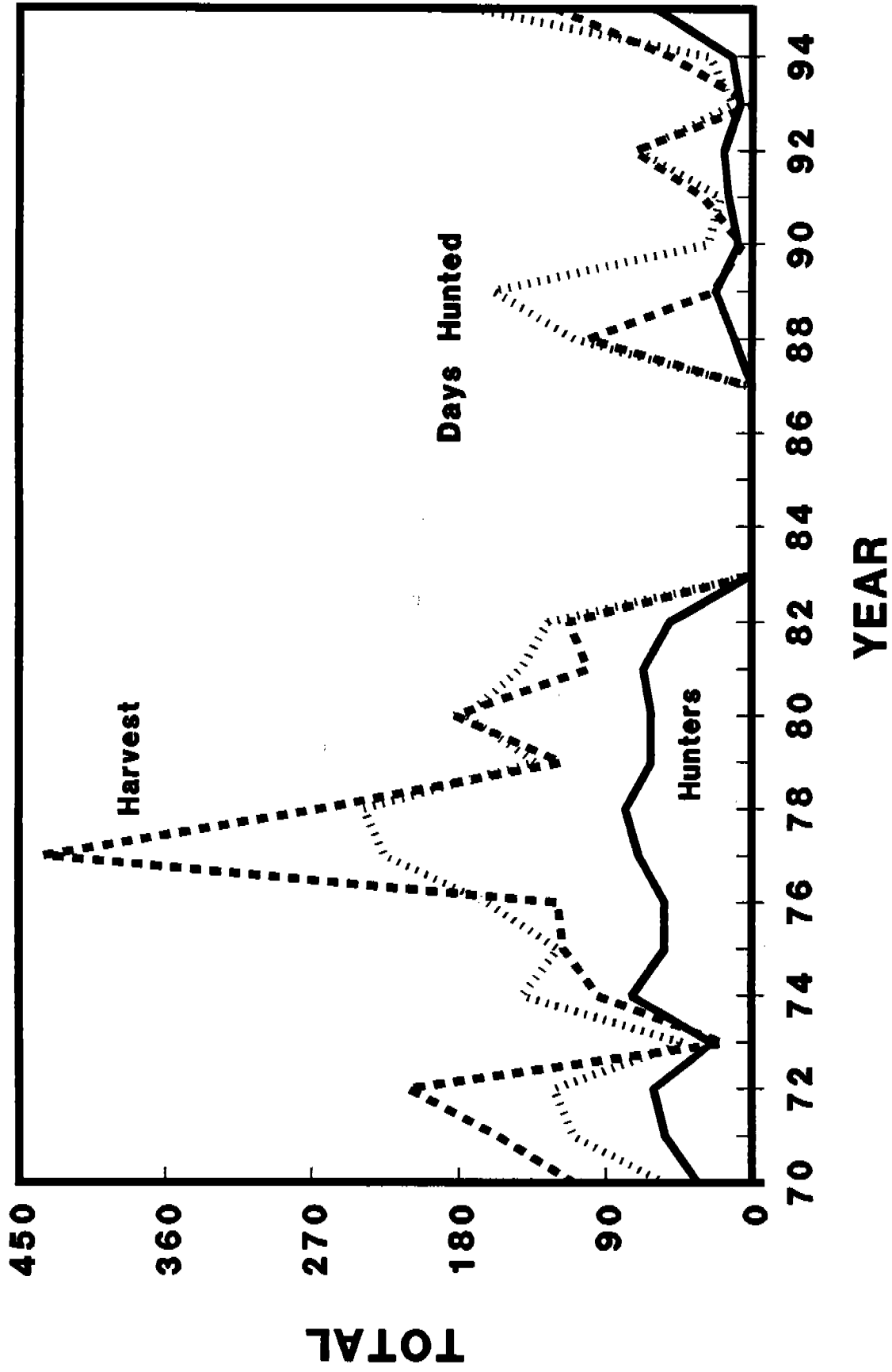


Figure 4. Statewide trends of band-tailed pigeon harvest statistics, 1970-95.

PIGEONS PER HUNTER AND PER DAY

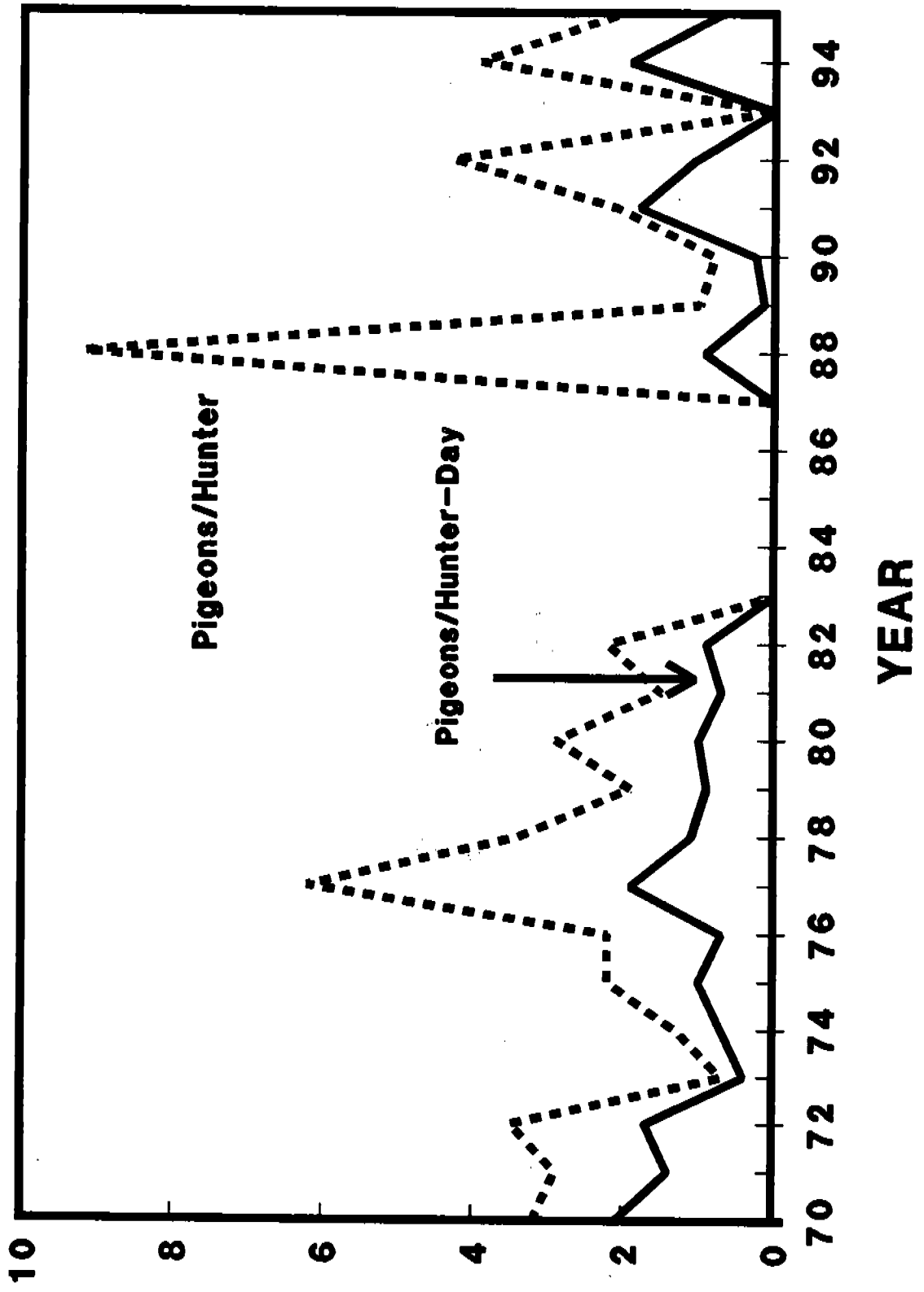


Figure 5. Statewide trends of band-tailed pigeon hunter success rates, 1970-95.

Table 14. Statewide summary of band-tailed pigeon harvest statistics, 1970-95.

Year	Total Hunters	Total Harvest	Hunter-Days Afield	Pigeons/Hunter-Day	Pigeons/Hunter
1970	34	109	53	2.10	3.20
1971	54	156	110	1.40	2.90
1972	61	211	122	1.70	3.50
1973	25	18	42	0.40	0.70
1974	74	95	141	0.70	1.30
1975	54	116	119	1.00	2.20
1976	54	119	162	0.70	2.20
1977	70	435	225	1.90	6.20
1978	78	264	238	1.10	3.40
1979	62	117	133	0.90	1.90
1980	62	182	175	1.00	2.90
1981	67	101	142	0.70	1.50
1982	51	113	125	0.90	2.20
1983	--	--	--	--	--
1984	--	--	--	--	--
1985	--	--	--	--	--
1986	--	--	--	--	--
1987	--	--	--	--	--
1988	11	101	109	0.93	9.20
1989	23	24	159	0.15	1.00
1990	9	7	28	0.26	0.80
1991	15	31	20	1.50	2.10
1992	18	73	70	1.05	4.06
1993	8	0	13	--	--
1994	13	51	27	1.92	3.92
1995	59	121	171	0.71	2.05
Totals (1970-95)	902	2,444	2,384	--	--
Averages (1970-94)	42	116	111	1.02	2.76

CHUKAR PARTRIDGE

SUMMARY

CHUKARS



The winter of 1993-94 was mild throughout Utah. Over winter survival of chukar brood stock should have been good.

Late winter and early spring precipitation, critical to successful chukar production, was above normal.

Results of the brood survey indicated that brood production was below average. However, sample sizes were extremely small and probably represent localized conditions.

Harvest statistics from the general mail questionnaire reflected an increased harvest by 8 percent more hunters than in 1994. Hunter success (chukars per hunter-day) increased 2 percent from 1994 while time afield increased 10 percent.

In 1993, the Springville Game Farm was closed. Prior to 1993, operations at the farm provided approximately 4,000 chukars annually that were released into various areas of Utah to supplement and establish populations.

Also in 1993, the "Day-Old Chukar Chick Program" was eliminated. In addition to birds raised at the Springville Game Farm, this program provided another 1,000-2,000 birds annually for release into the wild.

Brood Counts

Results of the annual random brood survey for 1995 are shown in Table 1 of this section. Long-term trends of young per adult ratios, mean brood size and chukars observed per 100 hours are found in Tables 2-4 and Figure 1. Following are the survey results for 1995 compared to 1994 and the 10-year (1985-94) average:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Total chukars observed	158	-22	-66
Young per 100 adults	285	-39	-35
Mean brood size	--	--	--
Chukars observed per 100 hours	--	--	--
Total hours effort	--	--	--

Winter and early spring precipitation (January-April) was above average over the entire state (Figure 4). Summer temperatures were below normal over most of Utah from April through July.

Effort on chukar brood counts decreased significantly in 1995 and remained well below average.

Brood count sample sizes were extremely small or nonexistent for most regions. Brood count data was reported only in the Southeastern Region. Because of extremely small sample sizes, this data can only represent localized population trends.

Harvest

Hunter Questionnaire

Results of the hunter questionnaire survey for 1995 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 and Figures 2 and 3. Following is a comparison of 1995 harvest statistics to 1994 and the previous 37-year average:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Chukar hunters	9,097	+8	-34
Chukars harvested	20,954	+12	-45
Hunter-days afield	31,140	+10	-25
Chukars per hunter-day	0.67	+2	-25
Chukars per hunter	2.30	+4	-15

Ninety percent confidence interval for overall chukar harvest is +/- 2,515.17. Standard deviation is 1.155777.

Chukar hunters and hunter effort increased from 1994. Chukars per hunter-day increased slightly from 1994, but remains 25 percent below the long-term average. Total harvest increased 12 percent in 1995. The Northern Region had the highest percentage of the harvest (31%) in 1995, and the Central Region had the highest percentage of hunter pressure (37%).

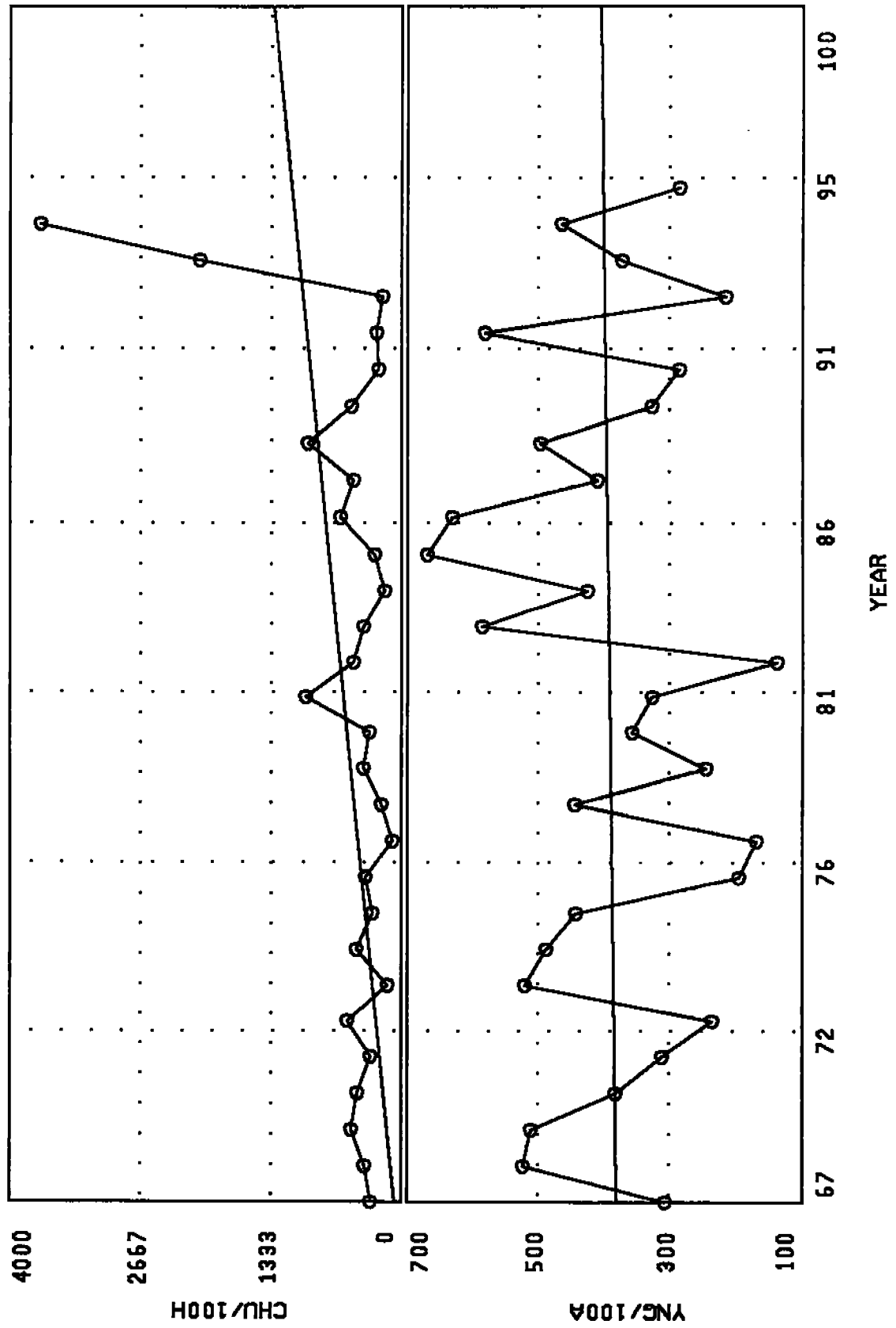
Field Bag Checks

A summary of field bag check data for 1995 is shown in Table 10. The hunter success trend determined via this method are shown in Table 11 and Figure 5. Data for the 1995 season compared to 1994 and the 10-year (1985-94) average follow:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Total hunters checked	64	+814	-57
Total hours hunted	289	+1,214	-63
Chukars per hunter (complete hunts)	2.08	-34	+51
Chukars bagged per 100 hours (complete hunts)	46	-55	+19
Average hours per hunter-day (complete hunts)	4.52	+44	+5
Hours hunted per chukar bagged (complete hunts)	2.17	+117	-81

Field bag check data was collected in the Central and Southeastern Regions. Sample sizes are too small to draw any meaningful conclusions.

FIGURE 1. CHUKAR PRODUCTION INDICES, 1967-95.



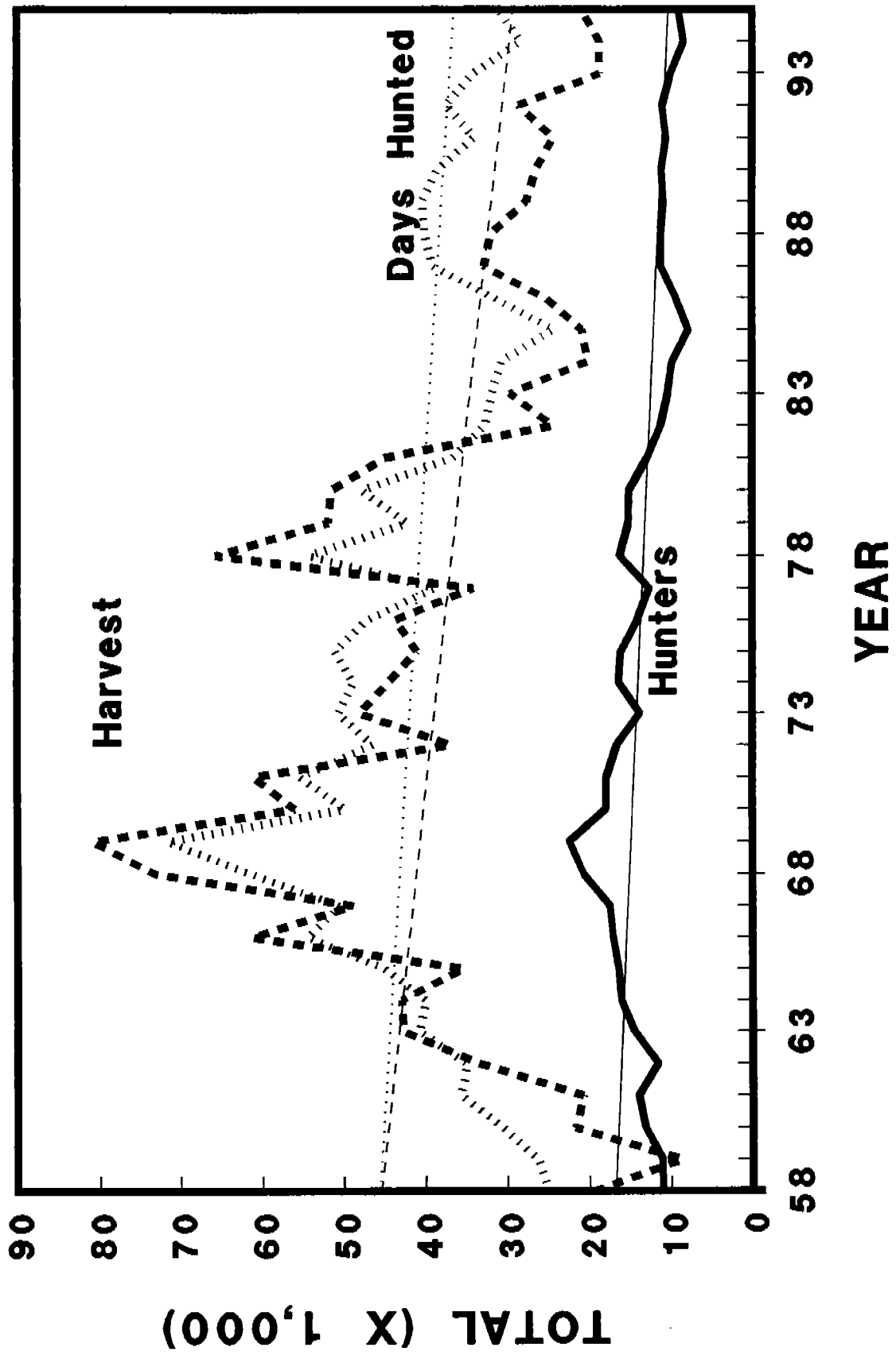


Figure 2. Statewide trends of chukar partridge harvest statistics, 1958-95.

CHUKARS PER HUNTER AND PER DAY

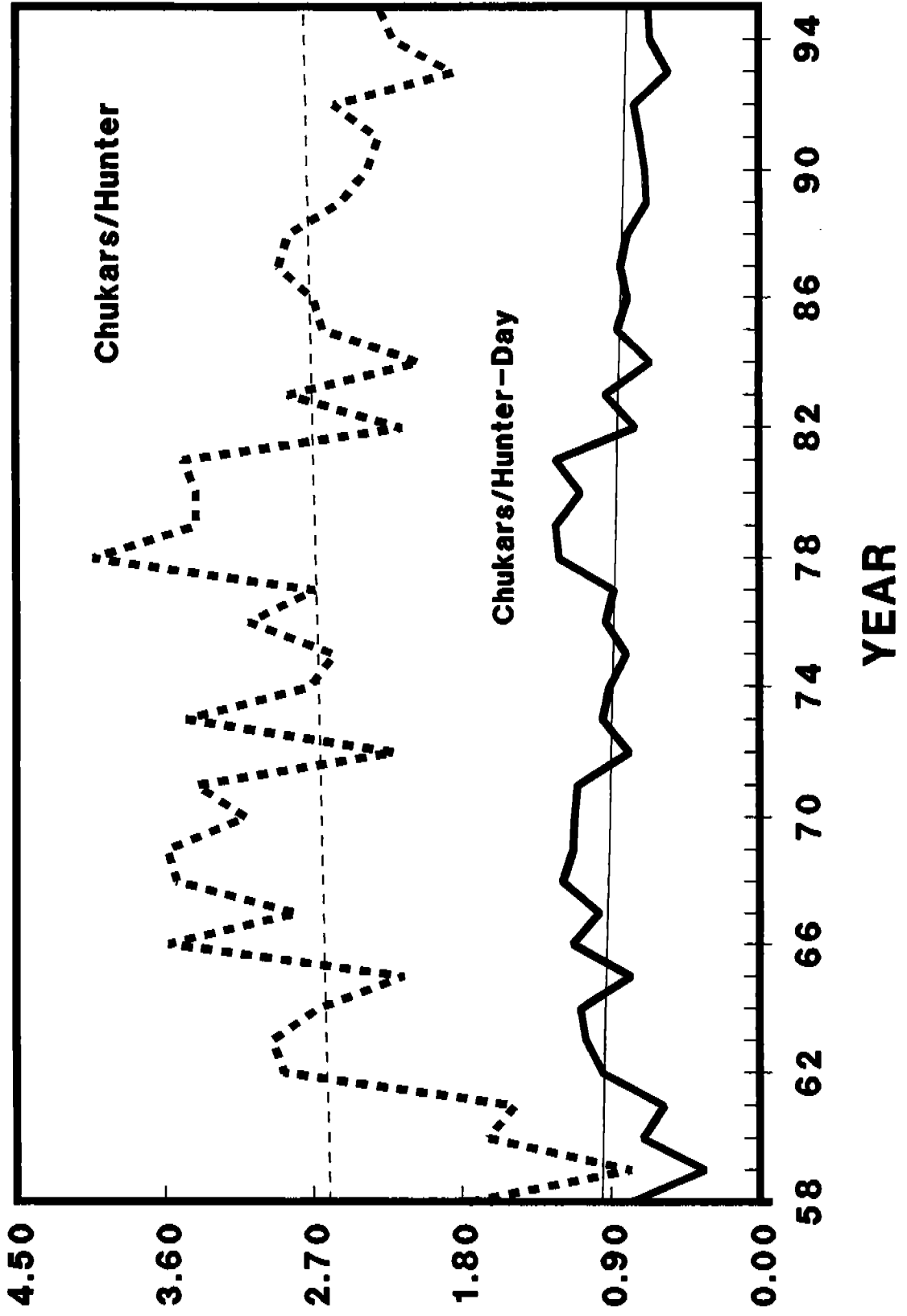
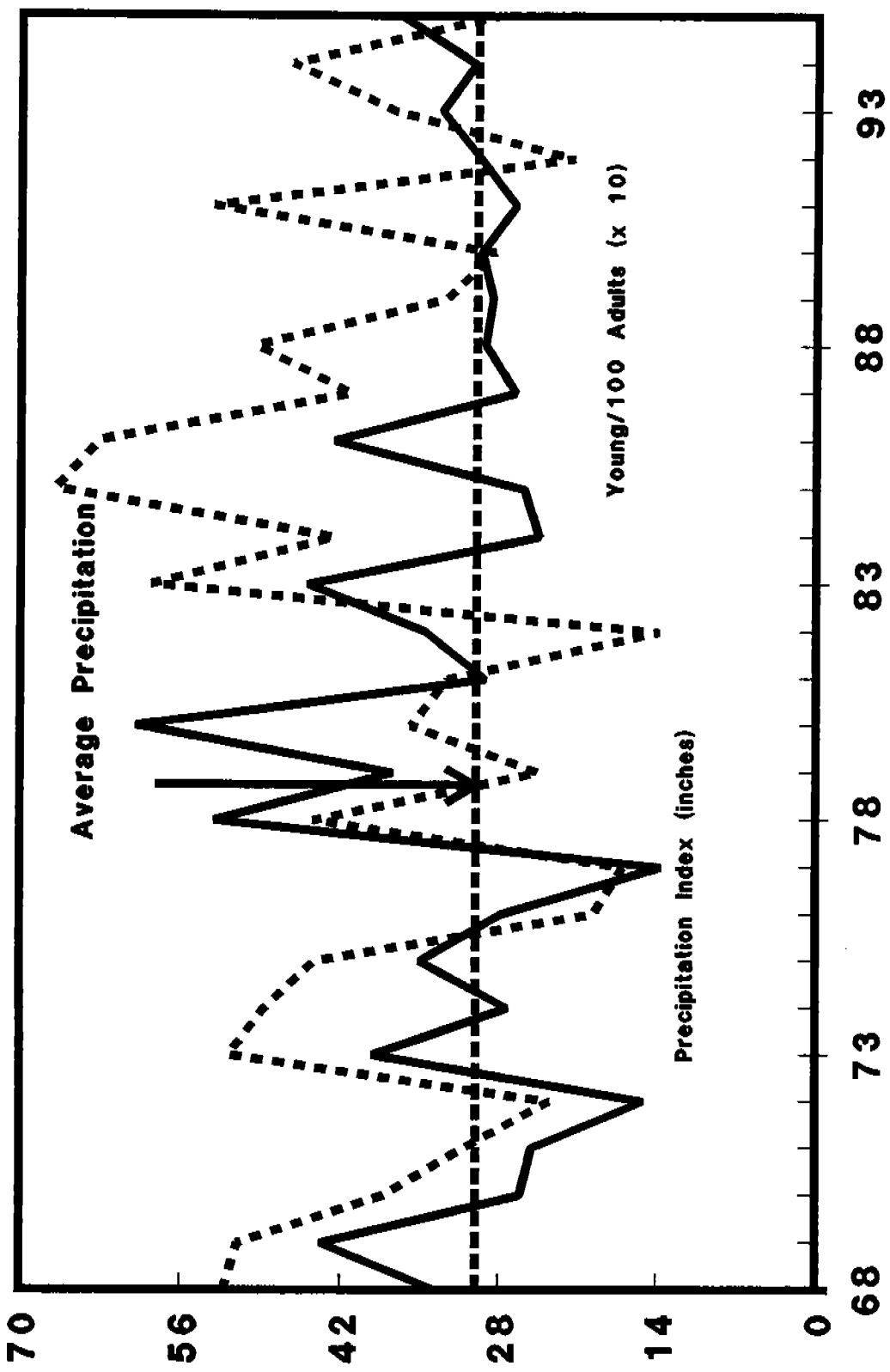


Figure 3. Statewide trends of chukar hunter success rates, 1958-95.

YOUNG/100 ADULTS & PRECIP. INDEX



YEAR

Figure 4. Relationship between late winter and early spring (Jan.-April) precipitation and chukar production, 1968-95.

FIGURES. CHUKAR FIELD BAG CHECK INDICES, 1966-95.

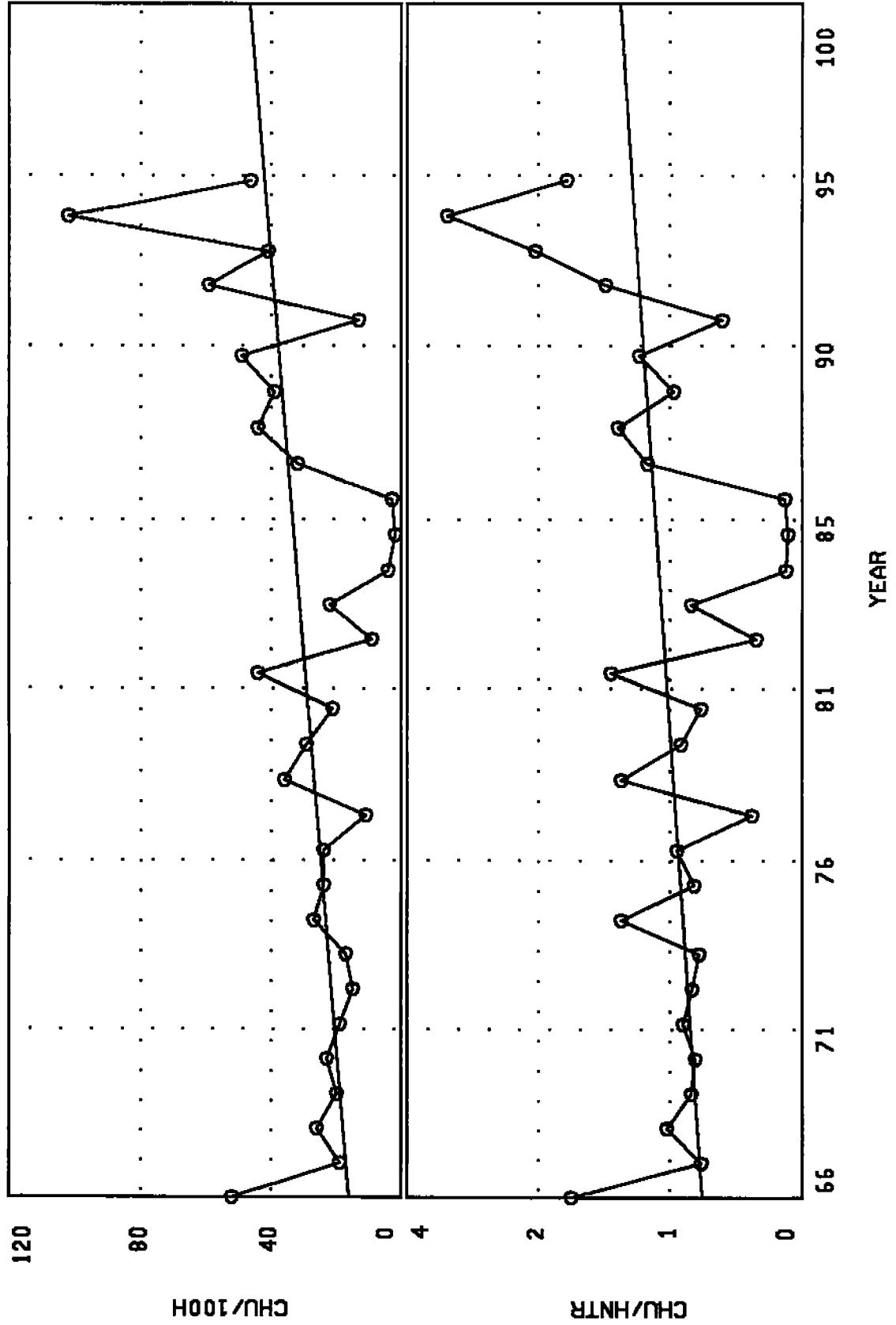


Table 2. Trend of chukar young per 100 adults, 1985-95.

Region and County	Year											Average 1985-94
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Northern Region												
Box Elder	4,200	700	283	136	--	--	--	--	--	--	--	--
Cache	--	--	850	300	--	848	--	--	--	--	--	--
Davis	--	--	24	--	--	400	--	300	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	4,200	560	125	117	675	46	121					
Central Region												
Juab	--	739	600	462	120	587	367	1,000	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	1,000	767	--	--	--	--
Tooele	550	566	535	484	263	157	443	300	--	--	--	--
Utah	300	--	875	--	472	--	1,200	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	457	642	591	468	240	266	533	650	481			
Southern Region												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	125	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	550	927	--	--	--	--	--	--	--
Piute	--	--	370	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	125	370	550	927	493							
Northeastern Region												
Daggett	--	--	0	--	--	--	--	--	--	--	--	--
Duchesne	--	--	0	--	--	--	--	--	--	--	--	--
Uintah	--	--	267	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	267	267	267	267	267	267	267	267	267	267	267	267
Southeastern Region												
Carbon	--	1,300	1,014	600	--	--	--	--	--	--	--	--
Emery	--	--	500	--	243	--	--	156	533	--	--	--
Grand	730	730	573	621	64	0	200	368	464	285	--	--
San Juan	--	--	--	200	--	--	--	900	--	--	--	--
REGIONAL TOTALS	408	287	631	620	93	131	195	373	464	285	376	441
STATE TOTALS	670	631	411	496	327	285	533	215	373	464	285	441

Table 3. Trend of average brood size for chukars, 1985-95.

Region and County	Year													Average 1985-94
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995			
Northern Region														
Box Elder	9.00		8.50	7.50										
Cache				6.00		13.50								
Davis					14.00	12.00		3.00						
Morgan					7.00									
Rich														
Summit														
Weber														
REGIONAL TOTALS	9.00	7.45	8.50	7.00	10.50	13.00	7.33	3.00	10.00	8.00	10.67	8.50		
Central Region														
Juab		7.45	8.00	6.75	5.50	4.30		10.00						
Salt Lake														
Sanpete							10.00							
Tooele	8.43	7.86	8.00	7.43	6.40	3.40	5.50							
Utah	10.00		10.50		3.00		12.00							
Wasatch														
REGIONAL TOTALS	8.63	7.69	8.23	7.07	5.00	3.60	7.33	10.00	8.00	10.67	8.50	7.19		
Southern Region														
Beaver														
Garfield		2.00												
Iron														
Kane														
Millard				7.76	7.50									
Piute			5.00											
Sevier														
Washington														
Wayne														
REGIONAL TOTALS	5.00	7.75	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	6.75	
Northeastern Region														
Daggett														
Duchesne														
Uintah			10.00											
REGIONAL TOTALS	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	
Southeastern Region														
Carbon		12.50	9.67	6.00										
Emery	5.00		5.00			8.50		18.00	3.33					
Grand	9.00		8.57	9.11	1.00			4.00	8.00	10.67				
San Juan					4.00			9.00						
REGIONAL TOTALS	7.67	10.40	8.25	8.95	2.60	8.50	7.33	10.33	5.67	10.67	8.10	7.52		
STATE TOTALS	8.46	8.13	7.93	8.00	5.65	5.50	7.33	7.83	5.67	10.67	7.52	7.19		

Table 4. Trend of chukars observed per 100 hours, 1985-95.

Region and County	Year													Average 1985-94
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995			
Northern Region														
Box Elder	239	168	40	236	--	--	--	30	--	--	--	--	--	
Cache	--	--	83	35	--	294	--	67	--	--	--	--	--	
Davis	--	22	313	500	250	333	--	160	--	--	--	--	--	
Morgan	--	--	--	--	500	--	--	--	--	--	--	--	--	
Rich	--	--	--	--	--	--	--	--	--	--	--	--	--	
Summit	--	--	--	--	--	--	--	--	--	--	--	--	--	
Weber	--	--	--	--	--	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	155	102	91	111	135	295	70	--	--	--	--	--	137	
Central Region														
Juab	--	2,611	850	913	500	229	200	122	--	--	--	--	--	
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--	--	
Sarpete	--	--	--	--	--	733	2,600	--	--	--	--	--	--	
Tooele	681	1,046	1,123	653	314	365	400	--	--	--	--	--	--	
Utah	578	--	1,950	--	2,100	--	1,300	--	--	--	--	--	--	
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	642	1,424	844	822	623	281	434	375	--	--	--	--	668	
Southern Region														
Beaver	--	--	--	--	--	--	--	--	--	--	--	--	--	
Garfield	--	--	--	--	--	--	--	--	--	--	--	--	--	
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	
Kane	--	--	--	--	--	--	--	--	--	--	--	--	--	
Millard	--	--	--	1,486	1,596	--	--	--	--	--	--	--	--	
Piute	--	--	1,567	--	--	--	--	--	--	--	--	--	--	
Sevier	--	--	--	--	--	--	--	--	--	--	--	--	--	
Washington	--	--	--	--	--	--	--	--	--	--	--	--	--	
Wayne	--	--	--	--	--	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	--	--	1,567	1,486	1,596	--	--	--	--	--	--	--	1,550	
Northeastern Region														
Daggett	--	--	--	--	--	--	--	--	--	--	--	--	--	
Duchesne	--	--	--	--	--	--	--	--	--	--	--	--	--	
Uintah	--	0	856	--	--	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	--	0	241	--	--	--	--	--	--	--	--	--	121	
Southeastern Region														
Carbon	--	--	7,800	350	--	--	--	--	--	--	--	--	--	
Emery	833	--	771	--	--	480	--	511	158	--	--	--	--	
Grand	424	2,075	1,167	3,983	240	67	100	4,350	3,691	--	--	--	--	
San Juan	--	--	--	--	225	--	200	--	--	--	--	--	--	
REGIONAL TOTALS	530	2,075	1,335	3,293	225	150	258	2,064	3,691	--	--	--	1,513	
STATE TOTALS	286	633	496	969	522	244	200	2,064	3,691	--	--	--	936	

Table 5. Summary of chukar hunter success and distribution of harvest and hunting pressure by region and county, 1995.

REGION AND COUNTY	SAMPLE SIZE*	HUNTER-DAYS AFIELD	BIRDS BAGGED	BIRDS PER HUNTER-DAY	† OF PRESSURE	† OF HARVEST
NORTHERN REGION						
Box Elder	111	5,384	6,006	1.12	17.29	28.66
Cache	24	1,185	311	0.26	3.81	1.48
Davis	4	116	19	0.17	0.37	0.09
Morgan	4	116	0	0.00	0.37	0.00
Rich	1	19	0	0.00	0.06	0.00
Summit	3	58	0	0.00	0.19	0.00
Weber	10	485	233	0.48	1.56	1.11
REGIONAL TOTALS	159	7,367	6,570	0.89	23.66	31.36
CENTRAL REGION						
Juab	38	1,963	1,146	0.58	6.30	5.47
Salt Lake	7	272	213	0.79	0.87	1.02
Sanpete	14	1,632	485	0.30	5.24	2.32
Tooele	83	4,276	2,468	0.58	13.73	11.78
Utah	71	3,304	2,060	0.62	10.61	9.83
Wasatch	3	116	38	0.33	0.37	0.19
REGIONAL TOTALS	216	11,565	6,414	0.55	37.14	30.61
SOUTHERN REGION						
Beaver	10	1,166	388	0.33	3.75	1.86
Garfield	4	311	0	0.00	1.00	0.00
Iron	1	38	19	0.50	0.12	0.09
Kane	1	116	38	0.33	0.37	0.19
Millard	26	1,496	1,069	0.71	4.81	5.10
Piute	9	427	194	0.45	1.37	0.93
Sevier	35	4,062	1,088	0.27	13.05	5.19
Washington	2	19	19	1.00	0.06	0.09
Wayne	5	252	38	0.15	0.81	0.19
REGIONAL TOTALS	93	7,891	2,857	0.36	25.34	13.64
NORTHEASTERN REGION						
Daggett	0	0	0	0.00	0.00	0.00
Duchesne	17	796	1,107	1.39	2.56	5.29
Uintah	19	738	1,088	1.47	2.37	5.19
REGIONAL TOTALS	36	1,535	2,196	1.43	4.93	10.48
SOUTHEASTERN REGION						
Carbon	7	272	194	0.71	0.87	0.93
Emery	23	1,496	1,438	0.96	4.81	6.86
Grand	15	680	874	1.29	2.18	4.17
San Juan	2	38	155	4.00	0.12	0.74
REGIONAL TOTALS	47	2,488	2,663	1.07	7.99	12.71
Unknown	5	291	252	0.87	0.94	1.21
STATE TOTALS	554	31,140	20,954	0.67	100.00	100.00

*Total hunter trips from questionnaire returns.

Table 6. Summary of chukars bagged per hunter-day by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	0.63	0.54	0.89	0.78	0.86	0.37	0.72	1.12
Cache	0.58	0.73	0.51	0.37	0.89	0.28	0.03	0.26
Davis	1.65	0.42	0.79	0.76	0.38	0.25	0.21	0.17
Morgan	1.08	0.56	0.71	0.54	0.41	0.20	1.19	0.00
Rich	1.43	0.70	1.67	0.32	0.33	0.17	0.00	0.00
Summit	0.68	0.20	2.14	0.14	0.33	0.36	0.67	0.00
Weber	0.45	1.07	0.73	0.84	0.66	0.62	0.14	0.48
REGIONAL TOTALS	0.69	0.58	0.82	0.69	0.76	0.36	0.61	0.89
Central Region								
Juab	0.90	0.66	0.73	0.87	0.77	0.50	0.94	0.58
Salt Lake	0.69	1.05	1.16	1.68	1.08	1.30	0.58	0.79
Sanpete	1.26	1.06	1.35	0.83	0.77	0.76	0.58	0.30
Tooele	0.82	0.69	0.77	0.70	0.76	0.41	0.65	0.58
Utah	0.64	0.78	0.67	0.79	0.65	0.53	0.84	0.62
Wasatch	1.00	0.60	0.67	0.50	0.32	1.64	0.43	0.33
REGIONAL TOTALS	0.83	0.78	0.81	0.79	0.73	0.54	0.72	0.55
Southern Region								
Beaver	0.35	0.50	0.42	0.67	0.28	0.48	0.04	0.33
Garfield	1.13	0.63	0.00	2.50	0.00	1.33	1.78	0.00
Iron	0.00	0.00	0.25	0.18	0.44	0.00	0.80	0.50
Kane	0.00	0.00	0.00	1.50	0.00	0.29	0.00	0.33
Millard	0.95	0.57	0.62	0.55	1.35	0.51	0.55	0.71
Piute	0.30	0.54	0.29	1.00	0.18	0.39	0.20	0.45
Sevier	0.67	0.47	0.51	0.72	0.67	0.48	0.38	0.27
Washington	0.00	0.00	0.00	0.00	0.00	1.82	0.00	1.00
Wayne	1.83	0.27	0.00	1.80	0.20	0.27	2.33	0.15
REGIONAL TOTALS	0.72	0.50	0.45	0.68	0.73	0.53	0.43	0.36
Northeastern Region								
Daggett	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Duchesne	2.12	0.73	0.27	0.19	1.86	0.51	0.74	1.39
Uintah	0.69	2.14	0.09	0.79	0.75	0.38	0.00	1.47
REGIONAL TOTALS	1.42	1.81	0.17	0.38	0.95	0.52	0.43	1.43
Southeastern Region								
Carbon	1.29	0.42	0.16	0.46	1.25	0.56	0.80	0.71
Emery	0.95	0.29	0.50	0.43	0.88	0.41	0.63	0.96
Grand	1.26	0.92	0.56	0.38	3.40	1.61	1.83	1.29
San Juan	0.50	0.00	0.00	0.50	0.00	0.00	0.20	4.00
REGIONAL TOTALS	1.03	0.50	0.39	0.44	1.24	1.14	0.97	1.07
Unknown Counties	0.00	1.00	0.00	0.00	0.20	1.06	0.00	0.87
STATE TOTALS	0.80	0.68	0.69	0.72	0.76	0.55	0.66	0.67

Table 7. Percentage distribution of chukar harvest by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	10.15	13.21	18.42	23.43	17.49	8.00	15.59	28.66
Cache	2.29	4.05	4.43	1.93	4.73	2.23	0.09	1.48
Davis	1.71	0.83	0.85	1.57	1.56	0.20	0.47	0.09
Morgan	0.67	1.43	0.93	1.36	0.93	0.61	2.35	0.00
Rich	0.52	0.53	1.17	0.64	0.19	0.10	0.00	0.00
Summit	0.88	0.08	1.17	0.14	0.06	0.91	0.19	0.00
Weber	0.26	1.13	1.48	1.93	1.31	2.63	0.19	1.11
REGIONAL TOTALS	16.51	21.25	28.44	31.00	26.26	14.68	18.87	31.36
Central Region								
Juab	7.18	5.33	5.13	8.57	6.97	5.57	4.41	5.47
Salt Lake	1.87	3.15	2.87	3.00	5.10	3.04	1.31	1.02
Sanpete	7.96	9.83	8.08	6.07	4.73	7.19	5.63	2.32
Tooele	24.63	19.67	28.21	15.29	17.67	14.17	17.28	11.78
Utah	9.06	15.09	10.26	16.86	15.99	10.93	20.09	9.83
Wasatch	0.20	0.23	0.16	0.93	0.37	2.33	0.28	0.19
REGIONAL TOTALS	50.93	53.30	54.70	50.71	50.84	43.22	49.02	30.61
Southern Region								
Beaver	1.09	1.05	2.18	3.00	0.44	1.11	0.09	1.86
Garfield	0.46	0.75	0.00	0.36	0.00	1.62	1.50	0.00
Iron	0.00	0.00	0.31	0.14	0.25	0.00	0.38	0.09
Kane	0.00	0.00	0.00	0.21	0.00	0.40	0.00	0.19
Millard	8.22	4.65	3.11	3.21	5.48	4.96	3.47	5.10
Piute	0.52	1.13	0.85	1.00	0.19	0.91	0.75	0.93
Sevier	8.80	5.26	4.74	5.79	7.47	9.31	6.95	5.19
Washington	0.00	0.00	0.00	0.00	0.00	2.02	0.00	0.09
Wayne	0.57	0.30	0.00	0.64	0.06	0.30	0.66	0.19
REGIONAL TOTALS	19.63	13.14	11.19	14.36	13.88	20.65	13.80	13.64
Northeastern Region								
Daggett	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00
Duchesne	1.87	0.60	0.78	0.43	0.81	2.23	1.30	5.29
Uintah	0.57	5.78	0.16	0.79	1.49	0.30	0.00	5.19
REGIONAL TOTALS	2.44	6.38	0.93	1.21	2.30	2.83	1.31	10.48
Southeastern Region								
Carbon	0.93	1.13	0.62	0.86	1.87	0.91	3.38	0.93
Emery	7.18	1.35	3.73	1.14	2.68	1.52	5.26	6.86
Grand	2.23	2.70	0.39	0.36	2.12	12.55	8.26	4.17
San Juan	0.05	0.00	0.00	0.36	0.00	0.00	0.09	0.74
REGIONAL TOTALS	10.41	5.18	4.74	2.70	6.65	14.98	17.00	12.71
Unknown Counties	0.00	0.75	0.00	0.00	0.06	3.64	0.00	1.21
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 8. Percentage distribution of chukar hunting pressure by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	12.95	16.59	14.18	21.53	15.42	12.02	14.18	17.29
Cache	3.16	3.80	5.94	3.73	4.03	4.40	1.80	3.81
Davis	0.83	1.34	0.75	1.48	3.13	0.45	1.49	0.37
Morgan	0.49	1.75	0.91	1.79	1.76	1.67	1.30	0.37
Rich	0.29	0.51	0.48	1.43	0.43	0.33	0.74	0.06
Summit	1.04	0.26	0.37	0.72	0.14	1.39	0.19	0.19
Weber	0.45	0.72	1.39	1.64	1.52	2.34	0.87	1.56
REGIONAL TOTALS	19.24	24.96	24.02	32.33	26.4	22.59	20.56	23.66
Central Region								
Juab	6.41	5.55	4.87	7.06	6.93	6.18	3.10	6.30
Salt Lake	2.16	2.05	1.71	1.28	3.61	1.28	1.49	0.87
Sanpete	5.03	6.37	4.12	5.27	4.70	5.18	6.44	5.24
Tooele	24.07	19.62	25.25	15.70	17.84	19.20	17.52	13.73
Utah	11.32	13.20	10.59	15.24	18.88	11.41	15.73	10.61
Wasatch	0.16	0.26	0.16	1.33	0.90	0.78	0.43	0.37
REGIONAL TOTALS	49.18	47.05	46.71	45.88	52.85	44.02	44.71	37.14
Southern Region								
Beaver	2.49	1.44	3.53	3.22	1.19	1.28	4.12	3.75
Garfield	0.33	0.82	0.59	0.10	0.28	0.67	0.56	1.00
Iron	0.00	0.36	0.86	0.56	0.43	0.11	0.31	0.12
Kane	0.00	0.00	0.05	0.10	0.00	0.78	0.06	0.37
Millard	6.95	5.60	3.48	4.19	3.08	5.34	4.15	4.81
Piute	1.37	1.44	2.03	0.72	0.81	1.28	2.48	1.37
Sevier	10.53	7.60	6.37	5.73	8.49	10.57	12.20	13.05
Washington	0.00	0.00	0.27	0.20	0.05	0.61	0.00	0.06
Wayne	0.24	0.77	0.05	0.26	0.24	0.61	0.19	0.81
REGIONAL TOTALS	21.94	18.03	17.23	15.09	14.56	21.26	21.36	25.34
Northeastern Region								
Daggett	0.00	0.00	0.59	0.00	0.00	0.17	0.00	0.00
Duchesne	0.70	0.56	1.98	1.59	0.33	2.39	1.18	2.56
Uintah	0.66	1.85	1.18	0.72	1.52	0.45	0.62	2.37
REGIONAL TOTALS	1.37	2.41	3.75	2.30	1.85	3.01	1.80	4.93
Southeastern Region								
Carbon	0.58	1.85	2.68	1.33	1.14	0.89	2.79	0.87
Emery	6.03	3.18	5.14	1.89	2.32	2.06	5.51	4.81
Grand	1.41	2.00	0.48	0.66	0.47	4.29	2.97	2.18
San Juan	0.08	0.00	0.00	0.51	0.14	0.00	0.31	0.12
REGIONAL TOTALS	8.11	7.04	8.29	4.40	4.08	7.23	11.58	7.99
Unknown Counties	0.12	0.51	0.00	0.00	0.24	1.89	0.00	0.94
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 9. Statewide summary of chukar partridge harvest statistics, 1958-95.

Year	Total Hunters	Total Harvest	Hunter-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
1983	10,418	29,649	31,904	0.93	2.85
1984	9,846	20,179	30,715	0.66	2.05
1985	7,930	20,938	24,346	0.86	2.64
1986	9,397	25,346	31,672	0.80	2.70
1987	11,276	32,848	39,099	0.84	2.91
1988	11,237	32,057	40,088	0.80	2.85
1989	10,910	27,628	40,384	0.68	2.53
1990	11,195	26,486	38,463	0.69	2.37
1991	10,577	24,355	34,010	0.72	2.30
1992	11,125	28,599	37,463	0.76	2.57
1993	10,128	18,774	34,147	0.55	1.85
1994	8,455	18,721	28,389	0.66	2.21
1995	9,097	20,954	31,140	0.67	2.30
Totals (1958-95)	505,419	1,400,011	1,529,543	—	—
Averages (1958-94)	13,805	38,369	41,699	0.89	2.70

Table 10. Chukar field bag check summary, 1995.

Region and County	All Hunts				Complete Hunts				
	Total Parties	Total Hunters	Total Hours	Total Birds	Complet Hunts	Total Hunters	Total Hours	Total Birds	Birds/ 100 Hr Hunter
Northern Region									
Box Elder	--	--	--	--	--	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--
Central Region									
Juab	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--
Utah	7	19	56	9	5	12	49	9	18
Wasatch	--	--	--	--	--	--	--	--	0.75
REGIONAL TOTALS	7	19	56	9	5	12	49	9	18
Southern Region									
Beaver	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--
Plute	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--
Northeastern Region									
Daggett	--	--	--	--	--	--	--	--	--
Duchesne	--	--	--	--	--	--	--	--	--
Uintah	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--
Southeastern Region									
Carbon	--	--	--	--	--	--	--	--	--
Emery	15	33	137	90	15	33	137	90	66
Grand	24	61	233	90	10	19	103	34	2.73
San Juan	--	--	--	--	--	--	--	--	1.79
REGIONAL TOTALS	39	94	370	180	25	52	240	124	52
STATE TOTALS	46	113	426	189	30	64	289	133	46

Table 11. Chukkar hunter success trend as determined by field bag check, 1990-95.

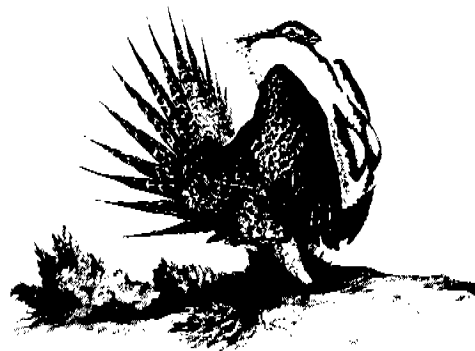
Region and County	1990		1991		1992		1993		1994		1995	
	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter
Northern Region												
Box Elder	133	4.00	--	--	--	--	--	--	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	133	4.00	--	--	--	--	--	--	--	--	--	--
Central Region												
Juab	116	7.00	67	2.00	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	53	1.25	--	--	--	--	--	--	--	--
Tooele	--	--	1	0.07	--	--	--	--	--	--	--	--
Utah	10	2.00	67	2.00	--	--	--	--	--	--	18	0.75
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	48	1.36	13	0.70	--	--	--	--	--	--	18	0.75
Southern Region												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--
Northeastern Region												
Daggett	--	--	--	--	--	--	--	--	--	--	--	--
Duchesne	38	1.50	--	--	--	--	--	--	--	--	--	--
Uintah	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	38	1.50	--	--	--	--	--	--	--	--	--	--
Southeastern Region												
Carbon	--	--	--	--	--	--	--	--	--	--	--	--
Emery	33	1.00	--	--	59	1.74	--	--	--	--	66	2.73
Grand	--	--	--	--	--	--	41	2.36	102	3.14	33	1.79
San Juan	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	33	1.00	--	--	59	1.74	41	2.36	102	3.14	52	2.38
STATE TOTALS	49	1.44	13	0.70	59	1.74	41	2.36	102	3.14	46	2.08

SAGE GROUSE

SUMMARY

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Strutting ground count surveys indicated a 19 percent decrease in the average male grouse attendance from 1994.

Brood surveys showed decreased production per 100 adults throughout the state. Birds observed per 100 hours decreased 82 percent from 1994, and was 68 percent below average. Reproductive efforts in 1995 were fair. Summer brood survival was poor however. Below average temperatures from April through July combined with above average precipitation from March through June may have contributed.

Harvest was 35 percent below the long-term average.

Age ratios derived from wings indicated a 23 percent decrease in young per 100 adults and a 83 percent increase in young per 100 adult hens. Hunter numbers increased 17 percent in 1995 but remain 19 percent below the long-term average.

Since 1959, numerous new strutting grounds have been discovered throughout Utah. However, average number of male grouse per ground has declined drastically. A decline in the average number of grouse per ground seems to be representative of Utah sage grouse populations.

Recent DNA and physiological studies indicate that two distinct species of sage grouse exist in Utah. The smaller species is located south and east of the Colorado River.

Declines in sage grouse populations are attributed to loss and changes in sage brush habitats throughout the West. Spraying, urban and industrial development, burning and overgrazing by domestic livestock have altered critical sage grouse habitat.

Based on studies conducted in Utah in the early 1970s, estimated harvest of the sage grouse population was 20 percent (within the harvestable surplus). The amount of pressure on sage grouse populations was more than double what it is currently. Hunting pressure at current levels is not affecting populations.

There is much discussion about the status and future of sage grouse at the "Western States" level. Utah should place high priority on collecting as much annual biological data as possible on sage grouse populations in order to make the best management decisions possible.

Strutting Ground Counts

The status of the sage grouse breeding population for 1995, as indicated by strutting ground counts, is shown in Table 1 and Figure 1 of this section. Results of this survey for 1995 compared to 1994 and the 1967-94 average follow:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Number of grounds counted	131	+8	+20
Total male grouse counted	1,230	-8	-38
Average male grouse per ground	9	-19	-50
Percent change from previous year (comparable grounds)	--		

Access for spring 1995 strutting ground counts was generally good in most regions of the state. The numbers of male grouse observed decreased 8 percent statewide and average number of males per ground decreased 19 percent.

Brood Counts

Results of the summer inventory survey for 1995 are found in Table 2. Long-term trends of young per adult ratios, mean brood size and sage grouse observed per 100 hours are shown in Tables 3-5 and Figure 2. Indices for 1995 are compared to 1994 and the previous 10-year (1985-94) average as follows:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Total sage grouse counted	113	-61	-88
Young per 100 adults	122	-50	-22
Mean brood size	4.43	-9	+2
Sage grouse observed per 100 hours	102	-82	-68
Total hours effort	111	+118	-60

The effort devoted to sage grouse brood counts was 60 percent below average, and the total number of grouse counted was 88 percent below average.

Total sage grouse counted decreased 61 percent in 1995, while production of young per 100 adults decreased 50 percent. The average brood size was 2 percent above the 10-year average.

Above average precipitation in March-June and below normal temperatures during the nesting season may have hindered sage grouse reproductive efforts in 1995.

FIGURE 1. SAGE GROUSE STRUTTING
GROUND COUNTS, 1959-95

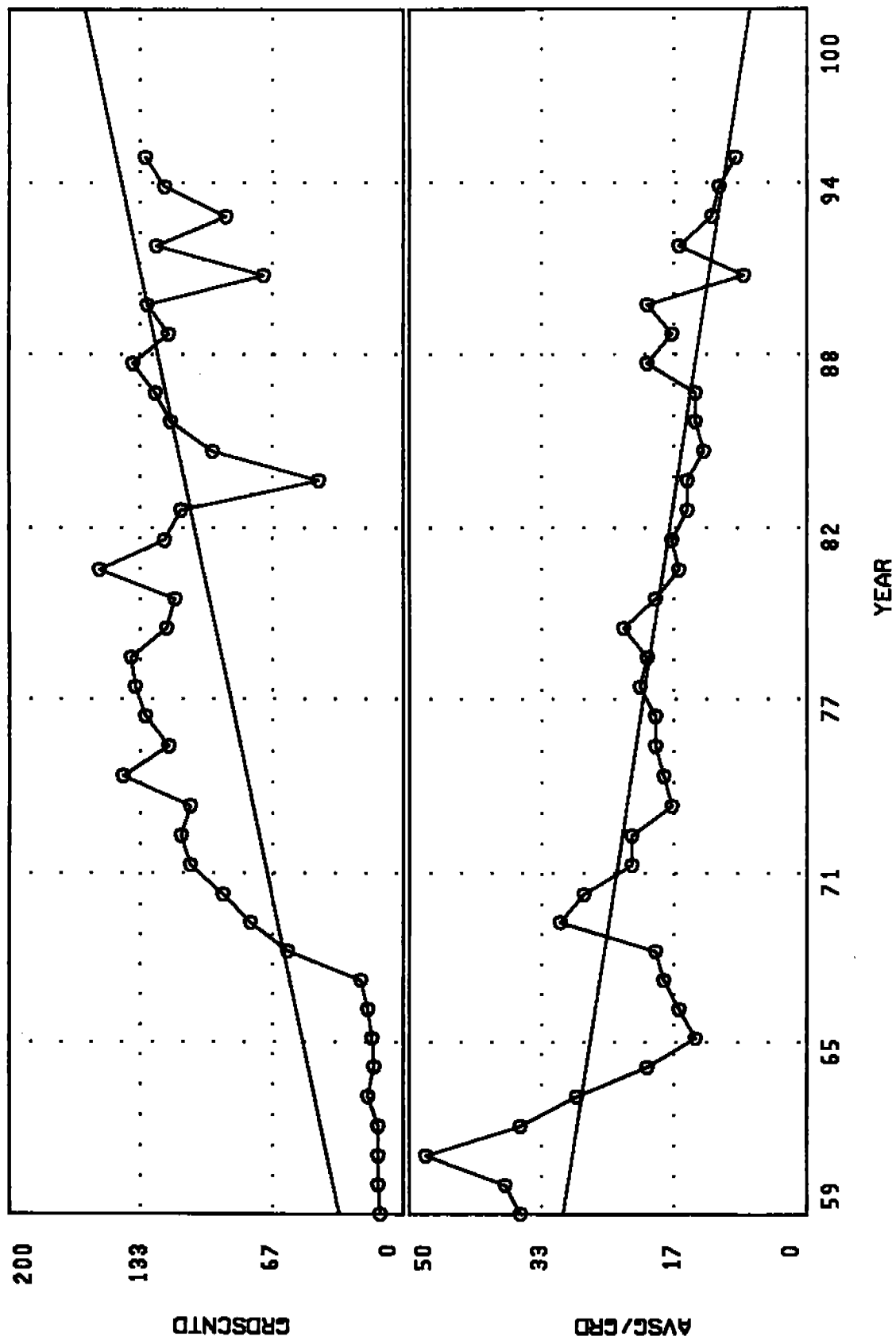
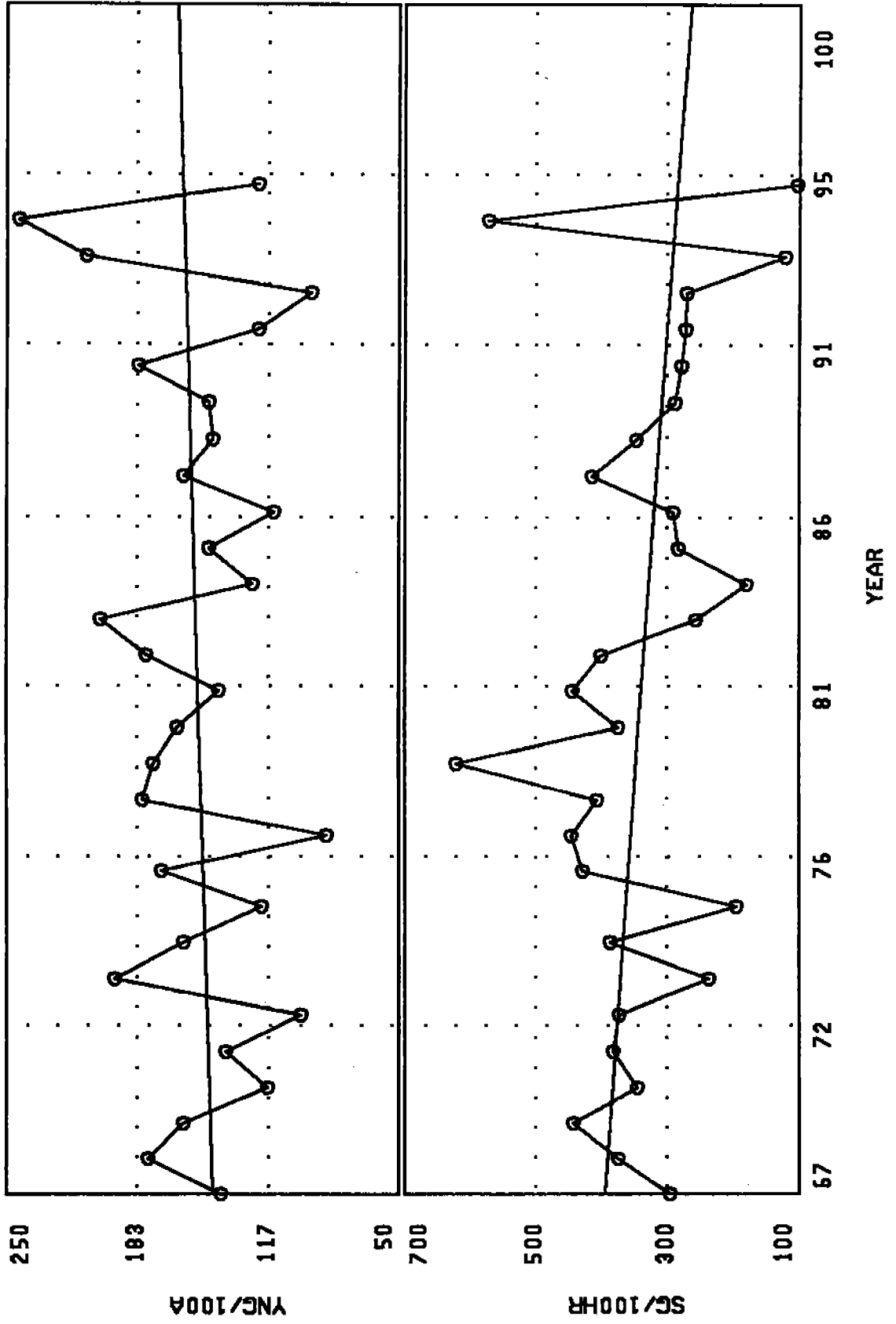


FIGURE 2. SAGE GROUSE PRODUCTION INDICES, 1967-95.



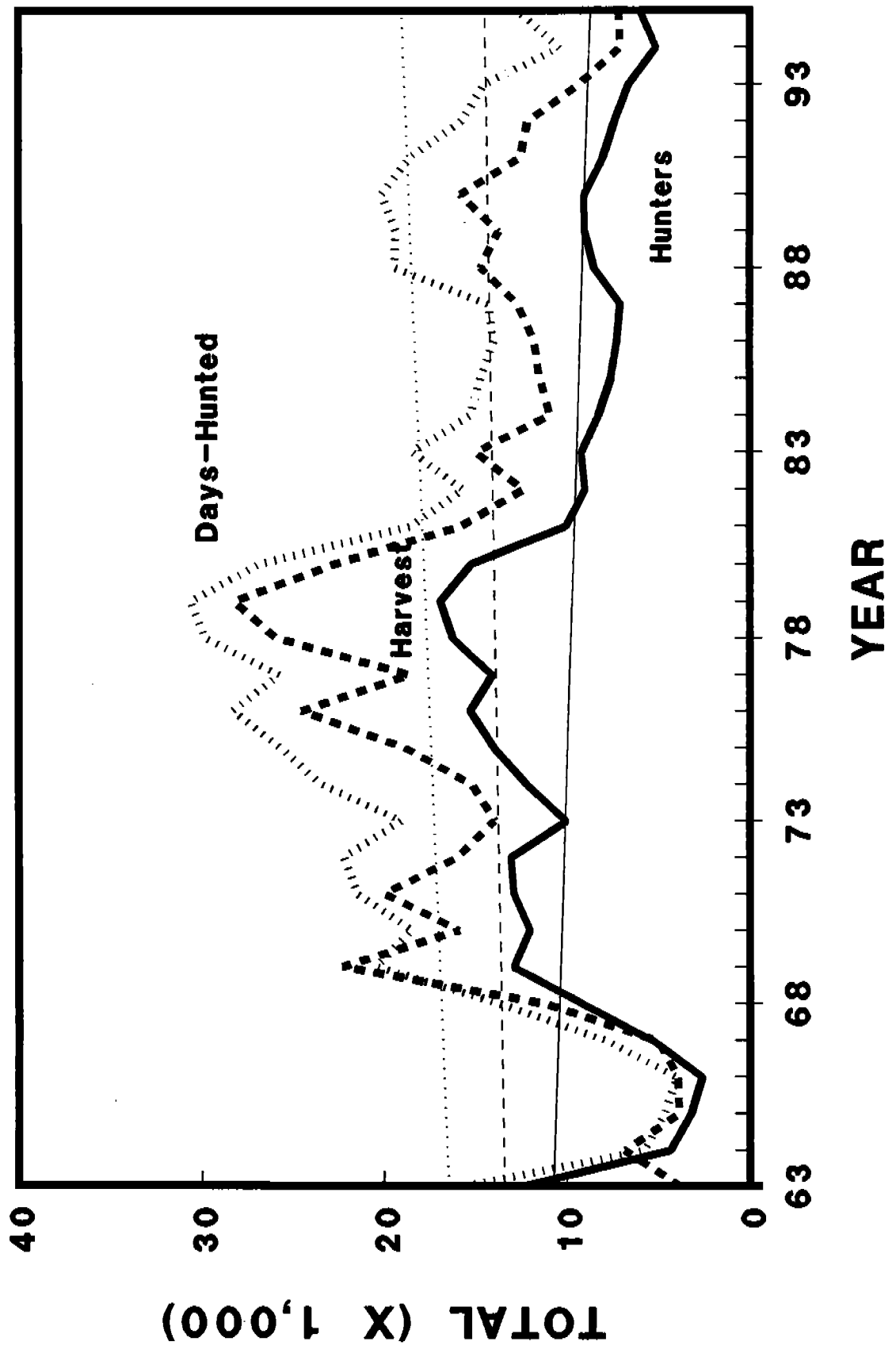


Figure 3. Statewide trends of sage grouse harvest statistics, 1963-95.

SAGE GROUSE PER HUNTER AND PER DAY

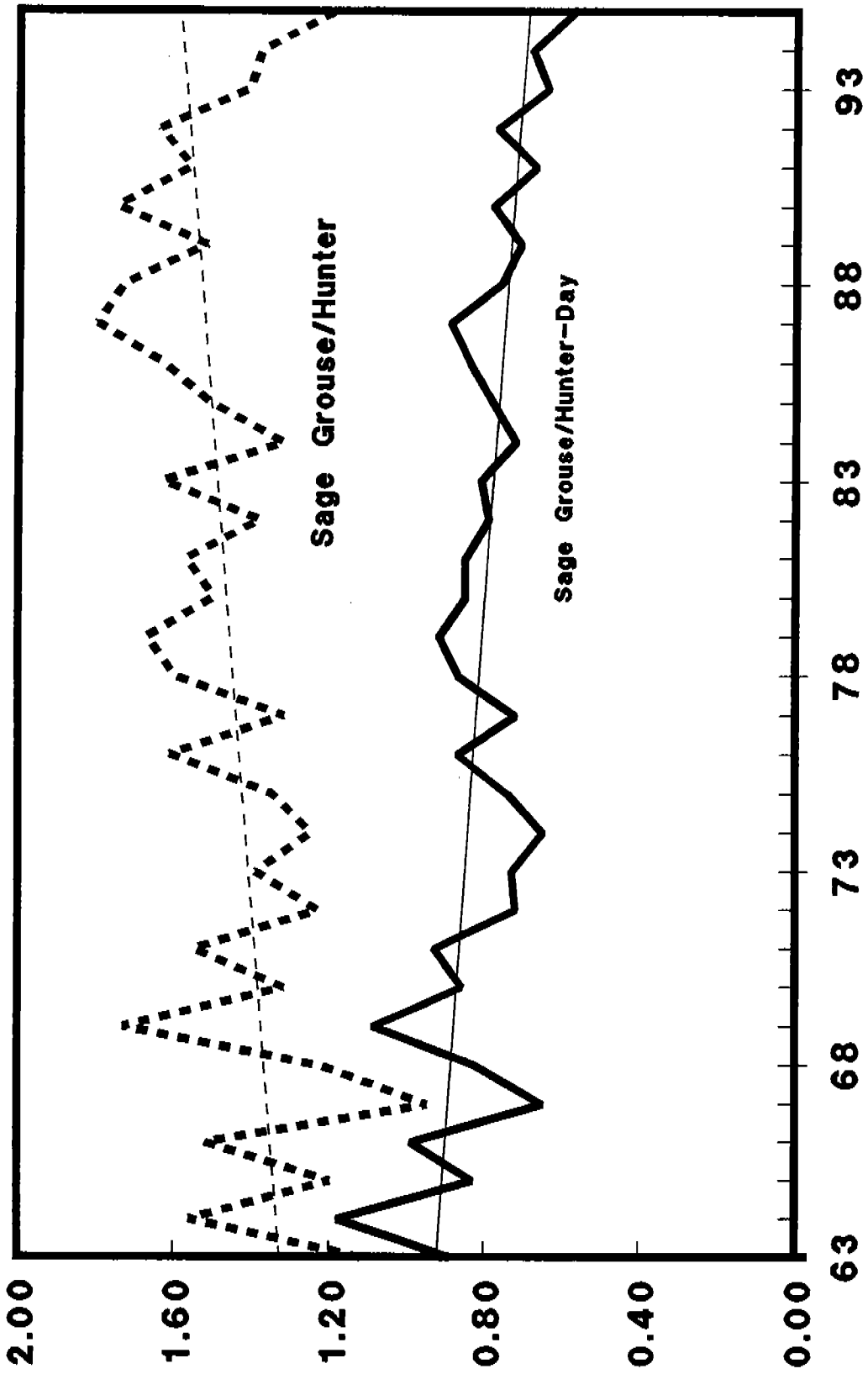
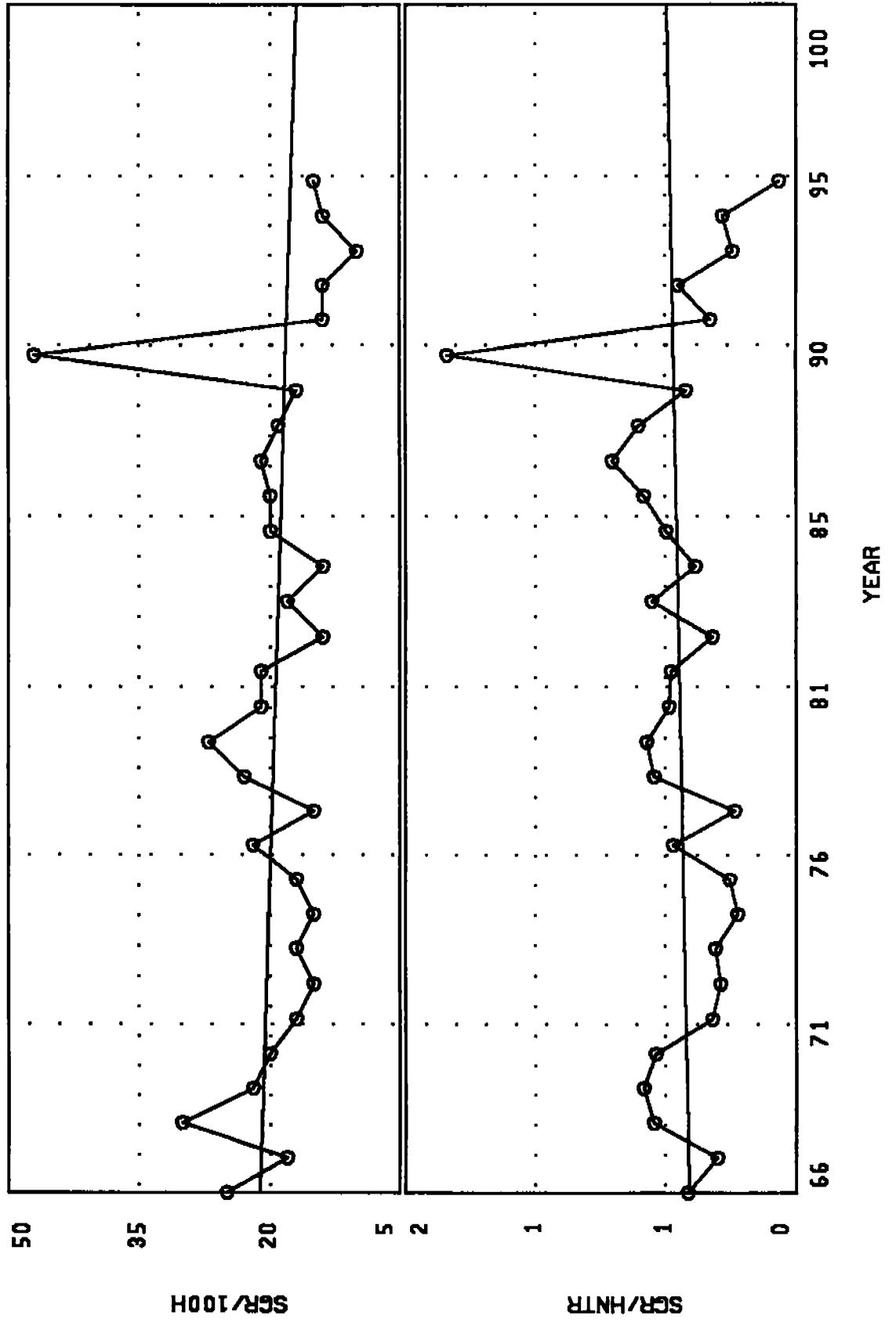


Figure 4. Statewide trends of sage grouse hunter success rates, 1963-95.

FIGURES. SAGE GROUSE FIELD BAG
CHECK INDICES, 1966-95.



Harvest

Hunter Questionnaire

Results of the 1995 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 1995 hunting season compared to 1994 and the previous 45-year average follow:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Sage grouse hunters	5,987	+17	-19
Sage grouse harvested	7,133	+1	-35
Hunter-days afield	12,615	+21	-4
Sage grouse per hunter-day	0.57	-16	-7
Sage grouse per hunter	1.19	-14	-35

Ninety percent confidence interval for overall sage grouse harvest is +/- 1,086.38. Standard deviation is 0.871344.

Sage grouse per hunter-day success rate decreased 16 percent in 1995. Total statewide harvest increased 1 percent, and there was a 17 percent increase in total sage grouse hunters. Twenty-six percent of the harvest and 40 percent of the hunting pressure still occurred in the Northern Region.

Long-term sage grouse harvest trends are shown in Figures 3 and 4.

Field Bag Checks

A summary of field bag check data for 1995 is shown in Table 11. Hunter success trends determined via this method are shown in Table 12 and Figure 5. Results of the 1995 survey compared to 1994 and the 10-year (1985-94) average follow:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Total hunters checked	250	-58	-71
Total hours hunted	600	-80	-86
Sage grouse per hunter (complete hunts)	0.48	-31	-51
Sage grouse bagged per 100 hours	20	+43	+6
Average hours per hunter-day (complete hunts)	2.40	-52	-54
Hours hunted per grouse bagged (complete hunts)	4.95	-55	-23

Hunter success rates from field bag checks showed decreased success on the opening weekend of 1995. Sage grouse bagged per 100 hours increased 43 percent. Average hours per hunter day decreased 52 percent from 1994. Average hours per grouse bagged decreased 55 percent.

Sex and Age Composition of the Harvest

A summary of the sex and age composition of harvested sage grouse in 1995 is found in Table 13 and the trend from 1992-95 in Table 14.

Following are data derived from wing surveys in 1995 compared to 1994 and the 1985-94 average:

	<u>1995</u>	Percent change from <u>1994</u>	Percent change from <u>Average</u>
Sample size	545	-34	-35
Percent males	43	+10	+8
Percent females	57	-7	-5
Young per 100 adults	119	-23	-19
Young per 100 hens (adult)	185	+83	-6

Analysis of wings collected at checking stations during the 1995 season indicates that statewide production was up 83 percent compared to 1994, and was 6 percent below the long-term average.

This data substantiates that brood survival over the summer of 1995 was poor when compared to brood count data collected earlier in the year.

Table 1. Summary of sage grouse strutting ground counts by region and county, 1985-95.

Region and County	Year											
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Northern Region												
Box Elder												
No. Strutting Grounds Counted	32	10	18	15	11	20	16	13	8	14	4	
Total Male Grouse Counted	309	288	314	419	343	327	--	307	250	220	134	
County Average (all strutting grounds)	10	29	18	28	31	23	21	24	17	16	34	
% Change From Previous Year - Comparable Grounds	7	17	-12	33	-3	-17	-11	8	-7	-23	-14	
Cache												
No. Strutting Grounds Counted	0	2	1	1	2	--	--	3	--	2	2	
Total Male Grouse Counted	--	8	0	9	15	--	--	27	--	9	9	
County Average (all strutting grounds)	--	4	0	9	8	--	--	9	--	5	5	
% Change From Previous Year - Comparable Grounds	--	--	--	100	40	--	--	--	--	--	--	
Morgan												
No. Strutting Grounds Counted	3	3	2	1	--	--	--	1	--	--	1	
Total Male Grouse Counted	33	22	26	19	--	--	--	39	--	--	24	
County Average (all strutting grounds)	11	7	13	19	--	--	--	39	--	--	24	
% Change From Previous Year - Comparable Grounds	1,000	-33	18	-21	--	--	--	--	--	--	60	
Rich												
No. Strutting Grounds Counted	18	11	12	3	6	19	22	14	14	29	26	
Total Male Grouse Counted	399	296	431	319	281	863	710	372	314	325	273	
County Average (all strutting grounds)	22	27	36	53	47	41	32	27	19	11	11	
% Change From Previous Year - Comparable Grounds	49	-28	53	-10	5	-7	-18	-38	-51	-46	--	
Summit												
No. Strutting Grounds Counted	0	7	7	10	--	--	--	3	--	1	8	
Total Male Grouse Counted	--	23	25	17	--	--	--	0	--	15	--	
County Average (all strutting grounds)	--	3	4	2	--	--	--	--	--	15	--	
% Change From Previous Year - Comparable Grounds	--	--	-65	-32	--	--	--	--	--	-29	--	
REGIONAL TOTALS												
No. Strutting Grounds Counted	53	33	40	33	19	39	38	34	22	46	41	
Total Male Grouse Counted	741	637	806	783	639	1,190	710	745	564	569	440	
Average Grouse Per Ground (all strutting grounds)	14	19	20	24	34	31	27	26	18	14	18	
% Change From Previous Year - Comparable Grounds	27	-8	16	11	5	--	-15	-15	-29	-33	--	

Table 1 (continued)

Region and County	Year											
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Central Region												
Juab												
No. Strutting Grounds Counted	--	--	1	1	1	1	1	3	3	1	1	1
Total Male Grouse Counted	--	--	9	14	11	4	15	5	0	0	1	1
County Average (all strutting grounds)	--	--	9	14	11	4	15	2	0	0	1	1
% Change From Previous Year - Comparable Grounds	--	--	0	56	-21	-63	--	-100	-100	0	100	100
Sanpete												
No. Strutting Grounds Counted	2	2	2	2	2	2	2	--	2	--	--	--
Total Male Grouse Counted	0	0	0	0	0	0	0	--	0	--	--	--
County Average (all strutting grounds)	--	--	--	0	0	0	--	--	0	--	--	--
% Change From Previous Year - Comparable Grounds	0	0	0	0	0	0	--	--	0	--	--	--
Tooele												
No. Strutting Grounds Counted	6	6	5	5	5	5	5	4	4	4	4	4
Total Male Grouse Counted	55	82	96	89	77	91	82	100	11	12	12	12
County Average (all strutting grounds)	9	16	19	18	15	18	16	25	5	3	3	3
% Change From Previous Year - Comparable Grounds	139	149	17	-5	-17	20	-15	32	-87	-40	0	0
Wasatch												
No. Strutting Grounds Counted	2	2	2	2	2	2	2	2	2	2	2	2
Total Male Grouse Counted	63	117	54	52	44	51	11	49	45	24	24	24
County Average (all strutting grounds)	32	59	27	26	22	26	6	24	37	12	12	12
% Change From Previous Year - Comparable Grounds	11	205	-54	-4	-19	18	-75	300	-9	-12	0	0
REGIONAL TOTALS												
No. Strutting Grounds Counted	10	10	7	10	10	10	10	9	11	7	7	7
Total Male Grouse Counted	118	199	150	155	132	146	108	154	56	36	37	37
Average Grouse Per Ground (all strutting grounds)	12	18	17	16	13	15	12	17	14	5	5	5
% Change From Previous Year - Comparable Grounds	48	170	-25	-3	-16	11	-45	77	-65	16	--	--

Table 1 (continued)

Region and County	Year											
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Southern Region												
Beaver												
No. Strutting Grounds Counted	3	4	4	3	5	2	--	3	1	4	7	
Total Male Grouse Counted	45	55	52	46	71	33	--	68	49	57	57	
County Average (all strutting grounds)	15	14	13	15	14	16	41	19	49	14	8	
% Change From Previous Year - Comparable Grounds	--	22	-5	--	-7	--	--	-54	47	--	-7	
Garfield												
No. Strutting Grounds Counted	--	8	9	8	8	10	--	9	6	11	11	
Total Male Grouse Counted	--	152	175	251	126	244	--	211	77	145	139	
County Average (all strutting grounds)	--	19	19	31	16	24	35	23	11	13	13	
% Change From Previous Year - Comparable Grounds	--	13	0	24	-50	--	--	-23	-50	78	0	
Iron												
No. Strutting Grounds Counted	5	6	4	6	6	3	--	2	1	3	2	
Total Male Grouse Counted	81	131	64	111	127	50	--	43	41	39	26	
County Average (all strutting grounds)	16	22	16	19	21	20	52	21	41	13	13	
% Change From Previous Year - Comparable Grounds	--	49	-11	-13	14	--	--	-36	24	0	-14	
Kane												
No. Strutting Grounds Counted	--	--	--	--	2	--	--	3	2	2	3	
Total Male Grouse Counted	--	--	--	--	41	--	--	30	11	1	2	
County Average (all strutting grounds)	--	--	--	--	21	--	14	10	6	1	1	
% Change From Previous Year - Comparable Grounds	--	--	--	--	--	--	--	-28	-61	0	0	
Millard												
No. Strutting Grounds Counted	1	1	--	--	--	--	--	--	--	--	--	
Total Male Grouse Counted	2	3	--	--	--	--	--	--	--	--	--	
County Average (all strutting grounds)	2	3	--	--	--	--	--	--	--	--	--	
% Change From Previous Year - Comparable Grounds	--	33	--	--	--	--	--	--	--	--	--	
Sevier												
No. Strutting Grounds Counted	--	2	--	2	--	--	1	3	--	1	1	
Total Male Grouse Counted	--	0	--	0	--	--	20	22	--	11	12	
County Average (all strutting grounds)	--	--	--	--	--	--	20	7	--	11	12	
% Change From Previous Year - Comparable Grounds	--	--	--	--	--	--	--	--	--	1,100	9	
Wayne												
No. Strutting Grounds Counted	--	13	13	13	13	10	16	12	--	8	11	
Total Male Grouse Counted	--	120	182	326	268	259	367	289	--	163	206	
County Average (all strutting grounds)	--	9	14	25	21	26	23	22	--	20	19	
% Change From Previous Year - Comparable Grounds	--	-15	79	-18	--	--	--	--	--	-8	11	
REGIONAL TOTALS												
No. Strutting Grounds Counted	21	34	30	32	34	25	17	32	10	29	35	
Total Male Grouse Counted	391	461	473	734	633	596	387	663	178	416	442	
Average Grouse Per Ground (all strutting grounds)	19	14	16	23	19	24	31	17	18	12	11	
% Change From Previous Year - Comparable Grounds	--	12	13	48	-18	--	--	-35	-10	234	--	

* No counts because of snow. Aerial count made in Wayne County only (not added to regional total).

Table 1 (continued)

Region and County	Year											
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Northeastern Region												
Daggett												
No. Strutting Grounds Counted	5	6	6	6	7	6	--	6	3	3	5	
Total Male Grouse Counted	25	22	26	46	25	42	--	17	14	11	25	
County Average (all strutting grounds)	5	3	4	8	4	7	--	3	5	4	5	
% Change From Previous Year - Comparable Grounds	-43	--	16	77	-24	24	--	--	-7	-21	-18	
Duchesne												
No. Strutting Grounds Counted	13	14	14	7	11	15	--	16	15	9	5	
Total Male Grouse Counted	121	117	104	9	76	173	--	129	87	37	40	
County Average (all strutting grounds)	9	8	7	1	7	12	--	8	6	4	8	
% Change From Previous Year - Comparable Grounds	-29	--	-12	-83	167	22	--	--	-10	-51	14	
Grand												
No. Strutting Grounds Counted	--	--	--	2	--	--	--	--	--	1	--	
Total Male Grouse Counted	--	--	--	5	--	--	--	--	--	0	--	
County Average (all strutting grounds)	--	--	--	3	--	--	--	--	--	--	--	
% Change From Previous Year - Comparable Grounds	--	--	--	0	--	--	--	--	--	--	--	
Uintah												
No. Strutting Grounds Counted	12	14	14	22	20	20	--	22	22	18	29	
Total Male Grouse Counted	190	216	159	468	266	321	--	287	173	208	197	
County Average (all strutting grounds)	16	15	11	21	13	16	--	13	8	12	7	
% Change From Previous Year - Comparable Grounds	-21	--	-26	66	-45	0	--	--	-34	-4	-30	
Wasatch												
No. Strutting Grounds Counted	--	--	--	2	2	--	--	--	--	2	3	
Total Male Grouse Counted	--	--	--	22	22	--	--	--	--	8	9	
County Average (all strutting grounds)	--	--	--	11	11	--	--	--	--	4	3	
% Change From Previous Year - Comparable Grounds	--	--	--	120	0	--	--	--	--	-11	13	
REGIONAL TOTALS												
No. Strutting Grounds Counted	30	34	34	37	40	41	--	44	40	33	42	
Total Male Grouse Counted	336	339	289	550	389	536	--	433	274	264	271	
Average Grouse Per Ground (all strutting grounds)	11	10	9	15	10	13	--	5	6	6	7	
% Change From Previous Year - Comparable Grounds	-26	--	-18	37	-37	9	--	--	-27	-18	-22	

Table 1 (continued)

Region and County	Year											
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Southeastern Region												
Carbon												
No. Strutting Grounds Counted	--	2	7	10	10	9	8	8	3	7	--	--
Total Male Grouse Counted	--	32	55	196	181	146	103	40	14	3	--	--
County Average (all strutting grounds)	--	16	8	20	18	16	13	5	5	0	--	--
% Change From Previous Year - Comparable Grounds	--	--	-27	142	-8	-38	-11	-61	-46	-79	--	--
Emery												
No. Strutting Grounds Counted	1	1	2	2	2	2	2	2	3	2	2	2
Total Male Grouse Counted	12	11	10	12	28	5	7	7	3	5	0	0
County Average (all strutting grounds)	12	11	5	6	14	3	4	4	1	3	0	0
% Change From Previous Year - Comparable Grounds	--	-8	-18	20	167	-82	40	0	-57	67	-250	-250
San Juan												
No. Strutting Grounds Counted	4	4	4	4	4	4	4	4	4	4	4	4
Total Male Grouse Counted	39	29	35	32	39	41	32	40	44	41	40	40
County Average (all strutting grounds)	10	7	9	8	10	10	8	10	11	10	10	10
% Change From Previous Year - Comparable Grounds	-29	-26	28	-9	22	5	-22	25	10	-7	-2	-2
REGIONAL TOTALS												
No. Strutting Grounds Counted	4	7	13	16	16	15	6	6	7	6	6	6
Total Male Grouse Counted	39	72	100	240	248	192	47	55	50	53	40	40
Average Grouse Per Ground (all strutting grounds)	10	10	8	15	16	13	8	9	7	9	7	7
% Change From Previous Year - Comparable Grounds	-29	-26	0	74	3	-35	2	-12	-31	-6	--	--
STATE TOTALS												
No. Strutting Grounds Counted	97	118	126	137	119	130	71	125	90	121	131	131
Total Male Grouse Counted	1,234	1,708	1,818	2,734	2,041	2,660	1,252	2,050	1,122	1,338	1,230	1,230
Average Grouse Per Ground (all strutting grounds)	13	14	14	20	17	20	18	16	12	11	9	9
% Change From Previous Year - Comparable Grounds	-1	5	2	51	14	-2	-11	3	-32	39	--	--

Table 2. Sage grouse summer inventory, 1995.

Region and County	Distinct Broods		Mixed Young & Adults		Mean Brood	Total Adults w/ Young	Total Young	Total Young/100 Adult	Hours of Effort			Birds/100 Hr		
	# Adults	Young	Adults	Young					Vehicle Miles	Horse	Walk		Total	
Northern Region														
Box Elder	0	0	0	0	--	1	0	--	117	8	12	3	23	4
Cache	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Rich	3	3	16	6.33	--	36	16	41	--	--	75	--	76	73
Summit	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	3	3	16	6.33	0	37	16	40	117	8	87	3	98	57
Central Region														
Juab	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sarpete	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Southern Region														
Beaver	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Northeastern Region														
Daggett	5	5	21	4.20	0	3	21	263	55	4	--	--	4	829
Duchesne	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Uintah	6	6	25	4.17	0	7	25	192	102	8	2	0	10	388
REGIONAL TOTALS	11	11	46	4.18	0	--	46	418	157	11	2	0	13	429
Southeastern Region														
Carbon	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--	--	--
STATE TOTALS	14	14	62	4.43	0	37	62	122	274	19	89	3	111	102

Table 3. Trend of sage grouse young per 100 adults, 1985-95.

Region and County	Year													Average 1985-94
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1985-94		
Northern Region														
Box Elder	265	178	94	108	167	267	161	143	92	94	--	--	--	
Cache	--	--	--	--	--	500	--	--	--	--	--	--	--	
Davis	--	--	--	--	--	--	--	--	--	--	--	--	--	
Morgan	300	--	500	--	117	--	--	--	--	--	--	--	--	
Rich	96	91	116	153	--	100	67	125	217	433	41	--	--	
Summit	400	167	50	--	--	--	--	--	--	--	--	--	--	
Weber	--	--	--	--	--	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	130	103	115	135	156	235	93	132	133	145	40	138	138	
Central Region														
Juab	--	--	--	380	250	196	--	450	450	--	--	--	--	
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--	--	
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--	--	
Tooele	125	106	207	100	194	110	287	300	300	156	--	--	--	
Utah	--	--	--	150	--	--	1,200	--	--	--	--	--	--	
Wasatch	43	200	209	300	--	667	--	129	350	--	--	--	--	
REGIONAL TOTALS	64	120	209	135	177	166	344	148	357	156	--	188	188	
Southern Region														
Beaver	43	--	35	--	--	--	--	--	--	--	--	--	--	
Garfield	229	125	144	144	40	91	129	--	--	--	--	--	--	
Iron	--	250	198	146	155	264	100	--	--	--	--	--	--	
Kane	--	--	400	--	--	--	--	--	--	--	--	--	--	
Millard	--	--	--	--	--	--	--	--	--	--	--	--	--	
Piute	--	--	38	--	--	--	--	--	--	--	--	--	--	
Sevier	--	--	--	--	525	--	500	--	--	--	--	--	--	
Washington	--	--	--	--	--	--	--	--	--	--	--	--	--	
Wayne	152	44	455	86	--	168	478	43	--	--	--	--	--	
REGIONAL TOTALS	137	105	216	127	135	154	128	40	--	--	--	130	130	
Northeastern Region														
Daggett	170	100	124	181	433	533	650	190	--	600	263	--	--	
Duchesne	297	180	137	288	217	600	160	--	260	--	--	--	--	
Uintah	261	127	192	164	148	352	114	278	500	263	192	--	--	
REGIONAL TOTALS	255	131	159	172	155	374	161	246	380	532	418	256	256	
Southeastern Region														
Carbon	400	133	150	--	56	33	200	33	200	--	--	--	--	
Emery	--	--	--	--	--	--	--	--	--	--	--	--	--	
Grand	--	--	--	--	--	--	--	31	--	50	--	--	--	
San Juan	88	60	--	200	50	50	200	50	--	--	--	--	--	
REGIONAL TOTALS	122	81	150	200	55	88	160	34	200	50	114	114	114	
STATE TOTALS	147	114	160	145	147	183	122	95	209	244	122	157	157	

Table 4. Trend of average brood size for sage grouse, 1985-95.

Region and County	Year														Average	
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1985-94	1985-94			
Northern Region																
Box Elder	5.31	3.57	3.88	33.80	3.80	4.25	3.71	4.17	3.67	5.00	--	--	--			
Cache	--	--	--	--	--	5.00	--	--	--	--	--	--	--			
Davis	--	--	--	--	--	--	--	--	--	--	--	--	--			
Morgan	3.00	--	5.00	--	7.00	--	--	--	--	--	--	--	--			
Rich	3.96	5.08	5.00	4.27	--	2.00	3.00	4.54	2.40	4.33	5.33	--	--			
Summit	--	4.00	5.00	4.00	--	--	--	--	--	--	--	--	--			
Weber	--	--	--	--	--	--	--	--	--	--	--	--	--			
REGIONAL TOTALS	4.39	4.74	4.82	4.17	4.30	3.67	3.36	4.36	3.09	4.50	5.33	4.14	4.14			
Central Region																
Juab	--	--	--	6.33	4.00	4.75	--	--	--	--	--	--	--			
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--	--			
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--	--			
Tooele	3.29	3.25	3.60	3.50	3.00	3.13	3.83	3.00	3.00	4.00	--	--	--			
Utah	--	--	--	--	--	--	12.00	--	--	--	--	--	--			
Wasatch	2.00	5.00	6.94	6.00	--	6.67	--	5.50	7.00	--	--	--	--			
REGIONAL TOTALS	2.56	3.60	5.42	4.29	3.40	4.27	5.00	4.67	4.00	4.00	4.12	4.12	4.12			
Southern Region																
Beaver	5.00	--	5.00	--	--	--	--	--	--	--	--	--	--			
Garfield	4.50	2.00	4.00	4.60	--	4.00	6.00	--	--	--	--	--	--			
Iron	--	4.00	4.64	3.67	4.66	6.00	5.00	--	--	--	--	--	--			
Kane	--	--	4.00	--	--	--	--	--	--	--	--	--	--			
Millard	--	--	--	--	--	--	--	--	--	--	--	--	--			
Plute	--	--	--	--	--	--	--	--	--	--	--	--	--			
Sevier	--	--	--	7.00	--	--	--	--	--	--	--	--	--			
Washington	--	--	--	--	--	--	--	--	--	--	--	--	--			
Wayne	3.57	6.00	6.14	6.29	--	4.30	5.00	3.82	--	--	--	--	--			
REGIONAL TOTALS	4.00	4.29	4.89	4.89	4.66	4.82	5.60	3.82	--	--	--	4.62	4.62			
Northeastern Region																
Daggett	3.00	1.00	4.00	4.45	4.30	6.00	2.00	6.00	--	6.00	4.20	--	--			
Duchesne	4.73	4.29	3.54	3.60	2.17	6.00	4.00	--	2.00	--	--	--	--			
Uintah	5.00	5.44	5.55	4.05	5.15	5.60	2.00	4.75	5.00	5.25	4.17	--	--			
REGIONAL TOTALS	4.43	4.94	4.59	4.09	4.58	5.63	2.57	4.89	4.50	5.32	4.18	4.55	4.55			
Southeastern Region																
Carbon	4.00	4.00	1.50	--	4.50	--	6.00	2.67	4.00	--	--	--	--			
Emery	--	--	--	--	--	--	--	--	--	--	--	--	--			
Grand	--	--	--	--	--	--	--	4.00	--	2.00	--	--	--			
San Juan	3.50	3.00	--	--	2.00	--	2.00	2.00	--	--	--	--	--			
REGIONAL TOTALS	3.67	3.40	1.50	--	3.67	--	4.00	2.80	4.00	2.00	--	4.31	4.31			
STATE TOTALS	4.04	4.53	4.86	4.29	4.37	4.71	3.70	4.21	3.68	4.86	4.43	4.43	4.43			

Table 5. Trend of sage grouse observed per 100 hours, 1985-95.

Region and County	Year											Average 1985-94
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Northern Region												
Box Elder	380	304	475	694	431	303	102	146	118	413	4	
Cache	--	--	0	3	--	126	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	19	--	19	--	100	--	--	--	--	--	--	--
Rich	288	282	364	287	--	41	304	261	89	--	73	--
Summit	--	21	480	300	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	186	198	251	271	64	78	155	197	103	613	57	212
Central Region												
Juab	0	--	--	150	311	323	--	367	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	242	746	742	150	252	150	414	100	133	263	--	--
Utah	267	92	792	27	19	209	1,300	254	45	--	--	--
Wasatch	--	--	--	--	--	--	--	254	--	--	--	--
REGIONAL TOTALS	244	310	776	118	154	200	338	248	100	263	--	275
Southern Region												
Beaver	429	--	575	--	--	--	--	--	--	--	--	--
Garfield	295	225	275	452	207	661	320	--	--	--	--	--
Iron	--	466	1,331	1,517	1,000	589	400	--	--	--	--	--
Kane	--	--	500	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--
Plute	--	316	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	417	--	--	150	829	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	358	344	793	542	--	900	511	411	--	--	--	--
REGIONAL TOTALS	342	300	732	574	705	781	314	402	--	--	--	519
Northeastern Region												
Daggett	284	114	492	474	168	585	1,000	580	--	1,400	829	--
Duchesne	325	165	382	141	123	350	81	--	900	--	--	--
Uintah	888	813	642	830	1,191	566	1,500	523	3,000	636	388	--
REGIONAL TOTALS	490	474	509	589	741	533	356	539	1,600	1,463	429	729
Southeastern Region												
Carbon	--	200	28	--	125	685	90	377	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	567	--	240	--	--
San Juan	231	400	--	--	150	120	100	300	--	--	--	--
REGIONAL TOTALS	235	271	28	--	129	386	100	239	26	80	--	211
STATE TOTALS	274	291	415	347	288	279	273	272	122	572	102	313

Table 6. Summary of sage grouse hunter success and distribution of harvest and hunter pressure by region and county, 1995.

REGION AND COUNTY	SAMPLE SIZE*	HUNTER-DAYS AFIELD	BIRDS BAGGED	BIRDS PER HUNTER-DAY	% OF PRESSURE	% OF HARVEST
NORTHERN REGION						
BOX ELDER	53	1,768	699	0.40	14.02	9.81
Cache**	22	796	213	0.27	6.32	3.00
Davis**	10	427	252	0.59	3.39	3.54
Morgan**	2	155	0	0.00	1.23	0.00
Rich	49	1,360	641	0.47	10.79	8.99
Summit**	4	155	19	0.13	1.23	0.27
Weber**	11	388	58	0.15	3.08	0.82
REGIONAL TOTALS	151	5,053	1,885	0.37	40.06	26.43
CENTRAL REGION						
Juab**	3	174	330	1.89	1.39	4.63
Salt Lake**	1	19	0	0.00	0.15	0.00
Sanpete**	12	485	97	0.20	3.85	1.36
Tooele**	6	194	194	1.00	1.54	2.73
Utah**	14	505	369	0.73	4.01	5.18
Wasatch**	8	272	155	0.57	2.16	2.18
REGIONAL TOTALS	44	1,652	1,146	0.69	13.16	16.08
SOUTHERN REGION						
Beaver	8	291	330	1.13	2.31	4.63
Garfield	10	427	155	0.36	3.39	2.18
Iron	12	524	155	0.30	4.16	2.18
Kane **	1	38	38	1.00	0.31	0.55
Millard**	10	233	369	1.58	1.85	5.18
Plute	7	136	19	0.14	1.08	0.27
Sevier	11	505	19	0.04	4.01	0.27
Washington**	0	0	0	0.00	0.00	0.00
Wayne	20	563	427	0.76	4.47	6.00
REGIONAL TOTALS	79	2,721	1,516	0.56	21.57	21.26
NORTHEASTERN REGION						
Daggett	10	330	311	0.94	2.62	4.36
Duchesne	5	155	116	0.75	1.23	1.64
Uintah	45	1,866	1,593	0.85	14.79	22.35
REGIONAL TOTALS	60	2,352	2,021	0.86	18.64	28.34
SOUTHEASTERN REGION						
Carbon**	3	136	233	1.71	1.08	3.27
Emery**	1	38	0	0.00	0.31	0.00
Grand**	1	194	116	0.60	1.54	1.64
San Juan**	2	252	0	0.00	2.00	0.00
REGIONAL TOTALS	7	622	349	0.56	4.93	4.91
Unknown	6	213	213	1.00	1.69	3.00
STATE TOTALS	347	12,615	7,133	0.57	100.00	100.00

* Total hunter-trips from questionnaire returns.

**Closed to sage grouse hunting in 1995.

Table 7. Summary of sage grouse bagged per hunter-day by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	0.78	0.94	0.92	0.55	0.96	0.79	0.79	0.40
Cache	0.47*	0.45*	0.58	0.32*	0.55*	0.21*	0.50*	0.27*
Davis	0.00*	0.72*	0.25*	0.18*	0.60*	0.08*	0.00*	0.59*
Morgan	0.36*	0.50*	0.33*	0.93*	0.71*	0.00*	0.19*	0.00*
Rich	0.81	0.63	0.85	1.01	0.82	0.79	0.53	0.47
Summit	0.57*	0.71*	0.77*	0.67*	1.38*	0.56*	0.44*	0.13*
Weber	0.64*	0.27*	0.43*	0.34*	0.55*	0.50*	0.08*	0.15*
REGIONAL TOTALS	0.66	0.69	0.75	0.66	0.80	0.59	0.54	0.37
Central Region								
Juab	0.88*	0.22*	0.20*	0.54*	0.17*	0.22*	2.71*	1.89*
Salt Lake	0.50*	0.30*	0.00*	0.70*	0.00*	0.20*	0.00*	0.00*
Sanpete	0.23*	0.61*	1.00*	0.44*	0.22*	0.33*	0.45*	0.20*
Tooele	0.27	0.41*	1.15*	0.35*	0.65*	1.07*	1.83*	1.00*
Utah	0.42	0.33	0.39	0.86*	0.96*	0.27*	0.56*	0.73*
Wasatch	0.48*	1.50*	0.55*	0.47*	0.70*	0.46*	0.80*	0.57*
REGIONAL TOTALS	0.36	0.42	0.52	0.53	0.68	0.59	1.16	0.69
Southern Region								
Beaver	0.76	0.42	0.38	0.29	0.83	1.00	0.47	1.13
Garfield	1.17	1.14	0.74	0.52	0.96	0.90	1.11	0.36
Iron	0.61	0.62	0.58	0.93	0.64	0.53	1.29	0.30
Kane	1.00	0.75	0.54	0.67	0.71	0.00	1.25	1.00*
Millard	0.00*	0.09*	3.14*	1.27*	0.80*	4.00*	0.67*	1.58*
Piute	0.95	1.87	0.50	1.00	1.71	1.13	0.78	0.14
Sevier	0.67	0.39	1.08	0.39	0.49	0.36	0.54	0.04
Washington	0.00*	0.00*	1.63*	2.00*	1.00*	0.00*	0.00*	0.00*
Wayne	1.30	1.05	1.04	1.03	0.92	0.66	0.79	0.76
REGIONAL TOTALS	0.91	0.86	0.92	0.78	0.79	0.70	0.81	0.56
Northeastern Region								
Daggett	1.20	0.33*	0.73	0.48	0.60	0.67	0.25	0.94
Duchesne	1.00	1.14	1.19	0.67	0.36	1.29	0.00	0.75
Uintah	1.12	0.98	0.87	0.71	0.87	0.73	0.83	0.85
REGIONAL TOTALS	1.11	0.93	0.89	0.68	0.76	0.79	0.72	0.86
Southeastern Region								
Carbon	1.04	0.44	0.29	0.50	0.64	0.36	0.00*	1.71*
Emery	0.77	0.95	0.20*	0.88*	0.60*	1.00*	0.80*	0.00*
Grand	0.00	1.50	1.11	0.00	1.33	4.00	1.00*	0.60*
San Juan	10.00	0.00*	0.00*	0.57*	0.00*	0.00*	0.00*	0.00*
REGIONAL TOTALS	1.40	0.63	0.47	0.59	0.77	0.71	0.50	0.56
Unknown counties	1.63	0.00	0.00	0.00	0.00	0.47	0.00	1.00
STATE TOTALS	0.76	0.71	0.78	0.67	0.77	0.64	0.68	0.57

*Closed season.

() Percent of bag per hunter-day in closed areas.

Table 8. Percentage distribution of sage grouse harvest by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	16.47	22.39	17.21	12.34	15.50	11.22	20.10	9.81
Cache	4.77*	2.72*	5.22	2.64*	5.12*	2.45*	3.23*	3.00*
Davis	0.00*	2.72*	0.26*	0.28*	1.75*	0.20*	0.00*	3.54*
Morgan	1.36*	1.06*	0.78*	1.80*	1.75*	0.00*	0.74*	0.00*
Rich	12.04	11.65*	14.99	24.55	15.79	18.57	13.15	8.99
Summit	1.81*	0.76*	1.30*	2.22*	1.61*	4.08*	1.99*	0.27*
Weber	2.61*	2.12*	2.48*	2.91*	1.75*	2.24*	0.50*	0.82*
REGIONAL TOTALS	39.09	43.42	42.24	46.74	43.27	38.78	39.70	26.43
Central Region								
Juab	0.79*	0.30*	0.39*	0.97*	0.15*	0.41*	4.71*	4.63*
Salt Lake	0.11*	0.45*	0.00*	0.97*	0.00*	0.20*	0.00*	0.00*
Sanpete	1.25*	2.57*	1.17*	0.97*	0.73*	0.61*	1.24*	1.36*
Tooele	1.81	2.27	1.96*	0.97*	1.90*	5.92*	5.46*	2.73*
Utah	2.15	3.18	2.09	1.66*	7.75*	0.61*	2.23*	5.18*
Wasatch	1.81*	0.91	0.78*	1.25*	1.02*	1.22*	0.99*	2.18*
REGIONAL TOTALS	7.95	9.68*	6.39	6.80	11.55	8.98	14.64	16.08
Southern Region								
Beaver	1.81	0.76	0.65	0.28	2.19	2.24	2.23	4.63
Garfield	3.86	8.62	7.17	2.36	3.51	3.88	5.21	2.18
Iron	1.59	2.42	1.43	1.94	3.65	4.29	5.46	2.18
Kane	0.11	0.45	0.91	0.28	0.73	0.00	1.24	0.55*
Millard	0.00*	0.15*	2.87*	2.64*	0.58*	4.08*	1.99*	5.18*
Piute	2.04	4.24	0.65	2.77	1.75	1.84	3.47	0.27
Sevier	5.00	1.97	6.78	3.05	2.92	4.08	3.23	0.27
Washington	0.00*	0.00*	1.69*	0.55*	0.29*	0.00*	0.00*	0.00*
Wayne	8.40	6.51	6.39	10.13	7.02	6.33	4.71	6.00
REGIONAL TOTALS	22.84	25.11	28.55	24.00	22.66	26.74	27.54	21.26
Northeastern Region								
Daggett	2.04	0.76*	3.78	1.39	1.32	1.63	0.50	4.36
Duchesne	2.61	3.63	4.82	2.77	1.46	3.67	0.00	1.64
Uintah	17.61	12.41	11.80	14.98	16.37	13.67	14.64	22.35
REGIONAL TOTALS	22.27	16.79	20.47	19.14	19.15	18.98	15.14	28.34
Southeastern Region								
Carbon	2.95	1.66	0.91	1.80	1.32	0.82	0.00*	3.27*
Emery	1.13	2.87	0.13*	0.97*	0.88*	0.41*	1.99*	0.00*
Grand	0.00	0.45	1.30	0.00	1.17	0.82	0.99*	1.64*
San Juan	2.27	0.00*	0.00*	0.55*	0.00*	0.00*	0.00*	0.00*
REGIONAL TOTALS	6.36	4.99	2.35	3.33	3.36	2.04	2.98	4.91
Unknown counties	1.47	0.00	0.00	0.00	0.00	4.49	0.00	3.00
Closed areas	(14.51)	(14.52)	(13.81)	(21.36)	(25.28)	(22.43)	(26.07)	(34.35)
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

*Closed season

() Percent of total harvest in closed areas.

Table 9. Percentage distribution of sage grouse hunting pressure by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	15.99	16.81	14.71	15.16	12.39	9.19	17.40	14.02
Cache	7.65*	4.28*	7.05	5.61*	7.21*	7.35*	4.39*	6.32*
Davis	1.63*	2.68*	0.82*	1.03*	2.25*	1.71*	1.01*	3.39*
Morgan	2.83*	1.50*	1.84*	1.31*	1.91*	1.18*	2.70*	1.23*
Rich	11.26	13.17	13.89	16.46	14.75	15.09	16.89	10.79
Summit	2.40*	0.75*	1.33*	2.25*	0.90*	4.72*	3.04*	1.23*
Weber	3.09*	5.57	4.49*	5.80*	2.48*	2.89*	4.39*	3.08*
REGIONAL TOTALS	44.88	44.75	44.13	47.62	41.89	42.13	49.83	40.06
Central Region								
Juab	0.68*	0.96*	1.53*	1.22*	0.68*	1.18*	1.18*	1.39*
Salt Lake	0.17*	1.07*	0.51*	0.94*	0.34*	0.66*	0.00*	0.15*
Sanpete	4.12*	3.00*	0.92*	1.50*	2.59*	1.18*	1.86*	3.85*
Tooele	5.07	3.96	1.33*	1.87*	2.25*	3.54*	2.03*	1.54*
Utah	3.86	6.85	4.19	1.31*	6.19*	1.44*	2.70*	4.01*
Wasatch	2.83*	0.43*	1.12*	1.78*	1.13*	1.71*	0.84*	2.16*
REGIONAL TOTALS	16.76	16.27	9.60	8.61	13.18	9.71	8.62	13.10
Southern Region								
Beaver	1.80	1.28	1.33	0.65	2.03	1.44	3.21	2.31
Garfield	2.49	5.35	7.56	3.09	2.82	2.76	3.21	3.39
Iron	1.97	2.78	1.94	1.40	4.39	5.25	2.87	4.16
Kane	0.08	0.43	1.33	0.28	0.79	0.00	0.68	0.31*
Millard	0.00*	1.18*	0.72*	1.40*	0.56*	0.66*	2.03*	1.85*
Piute	1.63	1.61	1.02	1.87	0.79	1.05	3.04	1.08
Sevier	5.67	3.53	4.90	5.33	4.62	7.35	4.05	4.01
Washington	0.42*	0.00*	0.82*	0.19*	0.23*	0.00*	0.00*	0.00*
Wayne	4.90	4.39	4.80	6.64	5.86	6.17	4.05	4.47
REGIONAL TOTALS	18.99	20.56	24.41	20.86	22.07	24.67	23.14	21.57
Northeastern Region								
Daggett	1.28	1.61*	4.09	1.96	1.69	1.57	1.35	2.62
Duchesne	1.97	2.25	3.17	2.81	3.15	1.84	1.01	1.23
Uintah	11.95	8.99	10.73	14.31	14.53	12.07	1.99	14.79
REGIONAL TOTALS	15.21	12.85	17.98	19.08	19.37	15.49	14.36	18.64
Southeastern Region								
Carbon	2.14	2.68	2.45	2.43	1.58	1.44	1.69	1.08*
Emery	1.11	2.14	0.51*	0.75*	1.13*	0.26*	1.69*	0.31*
Grand	0.00	0.21	0.92	0.00	0.68	0.13	0.68	1.54*
San Juan	0.17	0.54*	0.00*	0.65*	0.00*	0.00*	0.00*	2.00*
REGIONAL TOTALS	3.43	5.57	3.88	3.84	3.38	1.84	4.05	4.93
Unknown counties	0.68	0.00	0.00	0.00	0.11	6.17	0.00	1.69
Closed areas	(25.82)	(23.57)	(15.94)	(26.29)	(29.85)	(28.48)	(25.16)	(35.44)
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

*Closed season

() Percent of total pressure in closed areas.

Table 10. Statewide summary of sage grouse harvest statistics, 1951-95.

Year	Total Hunters*	Total Harvest*	Hunter-Days Afield	Sage Grouse Per Hunter-Da	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	21,509	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
1983	9,201	14,949	18,467	0.81	1.63
1984	8,283	10,921	15,266	0.72	1.32
1985	7,586	11,466	14,702	0.78	1.51
1986	7,233	11,766	13,992	0.84	1.63
1987	7,060	12,673	14,242	0.89	1.80
1988	8,499	14,692	19,418	0.76	1.73
1989	9,002	13,710	19,373	0.71	1.52
1990	9,014	15,784	20,147	0.78	1.75
1991	8,018	12,542	18,596	0.67	1.56
1992	7,393	12,156	15,781	0.77	1.64
1993	6,594	9,311	14,480	0.64	1.41
1994	5,133	7,084	10,406	0.68	1.38
1995	5,987	7,133	12,615	0.57	1.19
Totals					
(1951-95)	330,291	486,831	590,908	--	--
Average					
(1951-94)	7,371	10,902	13,143	0.61	1.82

* 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, 1995.

Region and County	All Hunts				Complete Hunts				Birds/ Hunter
	Total Parties	Total Hunters	Total Hours	Total Birds	Complete Hunts	Total Hunters	Total Hours	Total Birds	
Northern Region									
Box Elder	54	129	328	75	54	129	328	75	0.58
Cache	--	--	--	23	--	--	--	23	--
Davis	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--
Rich	173	87	166	29	173	87	166	29	0.33
Summit	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	227	216	494	104	227	216	494	104	0.48
Central Region									
Juab	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--
Southern Region									
Beaver	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--
Wayne	--	57	397	24	--	57	379	24	0.42
REGIONAL TOTALS	--	57	397	24	--	57	379	24	0.42
Northeastern Region									
Daggett	6	16	44	0	6	16	44	0	0.00
Duchesne	--	--	--	--	--	--	--	--	--
Uintah	9	18	62	17	9	18	62	17	0.94
REGIONAL TOTALS	16	34	106	17	15	34	106	17	0.50
Southeastern Region									
Carbon	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--
STATE TOTALS	242	307	997	145	242	307	979	145	0.47

Table 12. Sage grouse hunter success trend as determined by field bag check, 1990-96.

Region and County	1990		1991		1992		1993		1994		1995	
	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter
Northern Region												
Box Elder	25	1.77	11	0.83	19	1.43	18	0.99	21	0.98	23	0.58
Cache	--	--	100	2.00	--	--	--	--	--	--	--	--
Davis	--	--	--	0.00	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	13	0.67	9	0.37	9	0.52	3	0.28	8	0.51	17	0.33
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	20	1.24	10	0.62	15	0.99	10	0.73	15	0.80	21	0.48
Central Region												
Juab	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	--	--	--	--	--	--
Southern Region												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	23	0.81	21	1.02	7	0.44	7	0.43	7	0.30	6	0.42
REGIONAL TOTAL	23	0.81	21	1.02	7	0.44	7	0.43	7	0.30	6	0.42
Northeastern Region												
Daggett	17	0.67	35	1.04	--	--	--	--	--	--	0	0.00
Duchesne	50	1.00	13	0.50	--	--	--	--	--	--	--	--
Uintah	27	0.86	40	1.11	26	0.81	50	0.50	23	0.78	27	0.94
REGIONAL TOTAL	26	0.83	34	1.01	26	0.81	50	0.50	23	0.78	16	0.50
Southeastern Region												
Carbon	13	0.67	--	--	36	1.43	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	30	2.40	17	0.43	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	13	0.67	--	--	32	1.83	17	0.43	--	--	--	--
STATE TOTALS	47	1.83	14	0.75	14	0.88	10	0.66	14	0.70	15	0.47

Table 13. Sex and age composition of harvested sage grouse, 1995.

Region and County	Adults			Yearlings			Immatures			Sample Size	Young/ 100 Hens	Young/ 100 Adults
	M	F	Total	M	F	Total	M	F	Total			
Northern Region												
Box Elder	5	8	13	17	7	24	10	15	25	62	167	68
Cache	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	22	58	80	10	28	38	85	107	192	310	235	163
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	27	66	93	27	35	62	95	122	217	372	215	140
Central Region												
Juab	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--
Southern Region												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	2	0	2	22	32	54	26	19	45	101	141	80
REGIONAL TOTALS	2	0	2	22	32	54	26	19	45	101	141	80
Northeastern Region												
Daggett	--	--	--	--	--	--	--	--	--	--	--	--
Duchesne	--	--	--	--	--	--	--	--	--	--	--	--
Uintah	11	27	38	--	--	--	25	9	34	72	126	89
REGIONAL TOTALS	11	27	38	0	0	0	25	9	34	72	126	89
Southeastern Region												
Carbon	--	--	--	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--
STATE TOTALS	40	93	133	49	67	116	146	150	296	545	185	119

Table 14. Sex and age composition of harvested sage grouse from 1992-95.

Region and County	1992						1993						1994						1995						Average 1992-94					
	Sex Ratio %			Young/100H			Sex Ratio %			Young/100H			Sex Ratio %			Young/100H			Sex Ratio %			Young/100H			Sex Ratio %			Young/100H		
	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	237	47	53	174	39	61	150	100	183	45	55	292	135	62	52	48	167	68												
Cache	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Davis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Morgan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Rich	238	34	66	129	195	-	235	178	310	38	62	235	163	310	38	62	235	163												
Summit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Weber	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
REGIONAL TOTALS	475	40	60	192	369	61	150	100	493	41	59	243	152	372	40	60	215	140	405	40	60	186	115							
Central Region																														
Juab	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Salt Lake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sanpete	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tooele	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wasatch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
REGIONAL TOTALS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Southern Region																														
Beaver	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Garfield	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Iron	-	-	-	59	29	71	189	157	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Kane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Millard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Plute	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Savier	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Washington	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wayna	292	35	65	138	179	34	66	155	124	161	32	68	156	115	101	50	141	80												
REGIONAL TOTALS	292	35	65	138	238	32	88	163	131	161	32	68	156	115	101	50	141	80	210	39	61	147	105							
Northeastern Region																														
Daggett	116	57	43	233	141	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Duchesne	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Uintah	5	40	60	100	67	2	100	100	100	72	50	126	89	72	50	50	126	89												
REGIONAL TOTALS	121	58	44	226	138	2	100	100	100	72	50	126	89	72	50	50	126	89	62	28	72	163	119							
Southeastern Region																														
Carbon	42	36	64	76	11	27	73	100	83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Emery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Grand	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
San Juan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
REGIONAL TOTALS	42	36	64	76	11	27	73	100	83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
STATE TOTALS	930	41	59	169	620	35	65	155	116	654	38	62	216	141	545	43	57	185	119	27	32	68	88	73						

FOREST GROUSE

SUMMARY

FOREST
GROUSE



Brood count data for forest grouse provided small sample sizes. Efforts to collect brood count data have dwindled over the past few years. No meaningful information could be derived for ruffed grouse. Total blue grouse and blue grouse observed per 100 hours increased from 1994.

Total harvest increased from 18,862 in 1994 to 29,312 in 1995, a 55 percent increase. Total hunters and days afield also increased. Ruffed grouse comprised 45 percent of the harvest while blue grouse comprised 55 percent.

Forest grouse populations continue to rebound from the devastating winter of 1992-93.

Brood Counts

Ruffed Grouse

Results of the annual random brood survey for 1995 are shown in Table 1 of this section. Long-term trends of young per 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 1995 compared to 1994 and the previous 10-year average (1985-1994) follow:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Total ruffed grouse observed	--	--	--
Young per 100 adults	--	--	--
Mean brood size	--	--	--
Ruffed grouse observed per 100 hours	--	--	--
Total hours effort	--	--	--

No brood count data for ruffed grouse was collected in 1995.

Blue Grouse

Results of the annual random brood survey for 1995 are shown in Table 5 of this section. Long-term trends of young per adult ratios, mean brood size and blue grouse observed per 100 hours are found in Tables 6-8. Survey results for 1995 compared to 1994 and the previous 10-year average (1985-94) follow:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Total blue grouse observed	11	-89	-96
Young per 100 adults	267	+60	+12
Mean brood size	2.67	-28	-28
Blue grouse observed per 100 hours	157	-59	+10
Total hours effort (forest grouse)	7	-72	-97

The 1995 summer surveys on blue grouse indicated that production increased 60 percent from 1994 and was 12 percent above average. Efforts to collect blue grouse brood information decreased 72 percent in 1995.

Harvest

Hunter Questionnaire

Results of the 1995 blue grouse, ruffed grouse and combined hunter questionnaire are shown in Table 10, 11 and 12 respectively. 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 13-15 and total statewide harvest statistics in Table 16 and Figures 1 and 2. Forest grouse season length, bag limits and harvest statistics, 1963-1995 are listed in Table 17. Harvest statistics for 1995 compared to 1994 and the previous 10-year (1985-94) average follow:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Forest grouse hunters	10,088	+3	-30
Forest grouse harvested	29,312	+55	-16
Hunter-days afield	35,591	+29	-3
Forest grouse per hunter-day	0.82	+21	-13
Forest grouse per hunter	2.91	+52	+27
Percent ruffed grouse	44.83	+22	+16
Percent blue grouse	55.17	-12	-1
Percent unidentified	--	--	--

Ninety percent interval for overall forest grouse harvest is +/- 2,050.50. Standard deviation is 0.887394.

Total harvest increased 55 percent from 1994 and was 16 percent below average. Overall, hunter success (grouse per hunter-day) increased 21 percent in 1995, but remains 13 percent below average. The number of grouse harvested per hunter was 27 percent above average. Hunter pressure increased, but remains 30 percent below the long-term average.

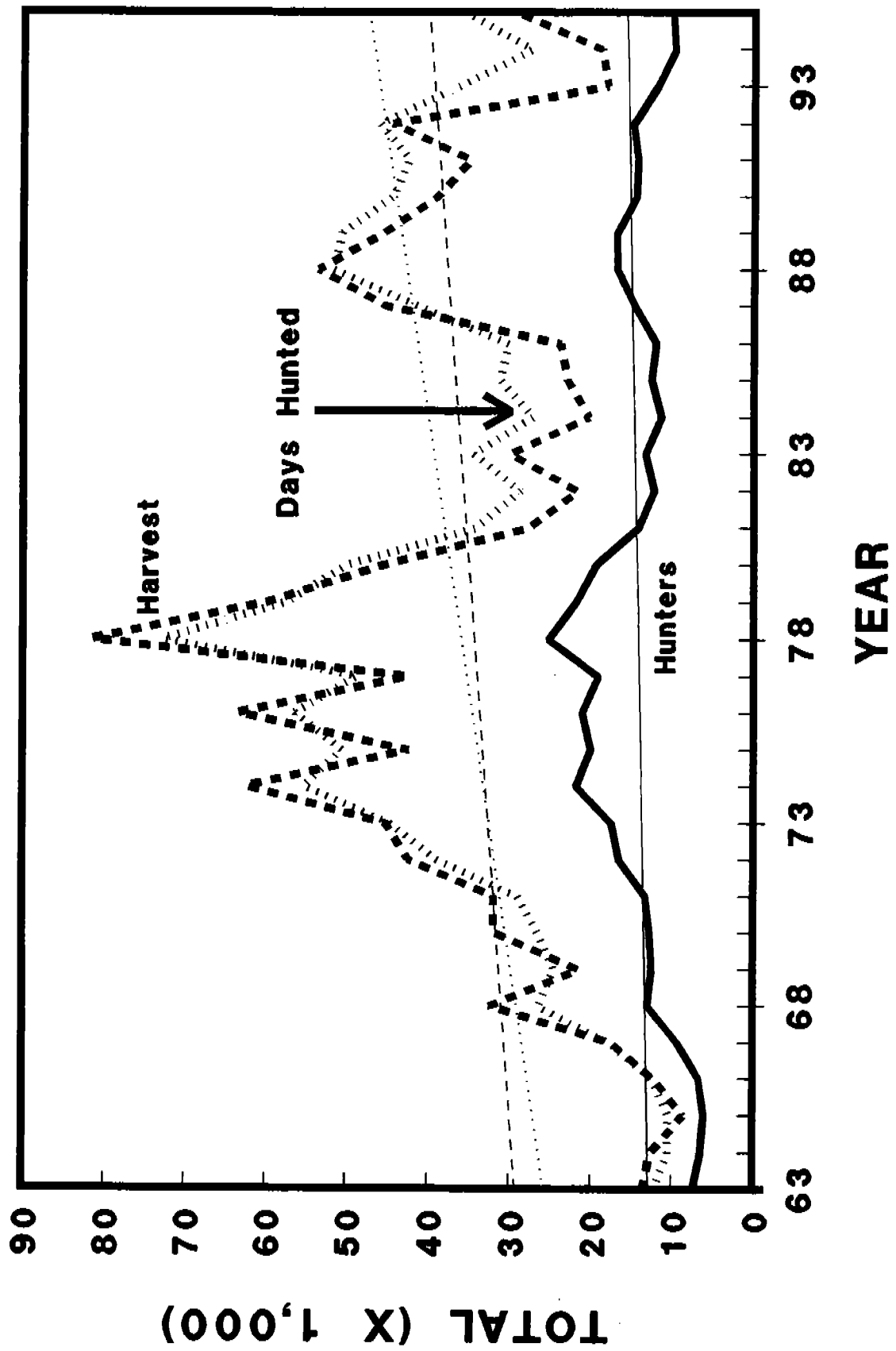


Figure 1. Statewide trends of forest grouse harvest statistics, 1963-95.

FOREST GROUSE PER HUNTER AND PER DAY

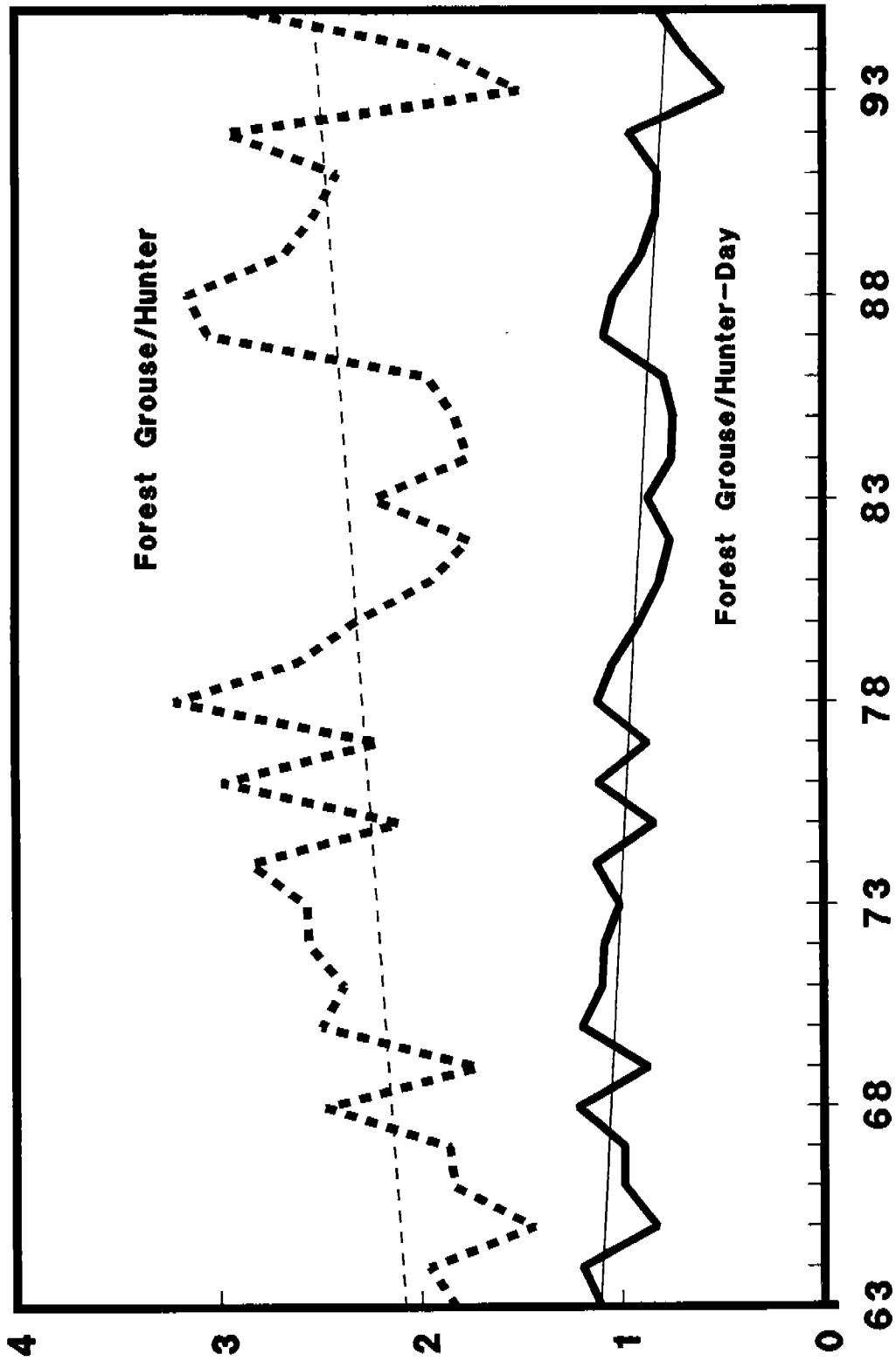


Figure 2. Statewide trends of forest grouse hunter success rates, 1963-95.

Field Bag Checks

A summary of field bag check data for 1995 is shown in Table 18. Hunter success trends determined via this method are shown in Table 19.

Results of the 1995 survey compared to 1994 and the 10-year (1985-94) average follow:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Total hunters checked	299	-5	-41
Total hours hunted	1,238	-2	-33
Forest grouse per hunter (complete hunts)	0.42	-21	-34
Forest grouse bagged per 100 hours	10	-23	-59
Average hours per hunter-day (complete hunts)	4.14	+4	+38
Hours hunted per grouse bagged (complete hunts)	9.90	+103	+133

Sex and Age Composition of the Harvest

Sex and age composition of the harvest as determined from wings is shown in Table 20 and 21.

Following are data derived from blue grouse wing surveys in 1995 compared to 1994:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Sample Size	72	-52	--
Percent Males	33	-27	--
Percent Females	66	+20	--
Young per 100 adults	300	+33	--
Young per 100 hens (adult)	540	-9	--

Following are data derived from ruffed grouse wing surveys in 1995 compared to 1994:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Sample Size	77	+64	--
Percent Males	--	--	--
Percent Females	--	--	--
Young per 100 adults	267	+25	--
Young per 100 hens (adult)	--	--	--

Table 1. Ruffed grouse summer inventory, 1995.

Region and County	Distinct Broods		Mean Brood	Mixed Young & Adults		Total Adults	Total Young	Young/100 Adult	Hours of Effort			Birds/100 Hr
	# Adults	Young		Adults	Young				Vehicle Miles	Horse	Walk	
Northern Region												
Box Elder	--	--	--	--	--	--	--	--	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--
Central Region												
Juab	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--
Southern Region												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--
Northeastern Region												
Daggett	--	--	--	--	--	--	--	--	--	--	--	--
Duchesne	--	--	--	--	--	--	--	--	--	--	--	--
Uintah	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--
Southeastern Region												
Carbon	--	--	--	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--
STATE TOTALS	0	0	ERR	0	0	0	0	ERR	0	0	0	ERR

Table 2. Trend of ruffed grouse young per 100 adults, 1986-96.

Region and County	Year													Average 1985-94
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997		
Northern Region														
Box Elder	--	433	150	50	--	300	250	400	--	--	--	--	--	
Cache	350	100	300	267	300	150	225	167	--	--	--	--	--	
Davis	--	--	136	--	--	--	--	217	--	--	--	--	--	
Morgan	--	--	--	--	--	--	--	--	--	--	--	--	--	
Rich	667	200	--	267	--	--	--	--	--	--	--	--	--	
Summit	200	400	500	300	450	400	--	--	--	--	--	--	--	
Weber	150	--	380	220	--	700	467	--	--	--	--	--	--	
REGIONAL TOTALS	308	300	337	141	300	355	277	--	--	--	--	--	290	
Central Region														
Juab	--	--	--	--	--	--	--	--	--	--	--	--	--	
Salt Lake	--	150	0	--	--	--	--	--	--	--	--	--	--	
Sanpete	8,700	--	--	--	--	300	400	--	--	--	--	--	--	
Tooele	--	--	--	--	--	--	--	--	--	--	--	--	--	
Utah	--	460	320	300	--	--	100	100	--	--	--	--	--	
Wasatch	--	--	--	--	280	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	700	322	320	300	280	300	250	100	--	--	--	--	319	
Southern Region														
Beaver	--	--	--	--	--	--	--	--	--	--	--	--	--	
Garfield	--	--	--	--	--	--	--	--	--	--	--	--	--	
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	
Kane	--	--	--	--	--	--	--	--	--	--	--	--	--	
Millard	--	--	--	--	--	--	--	--	--	--	--	--	--	
Piute	--	--	--	--	--	--	--	--	--	--	--	--	--	
Sevier	--	--	450	--	--	--	--	--	--	--	--	--	--	
Washington	--	--	--	--	--	--	--	--	--	--	--	--	--	
Wayne	--	--	--	--	333	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	--	--	450	--	333	--	--	--	--	--	--	--	392	
Northeastern Region														
Daggett	--	--	--	150	--	--	--	--	400	--	--	--	--	
Duchesne	--	--	--	400	600	--	--	--	--	--	--	--	--	
Uintah	--	400	--	267	600	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	--	400	--	250	600	--	--	--	400	--	--	--	413	
Southeastern Region														
Carbon	--	--	--	--	--	--	--	--	--	--	--	--	--	
Emery	--	300	--	--	--	--	--	--	--	--	--	--	--	
Grand	--	--	--	--	--	--	--	--	--	--	--	--	--	
San Juan	--	--	--	--	--	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	--	300	--	--	--	--	--	--	--	--	--	--	300	
STATE TOTALS	336	312	160	277	356	350	273	100	400	--	--	--	287	

Table 3. Trend of average brood size for ruffed grouse, 1985-95.

Region and County	Year											Average 1985-94
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Northern Region												
Box Elder	--	2.00	3.00	3.00	--	3.00	5.00	4.00	--	--	--	--
Cache	3.50	1.00	3.14	4.00	3.00	3.00	3.00	5.00	--	--	--	--
Davis	--	--	--	4.00	--	--	--	4.33	--	--	--	--
Morgan	--	--	--	--	--	--	3.33	--	--	--	--	--
Rich	6.67	3.00	--	--	3.00	--	--	--	--	--	--	--
Summit	3.33	4.00	5.00	--	3.00	4.50	4.00	--	--	--	--	--
Weber	3.00	--	4.75	3.67	--	--	7.00	4.67	--	--	--	--
REGIONAL TOTALS	4.44	2.60	3.93	3.64	3.00	3.75	4.13	4.50	--	--	--	3.75
Central Region												
Juab	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	7.00	--	--	--	--	3.00	4.00	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--
Utah	--	4.60	3.20	3.00	3.00	--	--	1.00	1.00	--	--	--
Wasatch	--	--	--	--	--	4.70	--	--	--	--	--	--
REGIONAL TOTALS	7.00	4.60	3.20	3.00	3.00	4.70	3.00	2.50	1.00	--	--	3.56
Southern Region												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	4.50	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	5.00	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	4.50	--	5.00	--	--	--	--	--	4.75
Northeastern Region												
Daggett	--	--	--	--	3.00	--	--	--	--	4.00	--	--
Duchesne	--	--	--	--	4.00	6.00	--	--	--	--	--	--
Uintah	--	--	4.00	--	4.00	6.00	--	--	--	--	--	--
REGIONAL TOTALS	--	--	4.00	--	3.75	6.00	--	--	--	4.00	--	4.44
Southeastern Region												
Carbon	--	--	--	--	--	--	--	--	--	--	--	--
Emery	--	--	3.00	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	3.00	--	--	--	--	--	--	--	--	3.00
STATE TOTALS	4.70	3.60	3.75	3.71	3.30	4.75	4.00	4.10	1.00	4.00	--	3.69

Table 4. Trend of ruffed grouse observed per 100 hours, 1986-96.

Region and County	Year													Average 1985-94
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997		
Northern Region														
Box Elder	--	80	31	100	--	64	29	45	--	--	--	--	--	
Cache	17	20	58	17	46	5	76	40	--	--	--	--	--	
Davis	--	--	--	114	--	--	--	76	--	--	--	--	--	
Morgan	2	--	--	--	--	--	50	--	--	--	--	--	--	
Rich	1,150	53	--	50	--	--	--	--	--	--	--	--	--	
Summit	52	36	900	--	9	40	20	--	--	--	--	--	--	
Weber	21	--	287	178	--	--	26	170	--	--	--	--	--	
REGIONAL TOTALS	26	30	56	62	22	13	32	47	--	--	--	--	36	
Central Region														
Juab	--	--	--	--	--	--	--	--	--	--	--	--	--	
Salt Lake	--	167	--	--	--	--	--	--	--	--	--	--	--	
Sanpete	160	--	--	--	--	12	38	--	--	--	--	--	--	
Tooele	--	--	--	--	--	--	--	--	--	--	--	--	--	
Utah	--	400	50	133	133	--	13	14	--	--	--	--	--	
Wasatch	--	--	25	--	46	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	14	88	30	133	133	28	6	13	7	--	--	--	50	
Southern Region														
Beaver	--	--	--	--	--	--	--	--	--	--	--	--	--	
Garfield	--	--	--	--	--	--	--	--	--	--	--	--	--	
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	
Kane	--	--	--	--	--	--	--	--	--	--	--	--	--	
Millard	--	--	--	--	--	--	--	--	--	--	--	--	--	
Piute	--	--	--	--	--	--	--	--	--	--	--	--	--	
Sevier	--	--	--	138	--	--	--	--	--	--	--	--	--	
Washington	--	--	--	--	--	--	--	--	--	--	--	--	--	
Wayne	--	--	--	--	--	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	--	--	--	138	--	433	--	--	--	--	--	--	286	
Northeastern Region														
Daggett	--	--	--	109	--	--	--	--	--	50	--	--	--	
Duchesne	--	4	--	33	175	--	--	--	--	--	--	--	--	
Uintah	--	68	--	28	180	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	--	28	--	28	105	--	--	--	--	50	--	--	53	
Southeastern Region														
Carbon	--	--	--	--	--	--	--	--	--	--	--	--	--	
Emery	--	400	--	--	--	--	--	--	--	--	--	--	--	
Grand	--	--	--	--	--	--	--	--	--	--	--	--	--	
San Juan	--	--	--	--	--	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	--	400	--	--	--	--	--	--	--	--	--	--	400	
STATE TOTALS	22	47	45	46	26	30	23	31	2	31	--	--	30	

Table 5. Blue grouse summer inventory, 1995.

Region and County	Distinct Broods		Mean Brood	Mixed Young & Adults		Total Young	Total Adults	Total Young w/ Adults	Hours of Effort			Birds/ 100 Hr
	# Adults	Young		Adults	Young				Young/ 100	Vehicle Miles	Horse	
Northern Region												
Box Elder	--	--	--	--	--	--	--	--	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS												
Central Region												
Juab	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS												
Southern Region												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS												
Northeastern Region												
Daggett	1	1	1.00	0	0	1	1	100	10	1	--	1
Duchesne	--	--	--	--	--	--	--	--	--	--	--	--
Uintah	2	2	3.50	0	0	2	7	350	15	1	2	3
REGIONAL TOTALS												
Southeastern Region												
Carbon	3	3	2.67	0	0	3	8	267	25	2	2	3
Emery	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS												
STATE TOTALS												
	3	3	2.67	0	0	3	8	267	25	2	2	3
												7
												157

Table 6. Trend of blue grouse young per 100 adults, 1985-95.

Region and County	Year													Average 1985-94
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1985-94		
Northern Region														
Box Elder	--	100	--	--	700	144	400	200	--	173	--	--	--	
Cache	167	--	300	363	257	300	600	80	--	--	--	--	--	
Davis	183	150	222	248	200	480	260	180	--	--	--	--	--	
Morgan	900	--	433	--	--	--	--	--	--	--	--	--	--	
Rich	--	350	--	--	--	--	600	400	--	--	--	--	--	
Summit	450	--	500	--	200	178	155	--	--	--	--	--	--	
Weber	400	--	380	400	--	--	186	100	--	--	--	--	--	
REGIONAL TOTALS	269	222	300	279	244	292	277	207	--	173	--	--	251	
Central Region														
Juab	0	180	--	--	--	700	--	--	--	140	--	--	--	
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--	--	
Sanpete	--	--	600	--	80	--	--	--	--	--	--	--	--	
Tooele	168	167	218	650	650	276	231	300	--	40	--	--	--	
Utah	175	--	256	267	267	286	170	--	--	75	--	--	--	
Wasatch	--	--	--	--	--	--	--	100	100	--	--	--	--	
REGIONAL TOTALS	157	169	273	486	317	286	194	80	60	75	--	--	210	
Southern Region														
Beaver	200	267	133	109	--	--	--	--	--	--	--	--	--	
Garfield	200	245	160	--	23	--	--	--	--	--	--	--	--	
Iron	--	--	300	--	--	--	--	--	--	--	--	--	--	
Kane	255	500	475	250	--	--	--	--	--	--	--	--	--	
Millard	300	200	425	60	--	--	--	--	--	--	--	--	--	
Piute	300	300	--	--	--	--	--	--	--	--	--	--	--	
Sevier	417	--	150	90	--	--	--	--	--	--	--	--	--	
Washington	--	233	533	--	--	--	--	--	--	--	--	--	--	
Wayne	600	--	350	375	--	--	246	--	--	--	--	--	--	
REGIONAL TOTALS	282	279	230	118	23	--	246	--	--	--	--	--	196	
Northeastern Region														
Daggett	--	282	331	318	364	233	--	600	--	--	100	--	--	
Duchesne	--	228	129	190	--	600	--	800	200	--	--	--	--	
Uintah	--	140	500	233	138	60	--	--	600	--	350	--	--	
REGIONAL TOTALS	--	235	305	254	268	223	--	400	--	--	267	--	281	
Southeastern Region														
Carbon	150	500	--	--	--	--	--	500	--	--	--	--	--	
Emery	--	--	400	100	--	--	--	--	--	--	--	--	--	
Grand	200	250	--	227	300	--	200	286	289	200	--	--	--	
San Juan	300	--	300	213	300	--	500	233	167	--	--	--	--	
REGIONAL TOTALS	206	300	140	200	75	--	350	284	240	200	--	222	222	
STATE TOTALS	229	225	268	207	225	274	238	243	291	167	267	--	237	

Table 7. Trend of average brood size for blue grouse, 1985-95.

Region and County	Year														Average 1985-94
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995				
Northern Region															
Box Elder	--	2.00	--	--	7.00	3.20	4.00	4.00	5.00	--	3.80	--	--	--	--
Cache	3.33	--	3.67	3.63	3.60	3.70	4.50	4.00	4.00	--	--	--	--	--	--
Davis	3.67	3.00	2.83	4.00	4.50	6.50	4.33	3.00	3.00	--	--	--	--	--	--
Morgan	9.00	--	4.33	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	6.00	6.00	--	--	--	--	--	--
Summit	4.50	--	5.00	--	3.00	4.00	3.40	--	--	--	--	--	--	--	--
Weber	5.33	4.00	4.75	4.00	--	--	3.25	--	--	--	--	--	--	--	--
REGIONAL TOTALS	4.73	3.25	3.88	3.84	3.86	4.30	4.05	4.31	4.31	--	3.80	--	--	--	4.00
Central Region															
Juab	0.00	--	--	--	--	7.00	--	--	--	--	3.50	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	6.00	--	2.00	--	--	--	--	--	--	--	--	--	--
Tooele	3.38	3.20	3.43	6.00	6.00	3.13	3.60	3.00	3.00	--	2.00	--	--	--	--
Utah	3.50	--	3.45	5.00	5.00	5.00	3.22	--	--	--	3.00	--	--	--	--
Wasatch	--	--	--	--	--	--	--	1.00	3.00	--	--	--	--	--	--
REGIONAL TOTALS	3.43	3.20	3.62	4.67	4.20	4.00	3.36	2.00	3.00	3.00	3.00	--	--	--	3.45
Southern Region															
Beaver	2.00	2.67	4.00	4.00	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	4.50	3.29	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	3.50	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	1.00	4.75	4.00	--	--	--	--	--	--	--	--	--	--	--
Millard	4.00	4.00	4.25	1.50	--	3.00	--	--	--	--	--	--	--	--	--
Plute	3.00	3.00	--	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	4.16	--	4.57	2.33	--	--	--	--	--	--	--	--	--	--	--
Washington	--	3.50	5.33	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	6.00	--	3.60	3.76	--	--	4.57	--	--	--	--	--	--	--	--
REGIONAL TOTALS	3.21	3.53	4.12	2.71	--	3.00	4.57	--	--	--	--	--	--	--	3.52
Northeastern Region															
Daggett	--	3.75	4.71	3.20	3.89	3.50	--	6.00	--	--	1.00	--	--	--	--
Duchesne	--	3.25	2.50	2.50	--	6.00	--	8.00	2.00	--	--	--	--	--	--
Uintah	--	4.00	5.00	3.50	2.20	--	--	--	6.00	--	3.50	--	--	--	--
REGIONAL TOTALS	--	3.56	4.52	3.00	3.29	4.33	--	6.67	4.00	--	2.67	4.20	--	--	--
Southeastern Region															
Carbon	3.00	5.00	--	--	--	--	--	5.00	--	--	--	--	--	--	--
Emery	--	--	4.00	4.00	--	--	--	--	--	--	--	--	--	--	--
Grand	3.00	3.25	--	2.78	3.00	--	2.00	4.38	3.17	4.00	--	--	--	--	--
San Juan	3.00	--	3.00	3.00	3.00	--	5.00	3.50	2.50	--	--	--	--	--	--
REGIONAL TOTALS	3.00	3.60	3.50	2.93	3.00	--	3.50	4.13	2.90	4.00	--	3.40	--	--	3.40
STATE TOTALS	3.56	3.44	4.00	3.22	3.61	4.19	3.88	4.29	2.91	3.69	2.67	3.68	--	--	--

Table 8. Trend of blue grouse observed per 100 hours, 1985-95.

Region and County	Year														Average 1985-94
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995				
Northern Region															
Box Elder	--	20	0	--	--	200	21	136	--	750	--	--	--	--	--
Cache	77	--	71	56	114	108	165	45	--	--	--	--	--	--	--
Davis	94	50	232	300	120	426	86	112	--	--	--	--	--	--	--
Morgan	23	4	59	--	17	--	--	--	--	--	--	--	--	--	--
Rich	--	53	0	0	--	--	175	79	--	--	--	--	--	--	--
Summit	38	--	900	--	21	100	55	40	--	--	--	--	--	--	--
Weber	167	100	267	56	--	--	65	40	--	--	--	--	--	--	--
REGIONAL TOTALS	58	27	109	90	79	133	63	83	--	750	--	--	750	--	155
Central Region															
Juab	30	156	0	--	--	800	--	--	--	600	--	--	--	--	--
Salt Lake	--	--	400	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	1,400	--	14	4	--	23	25	--	--	--	--	--	--
Tooele	536	444	206	1,000	1,000	233	--	200	--	350	--	--	--	--	--
Utah	165	--	229	367	367	113	318	--	--	350	--	--	--	--	--
Wasatch	--	--	0	--	--	--	--	9	150	--	--	--	--	--	--
REGIONAL TOTALS	183	254	194	683	72	75	180	24	29	--	--	--	188	--	188
Southern Region															
Beaver	33	137	175	164	--	--	--	--	--	--	--	--	--	--	--
Garfield	122	141	195	--	--	100	--	--	--	--	--	--	--	--	--
Iron	--	--	1,200	--	--	--	--	--	--	--	--	--	--	--	--
Kane	213	267	383	127	--	--	--	--	--	--	--	--	--	--	--
Millard	133	200	525	100	--	--	--	--	--	--	--	--	--	--	--
Piute	67	266	--	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	155	--	275	738	--	--	--	--	--	--	--	--	--	--	--
Washington	--	333	950	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	700	--	450	476	--	--	2,250	--	--	--	--	--	--	--	--
REGIONAL TOTALS	140	178	309	247	--	200	2,250	--	--	--	--	--	554	--	554
Northeastern Region															
Daggett	--	300	1,255	230	265	286	--	1,400	--	--	200	--	--	--	--
Duchesne	--	61	64	121	--	175	--	225	120	--	--	--	--	--	--
Uintah	--	600	65	37	48	320	--	--	3,500	60	150	--	--	--	--
REGIONAL TOTALS	--	126	286	120	95	46	--	500	370	8	157	--	194	--	194
Southeastern Region															
Carbon	33	60	--	--	--	--	--	240	--	--	--	--	--	--	--
Emery	--	--	600	--	--	--	--	--	--	--	--	--	--	--	--
Grand	360	120	300	--	89	--	300	540	875	467	--	--	--	--	--
San Juan	63	--	400	--	400	--	600	600	457	--	--	--	--	--	--
REGIONAL TOTALS	123	96	400	--	85	--	450	480	113	467	--	277	--	277	277
STATE TOTALS	101	110	197	166	81	93	112	130	48	384	157	--	142	157	142

Table 9. Summary of effort expended on forest grouse brood counts, 1995.

Region and County	Vehicle Miles	Hours of Effort			Total
		Vehicle	Horse	Walk	
Northern Region					
Box Elder	--	--	--	--	--
Cache	--	--	--	--	--
Davis	--	--	--	--	--
Morgan	--	--	--	--	--
Rich	--	--	--	--	--
Summit	--	--	--	--	--
Weber	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--
Central Region					
Juab	--	--	--	--	--
Salt Lake	--	--	--	--	--
Sanpete	--	--	--	--	--
Tooele	--	--	--	--	--
Utah	--	--	--	--	--
Wasatch	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--
Southern Region					
Beaver	--	--	--	--	--
Garfield	--	--	--	--	--
Iron	--	--	--	--	--
Kane	--	--	--	--	--
Millard	--	--	--	--	--
Piute	--	--	--	--	--
Sevier	--	--	--	--	--
Washington	--	--	--	--	--
Wayne	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--
Northeastern Region					
Daggett	10	1	--	--	1
Duchesne	--	--	--	--	--
Uintah	15	1	2	3	6
REGIONAL TOTALS	25	2	2	3	7
Southeastern Region					
Carbon	--	--	--	--	--
Emery	--	--	--	--	--
Grand	--	--	--	--	--
San Juan	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--
STATE TOTALS	25	2	2	3	7

Table 10. Summary of blue grouse hunter success and distribution of harvest and hunting pressure by region and county, 1995.

REGION AND COUNTY	SAMPLE SIZE*	HUNTER-DAYS AFIELD	BIRDS BAGGED	BIRDS PER HUNTER-DAY	% OF PRESSURE	% OF HARVEST
NORTHERN REGION						
Box Elder	13	816	835	1.02	4.39	5.17
Cache	59	4,976	3,479	0.70	26.78	21.52
Davis	8	330	505	1.53	1.78	3.13
Morgan	2	58	97	1.67	0.31	0.60
Rich	5	194	136	0.70	1.05	0.84
Summit	19	1,477	933	0.63	7.95	5.77
Weber	20	1,555	1,749	1.13	8.37	10.82
REGIONAL TOTALS	126	9,408	7,736	0.82	50.63	47.84
CENTRAL REGION						
Juab	6	252	252	1.00	1.36	1.56
Salt Lake	6	233	136	0.58	1.26	0.84
Sanpete	15	738	505	0.68	3.97	3.13
Tooele	7	466	641	1.38	2.51	3.97
Utah	20	1,146	1,146	1.00	6.17	7.09
Wasatch	25	1,496	1,049	0.70	8.05	6.49
REGIONAL TOTALS	79	4,334	3,732	0.86	23.33	23.08
SOUTHERN REGION						
Beaver	9	330	349	1.06	1.78	2.16
Garfield	3	272	174	0.64	1.46	1.08
Iron	10	485	466	0.96	2.62	2.88
Kane	5	233	252	1.08	1.26	1.56
Millard	2	155	116	0.75	0.84	0.72
Piute	3	330	311	0.94	1.78	1.92
Sevier	14	1,166	991	0.85	6.28	6.13
Washington	3	58	97	1.67	0.31	0.60
Wayne	1	19	58	3.00	0.10	0.36
REGIONAL TOTALS	50	3,051	2,818	0.92	16.42	17.43
NORTHEASTERN REGION						
Daggett	5	349	291	0.83	1.88	1.80
Duchesne	6	174	427	2.44	0.94	2.64
Uintah	18	796	894	1.12	4.29	5.53
REGIONAL TOTALS	29	1,321	1,613	1.22	7.11	9.98
SOUTHEASTERN REGION						
Carbon	1	0	38	0.00	0.00	0.24
Emery	0	0	0	0.00	0.00	0.00
Grand	3	136	116	0.86	0.73	0.72
San Juan	3	213	77	0.36	1.15	0.48
REGIONAL TOTALS	7	349	233	0.67	1.88	1.44
Unknown	1	116	38	0.33	0.63	0.24
STATE TOTALS	292	18,583	16,172	0.87	100.00	100.00

*Total hunter trips from questionnaire returns.

Table 11. Summary of ruffed grouse hunter success and distribution of harvest and hunting pressure by region and county, 1995.

REGION AND COUNTY	SAMPLE SIZE*	HUNTER-DAYS AFIELD	BIRDS BAGGED	BIRDS PER HUNTER-DAY	% OF PRESSURE	% OF HARVEST
NORTHERN REGION						
Box Elder	12	660	641	0.97	3.89	4.88
Cache	60	4,781	2,565	0.54	28.12	19.53
Davis	9	330	311	0.94	1.94	2.37
Morgan	8	369	874	2.37	2.17	6.66
Rich	13	874	602	0.69	5.14	4.59
Summit	31	1,885	1,535	0.81	11.09	11.69
Weber	27	2,177	1,652	0.76	12.80	12.57
REGIONAL TOTALS	160	11,079	8,183	0.74	65.14	62.28
CENTRAL REGION						
Juab	4	291	116	0.40	1.71	0.89
Salt Lake	5	194	174	0.90	1.14	1.33
Sanpete	7	369	252	0.68	2.17	1.92
Tooele	5	330	155	0.47	1.94	1.18
Utah	19	1,049	602	0.57	6.17	4.59
Wasatch	19	1,302	894	0.69	7.66	6.80
REGIONAL TOTALS	59	3,537	2,196	0.62	20.80	16.72
SOUTHERN REGION						
Beaver	1	97	19	0.20	0.57	0.15
Garfield	1	19	38	2.00	0.11	0.30
Iron	3	136	97	0.71	0.80	0.74
Kane	3	136	97	0.71	0.80	0.74
Millard	1	38	38	1.00	0.23	0.30
Piute	0	0	0	0.00	0.00	0.00
Sevier	6	369	388	1.05	2.17	2.96
Washington	2	58	77	1.33	0.34	0.59
Wayne	0	0	0	0.00	0.00	0.00
REGIONAL TOTALS	17	855	758	0.89	5.03	5.77
NORTHEASTERN REGION						
Daggett	5	272	194	0.71	1.60	1.48
Duchesne	5	174	272	1.56	1.03	2.07
Uintah	14	835	1,321	1.58	4.91	10.06
REGIONAL TOTALS	24	1,282	1,788	1.39	7.54	13.61
SOUTHEASTERN REGION						
Carbon	2	97	116	1.20	0.57	0.89
Emery	2	77	19	0.25	0.46	0.15
Grand	1	58	38	0.67	0.34	0.30
San Juan	1	19	38	2.00	0.11	0.30
REGIONAL TOTALS	6	252	213	0.85	1.49	1.63
Unknown	0	0	0	0.00	0.00	0.00
STATE TOTALS	266	17,008	13,140	0.77	100.00	100.00

*Total hunter trips from questionnaire returns.

Table 12. Summary of blue and ruffed grouse hunter success and distribution of harvest and hunting pressure by region and county, 1995.

REGION AND COUNTY	SAMPLE SIZE*	HUNTER-DAYS AFIELD	BIRDS BAGGED	BIRDS PER HUNTER-DAY	% OF PRESSURE	% OF HARVEST
NORTHERN REGION						
Box Elder	36	1,516	1,399	0.92	3.84	4.84
Cache	128	8,377	5,987	0.71	21.23	20.69
Davis	37	1,282	816	0.64	3.25	2.82
Morgan	20	952	1,088	1.14	2.41	3.76
Rich	23	1,127	699	0.62	2.86	2.42
Summit	50	2,507	2,429	0.97	6.35	8.40
Weber	65	3,460	2,876	0.83	8.77	9.94
REGIONAL TOTALS	359	19,224	15,297	0.80	48.72	52.86
CENTRAL REGION						
Juab	14	524	408	0.78	1.33	1.41
Salt Lake	19	641	330	0.52	1.63	1.14
Sanpete	33	1,613	777	0.48	4.09	2.69
Tooele	22	913	874	0.96	2.32	3.02
Utah	65	2,974	1,341	0.45	7.54	4.63
Wasatch	52	2,663	1,982	0.74	6.75	6.85
REGIONAL TOTALS	205	9,330	5,714	0.61	23.65	19.75
SOUTHERN REGION						
Beaver	16	835	505	0.60	2.12	1.75
Garfield	8	485	194	0.40	1.23	0.67
Iron	19	952	738	0.78	2.41	2.55
Kane	5	233	408	1.75	0.59	1.41
Millard	8	291	174	0.60	0.74	0.60
Piute	7	388	311	0.80	0.99	1.07
Sevier	50	2,915	1,438	0.49	7.39	4.97
Washington	4	77	97	1.25	0.20	0.34
Wayne	2	116	58	0.50	0.30	0.20
REGIONAL TOTALS	119	6,298	3,926	0.62	15.96	13.57
NORTHEASTERN REGION						
Daggett	15	874	485	0.56	2.22	1.68
Duchesne	23	835	719	0.86	2.12	2.48
Uintah	38	1,671	2,177	1.30	4.24	7.52
REGIONAL TOTALS	76	3,382	3,382	1.00	8.57	11.69
SOUTHEASTERN REGION						
Carbon	4	97	155	1.60	0.25	0.54
Emery	4	116	19	0.17	0.30	0.07
Grand	7	311	155	0.50	0.79	0.54
San Juan	7	272	116	0.43	0.69	0.40
REGIONAL TOTALS	22	796	447	0.56	2.02	1.54
Unknown	9	427	174	0.41	1.08	0.60
STATE TOTALS	790	39,459	28,943	0.73	100.00	100.00

*Total hunter trips from questionnaire returns.

Table 13. Summary of forest grouse bagged per hunter-day by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	1.03	0.99	0.97	0.69	1.15	0.18	0.80	0.92
Cache	1.24	0.84	0.75	0.92	0.94	0.41	0.88	0.71
Davis	0.98	0.78	1.02	0.84	0.59	0.18	0.45	0.64
Morgan	0.99	1.23	0.94	0.94	1.06	0.16	0.66	1.14
Rich	0.92	0.42	0.52	0.62	0.76	0.34	0.59	0.62
Summit	0.86	0.89	0.49	0.72	0.77	0.40	0.82	0.97
Weber	0.99	1.00	0.73	0.51	1.01	0.51	0.51	0.83
REGIONAL TOTALS	1.07	0.88	0.74	0.76	0.92	0.37	0.72	0.80
Central Region								
Juab	0.86	0.71	0.88	0.65	0.79	0.84	0.56	0.78
Salt Lake	0.87	0.77	0.81	0.55	1.00	0.41	0.87	0.52
Sanpete	0.84	0.65	0.82	0.98	0.78	0.65	0.86	0.48
Tooele	1.33	1.75	1.03	1.03	1.19	0.37	1.02	0.96
Utah	1.08	0.99	0.91	0.97	0.84	0.77	0.59	0.45
Wasatch	0.74	0.78	0.83	0.76	1.25	0.26	0.52	0.74
REGIONAL TOTALS	0.97	0.90	0.90	0.89	0.92	0.52	0.70	0.61
Southern Region								
Beaver	1.31	0.86	0.85	0.95	1.44	1.17	0.64	0.60
Garfield	1.00	1.27	0.74	0.83	0.48	0.27	0.29	0.40
Iron	1.08	0.79	0.69	0.57	0.78	0.93	0.78	0.78
Kane	1.50	1.25	0.81	0.61	1.45	1.25	0.80	1.75
Millard	1.36	1.26	1.49	0.98	1.59	0.86	0.77	0.60
Piute	1.34	1.00	1.25	1.00	0.75	1.32	0.20	0.80
Sevier	1.18	1.23	1.02	0.94	1.30	0.49	0.71	0.49
Washington	0.10	0.00	0.00	1.83	2.00	0.00	0.60	1.25
Wayne	0.25	0.76	0.86	0.59	1.29	0.71	0.45	0.50
REGIONAL TOTALS	1.16	1.13	0.99	0.87	1.19	0.71	0.64	0.62
Northeastern Region								
Daggett	0.65	0.42	0.81	0.97	1.03	0.85	0.58	0.56
Duchesne	0.98	0.92	0.69	0.78	0.68	0.31	0.57	0.86
Uintah	0.91	0.67	1.09	1.00	1.01	0.66	0.53	1.30
REGIONAL TOTALS	0.88	0.69	0.93	0.93	0.94	0.59	0.55	1.00
Southeastern Region								
Carbon	0.48	0.37	0.47	0.64	0.83	0.73	0.78	1.60
Emery	1.06	0.60	0.81	0.78	0.88	0.18	0.48	0.17
Grand	0.81	1.14	1.12	2.14	0.52	1.12	0.00	0.50
San Juan	0.67	1.00	0.83	0.45	1.57	1.50	1.20	0.43
REGIONAL TOTALS	0.79	0.57	0.69	0.77	0.79	0.54	0.67	0.56
Unknown Counties	0.70	0.76	0.00	0.00	0.00	0.44	0.00	0.41
STATE TOTALS	1.04	0.90	0.83	0.82	0.96	0.50	0.69	0.73

Table 14. Percentage distribution of forest grouse harvest by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	3.83	5.02	6.51	5.53	4.83	1.99	6.15	4.84
Cache	21.10	15.18	15.47	17.45	17.65	12.36	19.01	20.69
Davis	3.14	1.96	3.28	2.89	2.48	0.63	1.68	2.82
Morgan	2.64	6.93	3.28	3.29	2.75	0.84	2.52	3.76
Rich	4.55	2.60	2.89	3.74	3.19	2.72	2.70	2.42
Summit	3.55	4.61	3.45	6.83	3.83	3.77	8.67	8.40
Weber	9.53	10.35	8.07	5.03	9.82	9.11	7.18	9.94
REGIONAL TOTALS	48.37	46.65	42.96	44.77	44.55	31.41	47.90	52.86
Central Region								
Juab	1.12	1.32	0.78	0.75	1.48	1.68	0.47	1.41
Salt Lake	1.40	1.50	0.72	0.80	2.12	0.94	1.86	1.14
Sanpete	4.70	4.56	5.40	4.34	3.31	4.19	5.69	2.69
Tooele	4.17	5.02	6.68	4.04	2.52	3.98	4.94	3.02
Utah	9.47	7.62	8.74	7.48	10.38	10.47	6.90	4.63
Wasatch	3.05	5.47	2.89	4.44	4.59	3.14	4.19	6.85
REGIONAL TOTALS	23.94	25.49	25.21	21.83	24.39	24.40	24.04	19.75
Southern Region								
Beaver	0.65	0.82	1.61	2.59	2.08	2.20	1.68	1.75
Garfield	0.74	1.73	1.45	1.00	0.84	1.36	0.37	0.67
Iron	1.77	1.41	1.39	1.94	1.56	7.96	1.68	2.55
Kane	0.18	0.23	0.72	0.95	1.28	1.57	0.37	1.41
Millard	1.77	3.51	2.89	2.24	3.23	3.35	2.14	0.60
Piute	2.80	0.96	3.34	2.04	0.84	3.46	0.37	1.07
Sevier	10.84	9.90	7.90	10.27	10.70	6.39	8.20	4.97
Washington	0.03	0.00	0.00	0.55	0.48	0.00	0.56	0.34
Wayne	0.09	0.73	1.00	0.65	0.72	1.78	0.47	0.20
REGIONAL TOTALS	18.92	19.92	20.31	22.23	21.72	28.06	15.84	13.57
Northeastern Region								
Daggett	0.93	0.46	1.39	1.65	1.28	1.78	2.70	1.68
Duchesne	1.55	1.60	1.39	2.24	1.20	1.36	1.58	2.48
Uintah	3.64	4.33	4.90	4.99	4.67	7.12	3.91	7.52
REGIONAL TOTALS	6.14	6.38	7.68	8.87	7.15	10.26	8.20	11.69
Southeastern Region								
Carbon	0.43	0.50	1.34	0.70	0.20	1.15	1.68	0.54
Emery	1.15	0.41	1.17	0.35	0.92	0.73	1.21	0.07
Grand	0.68	0.36	1.06	0.75	0.64	1.99	0.00	0.54
San Juan	0.12	0.18	0.28	0.50	0.44	0.31	1.12	0.40
REGIONAL TOTALS	2.40	1.46	3.84	2.29	2.20	4.19	4.01	1.54
Unknown Counties	0.21	0.73	0.00	0.00	0.00	1.68	0.00	0.60
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 15. Percentage distribution of forest grouse hunting pressure by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	3.84	4.55	5.60	6.59	4.04	5.48	5.30	3.84
Cache	17.65	16.22	17.22	15.55	18.07	14.88	14.76	21.23
Davis	3.32	2.25	2.69	2.82	4.04	1.78	2.56	3.25
Morgan	2.77	5.08	2.92	2.86	2.50	2.66	2.62	2.41
Rich	5.13	5.53	4.63	4.95	4.04	3.97	3.13	2.86
Summit	4.26	4.63	5.83	7.73	4.78	4.75	7.28	6.35
Weber	9.94	9.34	9.21	8.10	9.36	8.93	9.71	8.77
REGIONAL TOTALS	46.93	47.60	48.10	48.61	46.84	42.45	45.37	48.72
Central Region								
Juab	1.35	1.68	0.74	0.94	1.81	0.99	0.58	1.33
Salt Lake	1.67	1.76	0.74	1.19	2.04	1.15	1.47	1.63
Sanpete	5.77	6.31	5.51	3.64	4.08	3.24	4.54	4.09
Tooele	3.26	2.58	5.42	3.23	2.04	5.33	3.32	2.32
Utah	9.10	6.88	8.01	6.34	11.98	6.79	8.05	7.54
Wasatch	4.29	6.31	2.92	4.79	3.54	6.11	5.50	6.75
REGIONAL TOTALS	25.46	25.52	23.33	20.13	25.50	23.60	23.45	23.65
Southern Region								
Beaver	0.51	0.86	1.57	2.25	1.39	0.94	1.79	2.12
Garfield	0.77	1.23	1.62	0.98	1.69	2.56	0.89	1.23
Iron	1.71	1.60	1.67	2.82	1.93	4.28	1.47	2.41
Kane	0.12	0.16	0.74	1.27	0.85	0.63	0.32	0.59
Millard	1.35	2.50	1.62	1.88	1.96	1.93	1.92	0.74
Piute	2.16	0.86	2.22	1.68	1.08	1.31	1.28	0.99
Sevier	9.52	7.21	6.44	8.92	7.94	6.53	7.92	7.39
Washington	0.32	0.08	0.23	0.25	0.23	0.16	0.64	0.20
Wayne	0.38	0.86	0.97	0.90	0.54	1.25	0.70	0.30
REGIONAL TOTALS	16.88	15.36	17.08	20.95	17.60	19.58	16.93	15.96
Northeastern Region								
Daggett	1.48	0.98	1.44	1.39	1.19	1.04	3.19	2.22
Duchesne	1.64	1.56	1.67	2.37	1.69	2.19	1.92	2.12
Uintah	4.13	5.82	3.75	4.09	4.47	5.38	5.05	4.24
REGIONAL TOTALS	7.25	8.36	6.85	7.86	7.36	8.62	10.16	8.57
Southeastern Region								
Carbon	0.93	1.23	2.36	0.90	0.23	0.78	1.47	0.25
Emery	1.12	0.61	1.20	0.37	1.00	2.09	1.73	0.30
Grand	0.87	0.29	0.79	0.29	1.19	0.89	0.26	0.79
San Juan	0.19	0.16	0.28	0.90	0.27	0.10	0.64	0.69
REGIONAL TOTALS	3.12	2.29	4.63	2.45	2.70	3.86	4.09	2.02
Unknown Counties	0.32	0.86	0.00	0.00	0.00	1.88	0.00	1.08
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 16. Statewide summary of forest grouse harvest statistics, 1963-94.

Year	Total				Total Harvest				Hunter-Days				Grouse/Hunter-Day				Grouse/Hunter			
	Hunters	Ruffed	Percent	Blue	7,372	54.17	786	5.63	13,608	Afield	Total	Ruffed	Blue	Total	Ruffed	Blue	Total	Ruffed	Blue	Total
1963	7,426	5,470	40.20	7,372	54.17	786	5.63	13,608	12,313	0.44	0.66	1.11	0.74	0.99	1.83					
1964	6,487	5,364	42.19	6,685	52.68	652	6.14	12,891	10,566	0.51	0.63	1.20	0.82	1.03	1.96					
1965	6,006	3,226	37.20	4,924	56.80	620	6.00	8,669	10,504	0.31	0.47	0.83	0.54	0.82	1.44					
1966	6,683	6,966	56.54	4,659	37.81	696	5.65	12,321	12,387	0.56	0.38	0.99	1.04	0.68	1.84					
1967	9,420	8,476	48.36	6,773	38.65	2,277	12.99	17,526	17,773	0.48	0.38	0.99	0.87	0.69	1.86					
1968	13,061	17,048	52.59	12,604	38.88	2,762	8.52	32,414	26,537	0.64	0.47	1.22	1.30	0.96	2.48					
1969	12,523	9,490	44.14	10,419	48.46	1,689	7.39	21,498	24,572	0.38	0.42	0.87	0.76	0.83	1.72					
1970	12,775	15,590	48.87	13,515	42.37	2,793	8.76	31,898	26,619	0.69	0.51	1.20	1.22	1.06	2.50					
1971	13,363	16,769	49.40	13,749	43.10	2,993	7.50	31,901	29,100	0.54	0.47	1.10	1.16	1.03	2.39					
1972	16,640	20,648	48.56	19,221	45.21	2,649	6.23	42,518	38,940	0.63	0.49	1.09	1.24	1.16	2.56					
1973	17,588	7,153	15.81	36,846	81.46	1,233	2.73	45,232	44,738	0.16	0.82	1.01	0.41	2.09	2.57					
1974	21,920	24,561	39.34	32,236	51.63	5,642	9.04	62,439	55,258	0.44	0.68	1.13	1.12	1.47	2.85					
1975	20,102	15,750	37.09	23,138	54.49	3,573	8.41	42,461	50,579	0.31	0.45	0.84	0.78	1.15	2.11					
1976	21,186	23,551	37.13	35,660	56.21	4,225	6.66	63,436	56,422	0.42	0.63	1.12	1.11	1.68	2.99					
1977	19,188	15,766	37.12	23,455	55.22	3,256	7.67	42,477	48,746	0.37	0.48	0.87	0.82	1.22	2.21					
1978	25,318	30,340	37.20	46,651	57.20	4,567	5.60	81,568	72,732	0.42	0.64	1.12	1.20	1.84	3.22					
1979	21,993	23,156	38.69	33,070	55.25	3,625	6.06	59,851	57,404	0.40	0.58	1.04	1.05	1.50	2.61					
1980	19,511	15,457	33.96	27,588	60.60	2,477	5.44	45,522	49,899	0.31	0.55	0.91	0.79	1.41	2.33					
1981	14,329	8,557	30.68	17,852	64.00	1,485	5.32	27,894	34,305	0.25	0.52	0.81	0.60	1.25	1.95					
1982	12,384	7,609	34.48	12,138	55.74	2,131	9.79	21,778	28,767	0.26	0.42	0.76	0.60	0.98	1.76					
1983	13,414	11,366	37.78	16,965	56.35	1,767	5.87	30,888	34,530	0.33	0.49	0.87	0.84	1.26	2.24					
1984	11,511	6,780	33.24	12,647	62.01	969	4.75	20,396	27,244	0.25	0.46	0.75	0.59	1.10	1.77					
1985	12,646	8,701	37.67	13,416	58.09	980	4.24	23,097	31,290	0.28	0.43	0.74	0.69	1.06	1.83					
1986	12,117	8,819	36.95	14,166	59.31	894	3.75	23,869	30,312	0.29	0.47	0.79	0.73	1.17	1.97					
1987	14,831	16,811	34.88	28,068	61.92	1,447	3.19	45,326	41,428	0.38	0.68	1.09	1.07	1.89	3.06					
1988	16,947	19,100	35.66	31,656	58.91	2,906	5.43	63,662	51,726	0.37	0.61	1.04	1.13	1.86	3.16					
1989	16,987	16,323	35.88	27,794	61.10	1,370	3.01	45,487	50,631	0.32	0.55	0.90	0.96	1.64	2.68					
1990	14,591	11,010	28.29	26,115	67.10	1,797	4.62	38,922	44,452	0.26	0.69	0.83	0.76	1.79	2.63					
1991	14,421	12,073	34.60	21,310	61.07	1,514	4.34	34,897	42,517	0.35	0.50	0.82	0.84	1.48	2.42					
1992	15,000	15,017	33.73	29,146	65.47	355	0.80	44,518	46,136	0.33	0.63	0.96	1.00	1.94	2.97					
1993	12,029	6,650	36.65	11,040	60.84	467	2.52	18,147	36,390	0.18	0.30	0.50	0.65	0.92	1.51					
1994	9,827	6,908	36.62	11,865	62.90	89	0.47	18,862	27,510	0.25	0.43	0.68	0.70	1.21	1.91					
1995	10,068	13,140	44.83	16,172	65.17	0*	0.00	29,312	35,591	0.77	0.87	0.92	2.79	3.00	2.91					
Totals	472,310	431,524	--	648,795	--	63,866	--	1,144,175	1,207,918	--	--	--	--	--	--	--	--	--	--	--
(1963-95)	14,444	13,075	38.48	19,769	55.78	1,996	5.73	34,839	36,636	0.37	0.52	0.94	0.88	1.29	2.29					

*Not Calculated

Table 17. Blue and ruffed grouse harvest statistics and hunt regulations, 1963-1995.

Year	Ruffed Grouse Harvest		Blue Grouse Harvest		Total Harvest		Total Forest Grouse Harvest	Total Hunters Afield		Total Hunter Days Afield		Season Length			Aggregate Bag Limits	
	Harvest	Days	Harvest	Days	Total	Total		Afield	Total	Afield	Open	Close	Days	Daily	Possession	
																Open
1963	5,470	7,372	13,608	7,425	12,313	?	?	?	?	?	?	?	4	8		
1964	5,354	6,685	12,691	6,487	10,566	9/26	10/16	21	4	8						
1965	3,225	4,924	8,669	6,005	105,074	9/25	10/22	28	4	8						
1966	6,966	4,659	12,321	6,683	12,387	9/24	10/21	28	4	8						
1967	8,476	6,773	17,526	9,420	17,773	9/23	10/31	39	4	8						
1968	17,048	12,604	32,414	13,061	26,537	9/28	10/29	32	4	8						
1969	9,490	10,419	21,498	12,523	24,572	9/27	11/02	37	4	8						
1970	15,590	13,515	31,898	12,775	26,619	9/26	11/06	42	4	8						
1971	15,759	13,749	31,901	13,363	29,100	9/25	11/30	67	4	8						
1972	20,648	19,221	42,518	16,640	38,940	9/23	11/30	69	4	8						
1973	7,153	36,846	45,232	17,588	44,738	9/22	11/30	70	4	8						
1974	24,561	32,236	62,439	21,920	55,258	9/28	11/30	64	4	8						
1975	15,750	23,138	42,461	20,102	50,579	9/20	11/30	72	4	8						
1976	23,551	35,660	63,436	21,186	56,422	9/18	11/30	74	4	8						
1977	15,766	23,455	42,477	19,188	48,746	9/17	11/30	75	4	8						
1978	30,340	46,651	81,558	25,318	72,732	9/16	11/30	76	4	8						
1979	23,156	33,070	59,851	21,993	57,404	9/15	11/30	77	4	8						
1980	15,457	27,588	45,522	19,511	49,899	9/20	11/30	72	4	8						
1981	8,557	17,852	27,894	14,329	34,305	9/19	11/30	73	4	8						
1982	7,509	12,138	21,778	12,384	28,767	9/18	11/30	74	4	8						
1983	11,366	16,955	30,088	13,414	34,530	9/17	11/30	75	4	8						
1984	6,780	12,647	20,396	11,511	27,244	9/15	11/30	77	4	8						
1985	8,701	13,416	23,097	12,646	31,290	9/14*	11/30	78	4	8						
1986	8,819	14,156	23,869	12,117	30,312	9/13	11/30	79	4	8						
1987	15,811	28,068	45,326	14,831	41,428	9/12	11/30	80	4	8						
1988	19,100	31,556	53,562	16,947	51,726	9/11	11/30	82	4	8						
1989	16,323	27,794	45,487	16,987	50,631	9/09	11/30	82	4	8						
1990	11,010	26,115	38,922	14,591	44,452	9/08	11/30	82	4	8						
1991	12,073	21,310	34,897	14,421	42,517	9/14	11/30	77	4	8						
1992	15,017	29,146	44,518	15,000	46,136	9/12	11/30	79	4	8						
1993	6,650	11,040	18,147	12,029	36,390	9/11	11/30	82	4	8						
1994	6,908	11,865	18,862	9,827	27,510	9/10	11/30	81	4	8						
1995	13,140	16,172	29,312	10,088	35,591	9/9	11/30	82	4	8						

* Season opener changed to the second Saturday in September from the third Saturday in September.

** From 1950 to 1963 a grouse stamp was required to hunt any grouse. In 1964, the entire state was opened to hunting without a stamp.

Table 18. Forest grouse field bag check summary, 1995.

Region and County	ALL HUNTS				COMPLETE HUNTS				
	Total Parties	Total Hunters	Total Hours	Total Birds/100 Hr	Compleat Hunts	Total Hunters	Total Hours	Total Birds/ Hunter	Birds/100 Hr
Northern Region									
Box Elder	54	15	95	4	54	15	95	4	0.27
Cache	107	267	1,095	11	107	267	1,095	119	0.45
Davis	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	161	282	1,190	123	161	282	1,190	123	0.44
Central Region									
Juab	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	--	--	--
Southern Region									
Beaver	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--
Plute	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	--	--	--
Northeastern Region									
Daggett	6	16	44	2	6	16	44	2	0.13
Duchesne	--	--	--	--	--	--	--	--	--
Uintah	1	1	4	0	1	1	4	0	0.00
REGIONAL TOTAL	7	17	48	2	7	17	48	2	0.12
Southeastern Region									
Carbon	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	--	--	--
STATE TOTALS	168	299	1,238	125	168	299	1,238	125	0.42
				10				125	10

Table 19. Forest grouse hunter success trend as determined by field bag checks, 1990-95.

Region and County	1990		1991		1992		1993		1994		1995	
	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr
Northern Region												
Box Elder	2.00	300	1.43	30	--	--	--	--	--	--	0.27	4
Cache	--	--	0.23	--	0.58	--	--	--	0.59	14	0.43	8
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	0.77	--	--	--	0.59	15	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	1.33	33	0.32	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	1.60	57	0.47	55	0.70	--	--	--	0.59	14	0.42	8
Central Region												
Juab	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	1.60	47	0.22	8	--	--	--	--	--	--	--	--
Utah	0.97	31	0.41	11	0.82	18	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	1.04	33	0.36	11	0.82	18	--	--	--	--	--	--
Southern Region												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--
Northeastern Region												
Daggett	0.60	9	2.22	43	1.17	50	--	--	--	--	0.13	5
Duchesne	--	--	--	--	--	--	--	--	--	--	--	--
Uintah	1.95	60	3.33	111	1.50	100	--	--	0.25	7	0.00	0
REGIONAL TOTALS	1.34	30	2.50	55	1.25	59	--	--	0.25	7	0.12	4
Southeastern Region												
Carbon	--	--	--	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--
STATE TOTALS	1.14	33	0.50	32	0.74	87	--	--	0.53	13	0.40	8

Table 20. Sex and age composition of harvested blue grouse, 1995.

Region and County	Sample Size	Adults			Young			Young/ 100 Adult	Young/ 100 Hens
		M	F	Total	M	F	Total		
Northern Region									
Box Elder	--	--	--	--	--	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--
Summit	26	1	4	5	7	14	21	420	525
Weber	5	1	0	1	0	4	4	400	--
REGIONAL TOTALS	31	2	4	6	7	18	25	417	625
Central Region									
Juab	--	--	--	--	--	--	--	--	--
Salt Lake	6	1	2	3	0	3	3	100	150
Sanpete	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--
Utah	21	4	1	5	6	10	16	320	1,600
Wasatch	14	1	3	4	3	7	10	250	333
REGIONAL TOTALS	41	6	6	12	9	20	29	242	483
Southern Region									
Beaver	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--
Northeastern Region									
Daggett	--	--	--	--	--	--	--	--	--
Duchesne	--	--	--	--	--	--	--	--	--
Uintah	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--
Southeastern Region									
Carbon	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--
STATE TOTALS	72	8	10	18	16	38	54	300	540

Table 21. Sex and age composition of harvested ruffed grouse, 1995.

Region and County	Sample Size	Adults			Young			Young/ 100 Adult	Young/ 100 Hens
		M	F	Total	M	F	Total		
Northern Region									
Box Elder	--	--	--	--	--	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--
Summit	47	--	--	16	--	--	31	194	--
Weber	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	47	--	--	16	--	--	31	194	--
Central Region									
Juab	--	--	--	--	--	--	--	--	--
Salt Lake	9	--	--	3	--	--	6	200	--
Sanpete	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--
Utah	21	--	--	2	--	--	19	950	--
Wasatch	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	30	--	--	5	--	--	25	500	--
Southern Region									
Beaver	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--
Northeastern Region									
Daggett	--	--	--	--	--	--	--	--	--
Duchesne	--	--	--	--	--	--	--	--	--
Uintah	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--
Southeastern Region									
Carbon	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--
STATE TOTALS	77	--	--	21	--	--	56	267	--

QUAIL

SUMMARY

QUAIL

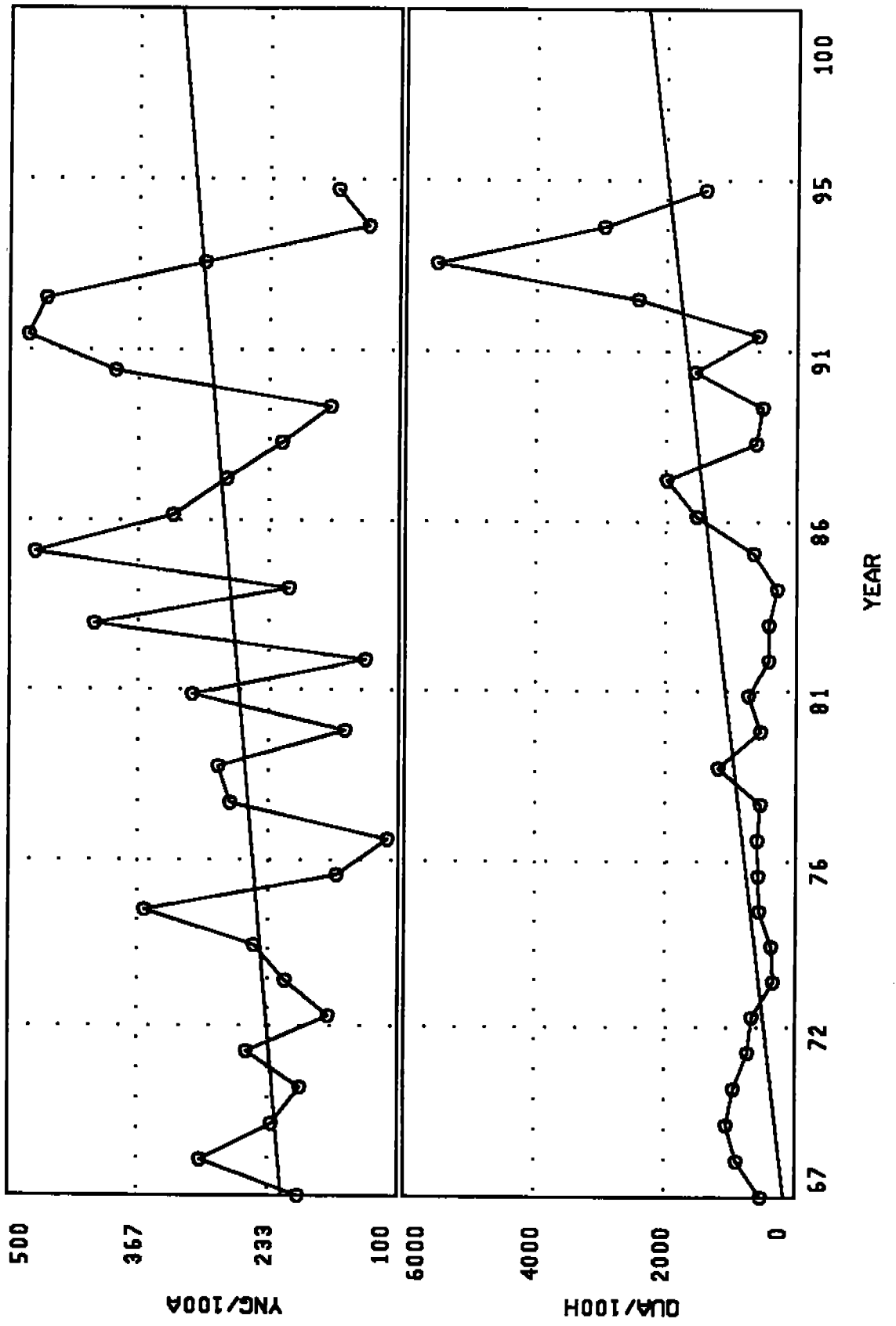


Production of California and Gambel's quail increased 23 percent from 1994. Above normal precipitation during the nesting and brood-rearing season may have contributed to increased production.

Statewide harvest statistics, when compared to 1994, showed an increase in total hunters and in total harvest. Hunter success (birds per hunter-day) increased 27 percent and remained below average statewide. Hunter-days afield increased 31 percent from 1994. The Northeastern Region accounted for 33 percent of the statewide quail harvest and 33 percent of quail hunter pressure.

California quail are found primarily in urban areas of Utah. Hunter access to these birds is limited.

FIGURE 1. QUAIL PRODUCTION INDICES, 1967-95.



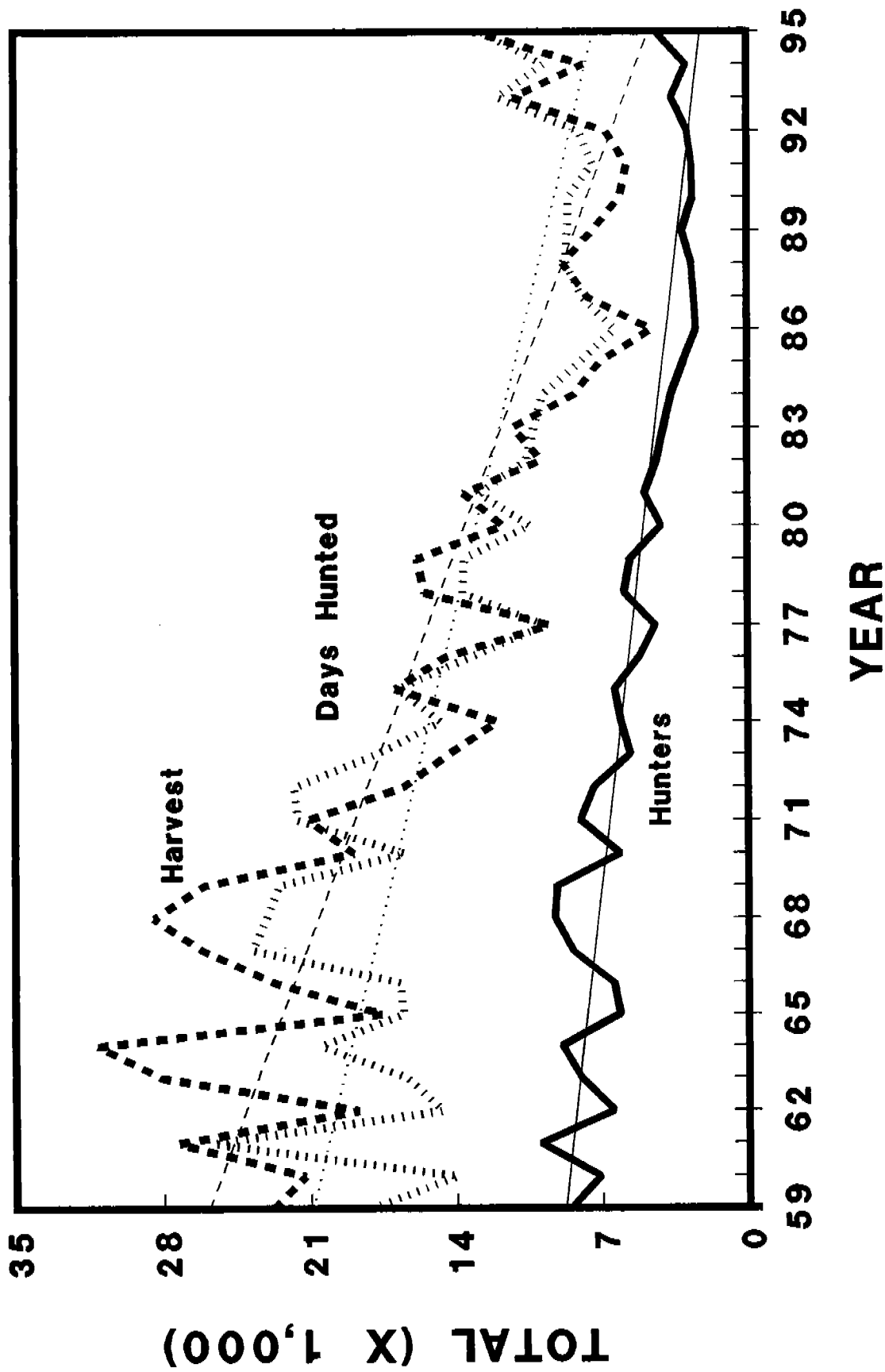


Figure 2. Statewide trends of quail harvest statistics, 1959-95.

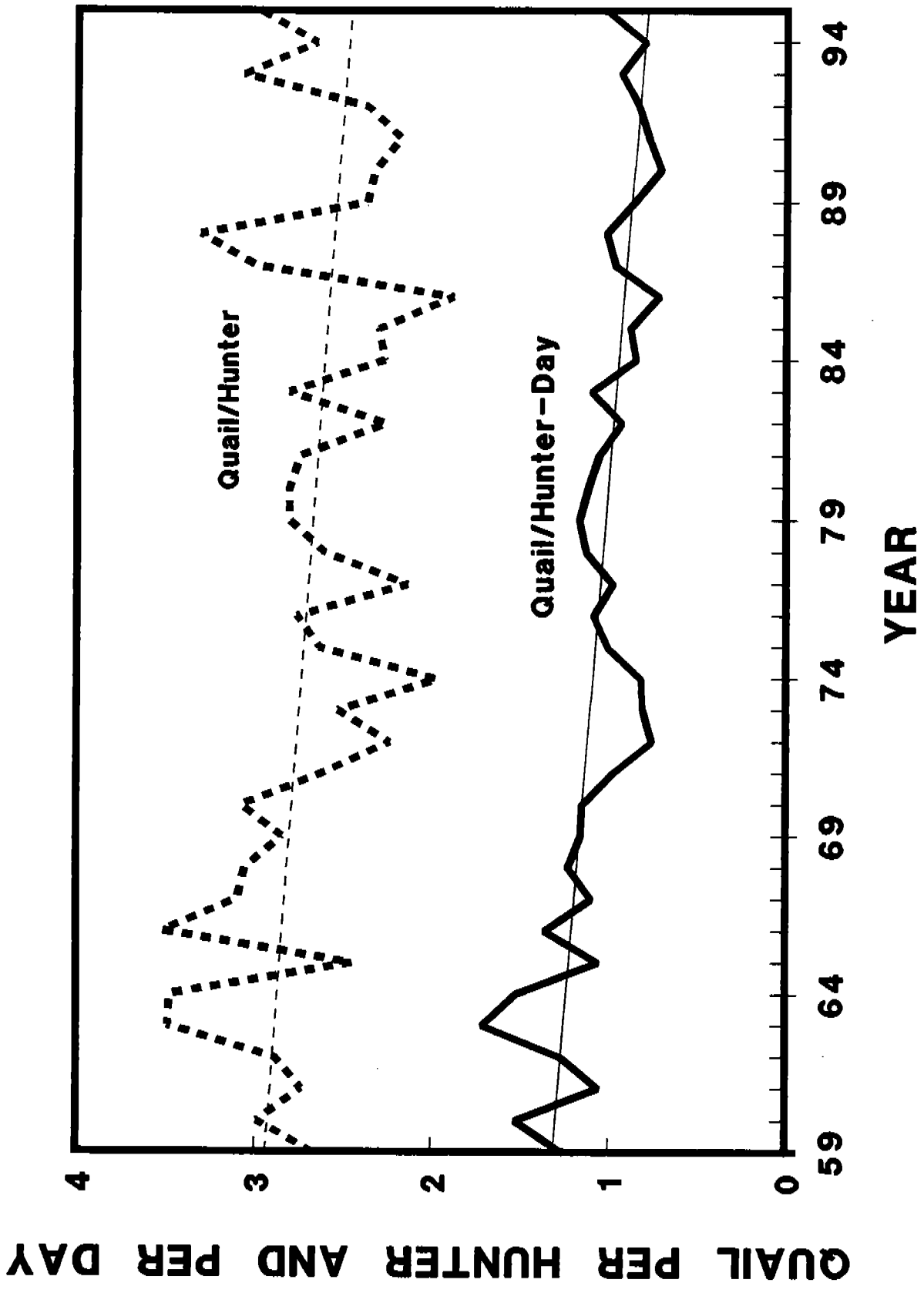


Figure 3. Statewide trends of quail hunter success rates, 1959-95.

Brood Counts

Results of the annual random brood counts for quail for 1995 are shown in Table 1 of this section. Long-term trends of young per adult ratios, mean brood size and quail observed per 100 hours are shown in Tables 2-4 and Figure 1. Gambel's quail long period waterhole count trends are shown in Table 10. Survey results for 1995 compared to 1994 and the previous 10-year (1985-94) average follow:

	<u>1995</u>	Percent change from <u>1994</u>	Percent change from <u>Average</u>
Total quail observed	126	-47	-59
Young per 100 adults	163	+23	-50
Mean brood size	6.86	+14	-6
Quail observed per 100 hours	1,400	-53	-24
Total hours effort	9	+13	-59

Brood count effort increased 1 percent in 1995. One hundred and twenty six quail were observed in 1995 which was 59 percent below average. Total hours of effort on California quail brood counts was 9 which is 59 percent below average for the last 10 years. The production index of young per 100 adults for Gambel's quail was 47 percent above what it was the previous year. Production statewide decreased to 50 percent below the long-term average.

Harvest

Results of the annual hunter questionnaire for 1995 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 1995 season to 1994 and the previous 36-year average follow:

	<u>1995</u>	Percent change from <u>1994</u>	Percent change from <u>Average</u>
Quail hunters	4,374	+49	-18
Quail harvested	13,023	+66	-10
Hunter-days afield	12,712	+31	-5
Quail per hunter-day	1.02	+27	-3
Quail per hunter	2.98	+12	+13

Ninety percent confident interval for overall quail harvest is +/- 2,743.46. Standard deviation is 2.036773.

Quail hunters increased 49 percent from 1994, but remain 18 percent below the long-term average. Quail harvest increased 66 percent from 1994.

Long-term quail harvest statistics are shown in Figures 2 and 3.

Field Bag Checks

A summary of field bag check data for 1995 is shown in Table 11. The Southeastern Region was the only region to collect data in 1995.

Table 1. Quail summer inventory, 1996.

Region and County	Distinct Broods		Mean Brood	Mixed Young & Adults		Total Adults w/ Young	Total Young	Hours of Effort			Birds/100 Hr	
	#	Adults Young		Adults Young	Young			Young/100	Vehicle Miles	Horse		Walk
Northern Region												
Box Elder	--	--	--	--	--	--	--	--	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	--	--	--	--	--	--
Central Region												
Juab	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	--	--	--	--	--	--
Southern Region												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane*	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--
Plute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--
Washington*	5	10	33	6.60	0	0	7	17	33	194	--	4
Wayne*	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	5	10	33	6.60	0	0	7	17	33	194	--	4
Northeastern Region												
Daggett	--	--	--	--	--	--	--	--	--	--	--	--
Duchesne	--	--	--	--	--	--	--	--	--	--	--	--
Uintah	2	4	16	7.50	6	30	21	31	45	145	89	5
REGIONAL TOTAL	2	4	16	7.50	6	30	21	31	45	145	89	5
Southeastern Region												
Carbon	--	--	--	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	--	--	--	--	--	--
STATE TOTALS	7	14	48	6.86	6	30	28	48	78	163	89	5

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

Table 2. Trend of quail young per 100 adults, 1985-95.

Region and County	Year										Average 1985-1994	
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994		1995
Northern Region												
Box Elder	--	--	--	--	--	--	--	--	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	1,050	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	1,400	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	1,050	224	1,400	224	656	900	900	900	294	132	194	666
Central Region												
Juab	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--
Utah	700	700	220	--	--	900	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	700	700	220	220	900	900	900	900	294	132	194	630
Southern Region												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane*	--	--	--	--	--	--	--	--	--	--	--	--
Millard	138	44	545	790	179	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--
Washington*	571	412	250	126	194	367	--	--	294	132	194	--
Wayne*	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	434	456	272	242	194	252	252	252	294	132	194	285
Northeastern Region												
Daggett	--	--	--	--	--	--	--	--	--	--	--	--
Duchesne	--	300	--	375	--	375	--	--	400	--	--	--
Uintah	--	126	420	420	667	--	370	333	--	--	145	--
REGIONAL TOTAL	--	177	420	420	667	375	370	336	336	--	145	391
Southeastern Region												
Carbon	--	--	--	--	--	--	767	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	767	--	--	--	--	767
STATE TOTALS	213	473	331	276	220	391	480	462	299	132	163	328

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

Table 3. Trend of average brood size for quail, 1985-96.

Region and County	Year											Average	
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1985-94	1985-96
Northern Region													
Box Elder	--	--	--	--	--	--	--	--	--	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	6.33	--	--	11.80	--	--	--	--	--	--	--	--
Morgan	10.50	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	14.00	--	14.00	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	10.50	14.00	11.00	5.33	11.80	--	9.00	--	--	--	--	--	10.41
Central Region													
Juab	--	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--	--
Utah	7.00	7.50	11.00	--	--	9.00	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	7.00	7.50	11.00	--	--	9.00	--	--	--	--	--	--	8.63
Southern Region													
Beaver	--	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--
Kane*	--	--	--	--	--	--	--	--	--	--	--	--	--
Millard	9.00	1.80	12.00	11.28	--	12.50	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--	--
Washington*	8.43	7.85	5.59	4.64	--	11.00	--	6.05	6.00	6.00	6.60	--	--
Wayne*	--	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	8.56	6.64	6.16	7.22	--	11.00	--	6.05	6.00	6.00	6.50	--	7.38
Northeastern Region													
Daggett	--	--	--	--	--	--	--	--	--	--	--	--	--
Duchesne	--	--	9.00	--	--	--	--	4.00	--	--	--	--	--
Uintah	--	--	8.50	4.50	6.70	--	7.40	7.00	--	--	7.50	--	--
REGIONAL TOTAL	--	--	8.15	4.50	6.70	--	7.40	6.25	--	7.50	6.60	--	6.60
Southeastern Region													
Carbon	--	--	--	--	--	--	--	7.67	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	--	7.67	--	--	--	--	7.67
STATE TOTALS	8.62	6.70	6.92	7.25	4.50	10.45	9.00	7.50	6.07	6.00	6.86	--	7.27

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

Table 4. Trend of quail observed per 100 hours, 1985-95.

Region and County	Year											Average 1985-94
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Northern Region												
Box Elder	--	--	--	--	--	--	--	--	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	1,100	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	1,500	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	1,500	1,100	--	--	--	--	--	--	--	1,300
Central Region												
Juab	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--
Utah	320	2,000	1,600	--	--	--	1,000	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	320	2,000	1,600	--	--	--	1,000	--	--	--	--	1,230
Southern Region												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane*	--	--	--	--	--	975	--	--	--	--	--	--
Millard	344	867	1,303	1,271	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--
Washington*	783	1,604	2,029	530	53	1,050	--	--	7,788	2,963	1,250	--
Wayne*	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	663	1,484	1,958	527	53	1,013	--	--	7,788	2,963	1,250	2,056
Northeastern Region												
Daggett	--	--	--	--	--	--	--	--	--	--	--	--
Duchesne	--	--	356	--	--	475	--	--	250	--	--	--
Uintah	--	--	1,800	371	767	767	475	4,700	3,033	--	1,520	--
REGIONAL TOTALS	--	--	717	371	371	767	475	4,700	1,920	--	1,520	1,492
Southeastern Region												
Carbon	--	--	--	--	--	--	--	1,300	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	1,300	--	--	--	1,300
STATE TOTALS	645	1,519	1,954	622	524	1,564	580	2,433	5,531	2,963	1,400	1,836

*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, 1995.

REGION AND COUNTY	SAMPLE SIZE*	HUNTER-DAYS AFIELD	BIRDS BAGGED	BIRDS PER HUNTER-DAY	% OF PRESSURE	% OF HARVEST
NORTHERN REGION						
Box Elder	8	272	330	1.21	2.14	2.54
Cache*	6	233	58	0.25	1.83	0.45
Davis	9	874	291	0.33	6.88	2.24
Morgan*	0	0	0	0.00	0.00	0.00
Rich*	0	0	0	0.00	0.00	0.00
Summit*	0	0	0	0.00	0.00	0.00
Weber	12	447	641	1.43	3.52	4.93
REGIONAL TOTALS	35	1,827	1,321	0.72	14.37	10.15
CENTRAL REGION						
Juab	3	38	0	0.00	0.31	0.00
Salt Lake	0	0	0	0.00	0.00	0.00
Sanpete*	2	77	0	0.00	0.61	0.00
Tooele	2	38	0	0.00	0.31	0.00
Utah	29	1,302	1,535	1.18	10.25	11.79
Wasatch*	4	311	505	1.63	2.45	3.88
REGIONAL TOTALS	40	1,768	2,041	1.15	13.92	15.67
SOUTHERN REGION						
Beaver*	0	0	0	0.00	0.00	0.00
Garfield*	0	0	0	0.00	0.00	0.00
Iron*	2	233	155	0.67	1.83	1.19
Kane	0	0	0	0.00	0.00	0.00
Millard	3	77	58	0.75	0.61	0.45
Piute	1	0	0	0.00	0.00	0.00
Sevier	6	252	38	0.15	1.99	0.30
Washington	46	3,460	3,751	1.08	27.22	28.81
Wayne*	0	0	0	0.00	0.00	0.00
REGIONAL TOTALS	58	4,023	4,004	1.00	31.65	30.75
NORTHEASTERN REGION						
Daggett	0	0	0	0.00	0.00	0.00
Duchesne	37	2,041	2,585	1.27	16.06	19.85
Uintah	40	2,215	1,671	0.75	17.43	12.84
REGIONAL TOTALS	77	4,256	4,256	1.00	33.49	32.69
SOUTHEASTERN REGION						
Carbon	4	58	213	3.67	0.46	1.64
Emery	19	622	738	1.19	4.89	5.67
Grand	2	97	272	2.80	0.76	2.09
San Juan	1	38	58	1.50	0.31	0.45
REGIONAL TOTALS	26	816	1,282	1.57	6.42	9.85
Unknown	5	19	116	6.00	0.15	0.90
STATE TOTALS	241	12,712	13,023	1.02	100.00	100.00

*Total hunter-trips from questionnaire returns.

**Closed to quail hunting in 1995.

Table 6. Summary of quail bagged per hunter-day by region and county, 1987-94.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	0.80	0.90	0.71	0.38	1.21	0.36	0.75	1.21
Cache	0.22*	0.20*	0.10*	0.00*	1.00*	0.00*	1.86*	0.25*
Davis	0.74	0.67	0.15	0.83	0.60	1.25	0.64	0.33
Morgan	1.00*	0.00*	2.00*	0.00*	0.00*	0.14*	0.00*	0.00*
Rich	1.00*	0.00*	0.00*	0.00*	0.00*	0.00*	4.00*	0.00*
Summit	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
Weber	0.35	0.21	0.50*	0.54	0.56	0.73	0.22	1.43
REGIONAL TOTALS	0.60	0.38	0.39	0.41	0.63	0.55	0.57	0.72
Central Region								
Juab	1.38	0.00	0.19	7.25	0.00	1.50	1.67	0.00
Salt Lake	1.18	0.50	0.42	2.17	1.89	0.00	1.40	0.00
Sanpete	0.80*	0.25*	0.00*	0.00*	0.00*	1.00*	1.00*	0.00*
Tooele	1.24*	3.25*	0.60*	0.29*	0.00*	0.00*	1.43*	0.00
Utah	0.46	0.84	0.75	0.61	0.54	0.48	0.63	1.18
Wasatch	1.13*	0.00	0.00*	0.00*	0.00*	0.00*	2.00*	1.63*
REGIONAL TOTALS	0.80	0.87	0.55	0.88	0.61	0.47	0.85	1.15
Southern Region								
Beaver	5.00	0.00	0.00	0.00	0.00	0.00	0.40*	0.00*
Garfield	5.00	0.00	0.00	0.00	0.00	0.00	0.00*	0.00*
Iron	0.00	1.67	0.00	0.00	0.00	1.63	1.00*	0.67*
Kane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Millard	0.00	0.90	1.06	0.08	1.50	0.58	0.73	0.75
Piute	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sevier	1.50	0.00	0.00	1.80	0.47	0.43	0.50	0.15
Washington	2.30	1.26	0.60	0.84	1.04	1.57	0.93	1.08
Wayne	2.00	0.80	0.00	0.00	0.00	0.00	5.00*	0.00*
REGIONAL TOTALS	2.08	1.19	0.66	0.71	1.01	1.25	0.90	1.00
Northeastern Region								
Daggett	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Duchesne	0.89	0.62	0.91	1.16	1.01	1.04	1.10	1.27
Uintah	0.87	0.73	0.98	0.47	0.90	0.63	0.76	0.75
REGIONAL TOTALS	0.88	0.68	0.95	0.65	0.95	0.82	0.88	1.00
Southeastern Region								
Carbon	0.38	5.00	1.11	4.50	1.12	1.33	0.00	3.67
Emery	1.11	0.50	1.86	2.11	0.97	0.92	0.57	1.19
Grand	0.80	0.00	2.00	0.00	0.00	0.00	0.00	2.80
San Juan	0.00	8.00	0.00	0.00	0.00	0.00	0.00	1.50
REGIONAL TOTALS	0.77	2.00	1.68	2.85	1.02	0.91	0.49	1.57
Unknown counties	2.00	0.00	0.00	0.00	0.00	1.50	0.00	6.00
STATE TOTALS	1.02	0.86	0.71	0.78	0.84	0.94	0.80	1.02

*Closed Season

Table 7. Percentage distribution of quail harvest by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	1.50	2.53	4.05	1.51	4.45	0.68	1.35	2.54
Cache	0.37*	0.28*	0.34*	0.00*	1.31*	0.00*	2.92*	0.45*
Davis	6.98	1.69	1.35	1.51	2.36	1.70	1.57	2.24
Morgan	0.18*	0.00*	0.68*	0.00*	0.00*	0.17*	0.00*	0.00*
Rich	0.18*	0.00*	0.00*	0.00*	0.00*	0.00*	0.90*	0.00*
Summit	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
Weber	1.32	1.97	5.41	2.11	3.67	3.74	1.80	4.93
REGIONAL TOTALS	10.56	6.46	11.83	5.12	11.78	6.28	8.54	10.15
Central Region								
Juab	4.15	0.00	1.69	8.74	0.00	0.51	1.12	0.00
Salt Lake	3.77	0.84	2.70	3.92	4.45	0.00	3.15	0.00
Sanpete	0.75*	0.56*	0.00*	0.00*	0.00*	0.17*	0.22*	0.00*
Tooele	6.79*	3.65*	1.01*	0.60*	0.00*	0.00*	2.25	0.00
Utah	9.43	21.35	16.89	17.17	12.31	8.49	10.56	11.79
Wasatch	5.09*	0.00*	0.00*	0.00	0.00*	0.00*	1.80*	3.88*
REGIONAL TOTALS	30.00	26.41	22.30	30.43	16.76	9.17	19.10	15.67
Southern Region								
Beaver	0.00	0.00	0.00	0.00	0.00	0.00	0.90*	0.00*
Garfield	2.83	0.00	0.00	0.00	0.00	0.00	0.00*	0.00*
Iron	1.88	1.40	0.00	0.00	0.00	2.21	2.70*	1.19*
Kane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Millard	0.00	5.34	5.74	0.90	6.28	4.41	4.94	0.45
Piute	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sevier	0.56	0.00	0.00	2.71	1.83	2.55	0.22	0.30
Washington	27.73	32.30	17.57	34.64	13.88	48.05	39.33	28.81
Wayne	0.75	1.12	0.00	0.00	0.00	0.00	1.12*	0.00*
REGIONAL TOTALS	33.77	40.17	23.31	38.26	21.99	57.22	49.22	30.75
Northeastern Region								
Daggett	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00
Duchesne	6.41	9.55	7.10	6.63	18.33	9.00	7.64	19.85
Uintah	11.32	2.92	13.85	8.13	18.85	6.11	9.44	12.84
REGIONAL TOTALS	17.73	22.47	20.95	15.06	37.18	15.11	17.08	32.69
Southeastern Region								
Carbon	0.56	1.40	3.38	5.42	4.97	0.68	0.00	1.64
Emery	1.88	0.84	17.57	5.72	7.33	7.98	6.07	5.67
Grand	0.75	0.00	0.68	0.00	0.00	0.00	0.00	2.09
San Juan	0.00	2.25	0.00	0.00	0.00	0.00	0.00	0.45
REGIONAL TOTALS	3.20	4.49	21.62	11.15	12.31	8.66	6.07	9.85
Unknown counties	4.71	0.00	0.00	0.00	0.00	3.57	0.00	0.90
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

*Closed Season

Table 8. Percentage distribution of quail hunting pressure by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	1.92	2.41	4.09	3.06	3.08	1.75	1.45	2.14
Cache	1.73*	1.20*	2.40*	1.41*	1.10*	1.75*	1.27*	1.83*
Davis	9.61	2.17	6.25	1.41	3.30	1.27	1.99	6.88
Morgan	0.19*	0.96*	.24*	0.00*	2.64*	1.11*	0.72*	0.00*
Rich	0.19*	0.00*	0.00*	0.00*	0.00*	0.00*	0.18*	0.00*
Summit	0.57*	0.00*	0.72*	0.71*	0.00*	0.00*	0.00*	0.00*
Weber	3.84	7.95	7.69	3.06	5.51	4.77	6.51	3.52
REGIONAL TOTALS	8.07	14.70	21.39	9.65	15.64	10.65	12.12	14.37
Central Region								
Juab	3.07	0.00	6.49	0.94	0.22	0.32	0.54	0.31
Salt Lake	3.26	1.45	4.57	1.41	1.98	0.64	1.81	0.00
Sanpete	0.96*	1.93*	0.24*	0.94*	0.00*	0.16*	0.18*	0.61*
Tooele	5.57*	0.96*	1.20	1.65*	1.54*	0.48*	1.27*	0.31
Utah	20.76	21.69	16.11	22.12	19.16	16.54	13.56	10.25
Wasatch	4.61*	0.00*	0.24*	0.00*	0.22*	0.00*	0.72*	2.45*
REGIONAL TOTALS	38.26	26.03	28.85	27.86	23.13	18.13	18.08	13.92
Southern Region								
Beaver	0.00	0.00	0.00	0.00	0.00	0.16	1.81	0.00*
Garfield	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00*
Iron	0.38	0.72	0.00	0.00	0.22	1.27	2.17	1.83*
Kane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Millard	2.50	5.06	3.85	8.47	3.52	7.15	5.43	0.61
Piute	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00
Sevier	0.38	0.00	0.00	1.18	3.30	5.56	0.36	1.99
Washington	12.30	21.93	20.91	34.24	11.23	28.62	34.18	27.22
Wayne	0.38	1.20	0.00	0.00	0.00	0.16	0.18	0.00*
REGIONAL TOTALS	16.52	28.92	25.00	41.89	18.28	42.93	44.12	31.65
Northeastern Region								
Daggett	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
Duchesne	7.30	13.25	5.53	4.47	15.20	8.11	5.61	16.06
Uintah	13.26	15.18	10.10	13.41	17.62	9.06	9.95	17.43
REGIONAL TOTALS	20.57	28.44	15.63	18.12	32.82	17.17	15.55	33.49
Southeastern Region								
Carbon	1.53	0.24	2.16	0.94	3.74	0.48	0.54	0.46
Emery	1.73	1.45	6.73	2.12	6.39	8.11	8.50	4.89
Grand	0.96	0.00	0.24	0.00	0.00	0.32	0.90	0.76
San Juan	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.31
REGIONAL TOTALS	4.22	1.93	9.13	3.06	10.13	8.90	9.95	6.42
Unknown counties	2.30	0.00	0.00	0.24	0.00	2.23	0.18	0.15
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

*Closed Season

Table 9. Statewide summary of quail harvest statistics, 1951-95.

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
1983	4,012	11,248	10,232	1.10	2.81
1984	3,654	8,303	9,805	0.85	2.27
1985	3,065	7,051	7,994	0.88	2.30
1986	2,432	4,574	6,326	0.72	1.88
1987	2,549	7,648	7,918	0.97	3.00
1988	2,671	8,849	8,682	1.02	3.31
1989	3,111	7,384	8,607	0.86	2.37
1990	2,614	6,091	8,561	0.71	2.33
1991	2,644	5,775	7,393	0.78	2.18
1992	2,861	6,788	8,068	0.84	2.37
1993	3,649	11,192	11,952	0.94	3.07
1994	2,936	7,822	9,721	0.80	2.66
1995	4,374	13,023	12,712	1.02	2.98
Totals (1951-95)	216,716	592,122	548,923	--	--
Averages (1951-94)	5,309	14,477	13,405	1.05	2.63

Table 10. Gambel's quail long period waterhole count trend on the west slope of the Beaver Dam Mountains, Washington County, 1977-95. These counts have been conducted since 1962.

Index	Year															Average						
	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1977-94	1977-94	
Total Young	--	67	253	72	37	85	114	166	47	163	348	59	35	33	208	415	465	135	33	159		
Total Adults	--	29	77	52	25	33	14	86	11	48	139	47	18	9	35	128	158	102	17	59		
Total Quail	17	86	330	124	62	118	128	252	58	211	487	106	53	42	243	543	623	237	50	207		
Young per 100 Adults	--	353	329	138	148	268	814	193	427	340	250	126	194	367	594	324	294	132	194	311		

Table 11. Quail field bag check summary, 1995.

Region and County	ALL HUNTS				COMPLETE HUNTS					
	Total Parties	Total Hunters	Total Hours	Total Birds	Compleat Hunts	Total Hunters	Total Hours	Total Birds	Birds/ Hunter	Birds/ 100 Hr
Northern Region										
Box Elder	--	--	--	--	--	--	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	--	--	--	--
Central Region										
Juab	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	--	--	--	--
Southern Region										
Beaver	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--
Plute	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	--	--	--	--
Northeastern Regi										
Daggett	--	--	--	--	--	--	--	--	--	--
Duchesne	--	--	--	--	--	--	--	--	--	--
Uintah	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	--	--	--	--
Southeastern Region										
Carbon	--	--	--	--	--	--	--	--	--	--
Emery	15	34	87	21	24	24	24	8	1.00	33
Grand	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	15	34	87	21	24	24	24	8	1.00	33
STATE TOTALS	15	34	87	21	24	24	24	8	1.00	33

HUNGARIAN PARTRIDGE

SUMMARY



In 1995, an attempt to collect brood data was conducted in Box Elder County. One brood was observed.

The 1995 hunt data indicated increased hunting pressure on Huns when compared to 1994. The number of Huns harvested increased 211 percent in 1995. Hunters afield increased 21 percent. Total hunters, days afield and harvest remain dramatically below the long-term average.

We expected continued improvement in Hungarian partridge populations in Box Elder County due to the large quantity of agricultural land set aside in the Conservation Reserve Program. We believe that increases in hunter success since 1985 reflect increased partridge populations as a direct result of CRP. Exceptions (declines) in 1988 and 1989 were probably due to drought. In 1993, the dramatic decrease in number of Huns harvested probably resulted because of poor over-winter survival during 1992-93.

Brood Counts

Results of the annual random brood counts for 1995 are shown in Table 1 of this section. Long-term trends of young per adult ratios, mean brood size and Huns observed per 100 hours are shown in Tables 2-4. Results of the survey for 1995 compared to 1994 and the previous 10-year (1985-94) average follow:

	<u>1995</u>	Percent change from <u>1994</u>	Percent change from <u>Average</u>
Total Huns observed	21	--	-73
Young per 100 adults	2,000	--	+321
Mean brood size	20.00	--	+113
Huns observed per 100 hours	175	--	-10
Total hours effort	12	--	-66

Only the Northern Region attempted to collect brood count data. Hours of effort statewide was 66 percent below average, and only one brood was observed.

Harvest

Hunter Questionnaire

Results of the annual hunter questionnaire for 1995 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 1995 season compared to 1994 and the previous 36-year average follow:

	<u>1995</u>	Percent change from <u>1994</u>	Percent change from <u>Average</u>
Hungarian partridge hunters	2,294	+21	-34
Hungarian partridge harvest	5,967	+211	-19
Hunter-days afield	5,812	+52	-33
Huns per hunter-day	1.03	+106	+29
Huns per hunter	2.01	+157	+29

Ninety percent confidence interval for overall hun harvest is +/- 991.44. Standard deviation is 1.150166.

Hungarian partridge hunters and hunting pressure increased in 1995. Overall success increased 211 percent from 1994. Harvest was 19 percent below the long-term average.

Long-term Hun harvest statistics are shown in Figures 1 and 2.

Hun harvest trends increased in 1985 with the implementation of the federal Conservation Reserve Program (CRP) and continued until the severe winter of 1992-93.

Field Bag Checks

Hungarian partridge field bag check data collected in 1995 is shown in Table 10. Hunter success trends determined via this method are shown in Table 11. No data was collected in 1995.

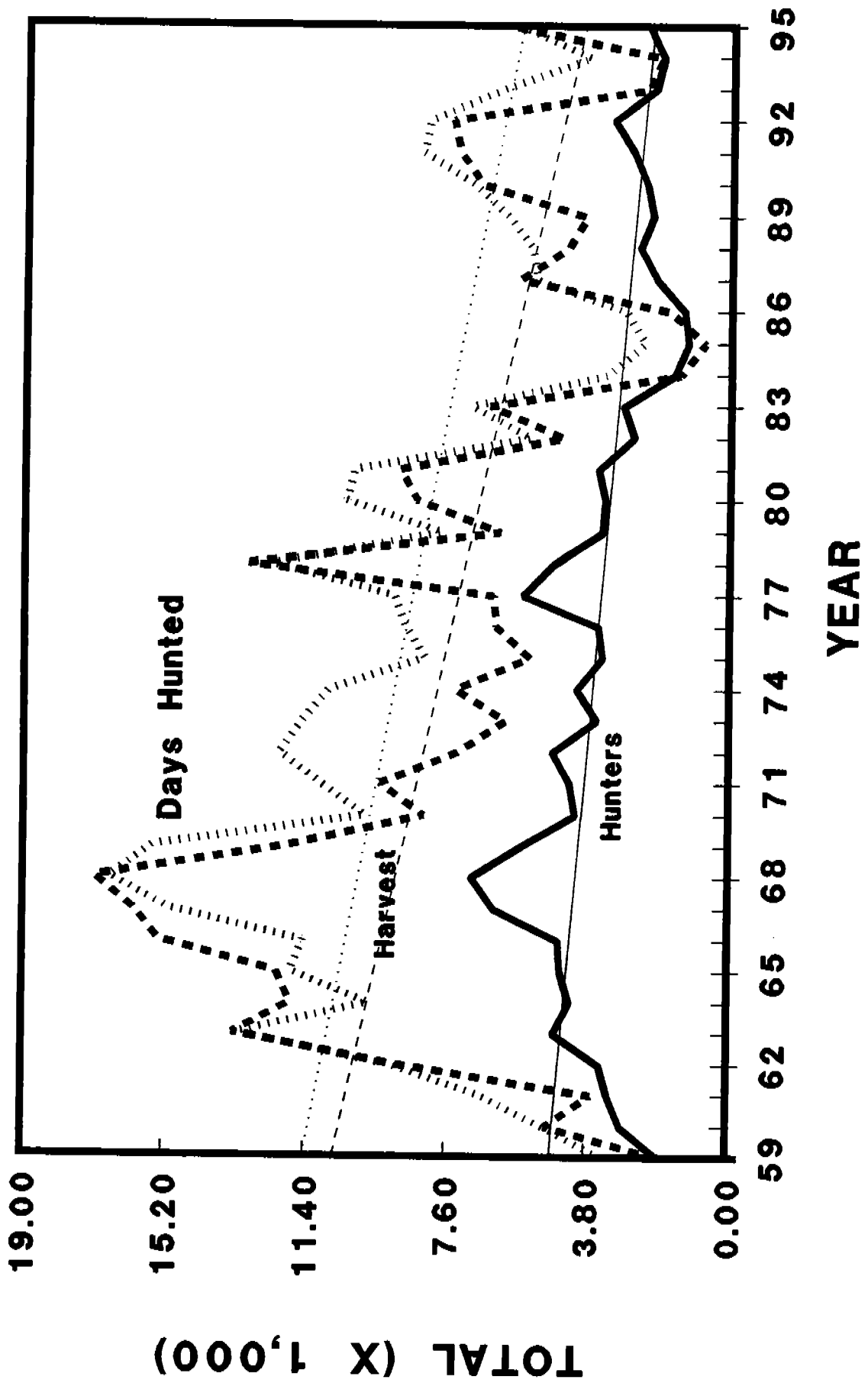
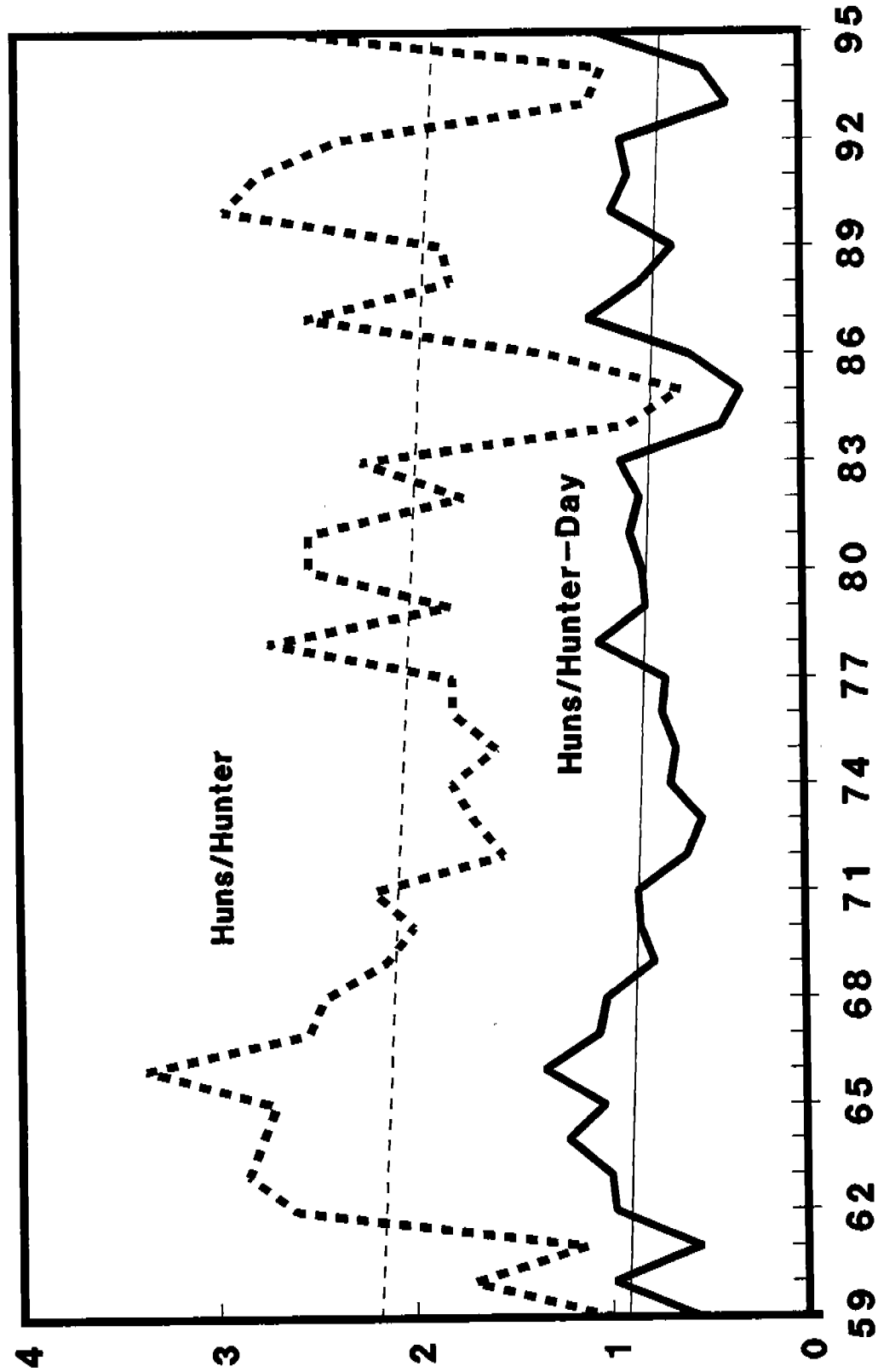


Figure 1. Statewide trends of Hungarian partridge harvest statistics, 1959-95.

HUNGARIAN PARTRIDGE PER HUNTER & PER DAY



YEAR

Figure 2. Statewide trends of Hungarian partridge hunter success rates, 1959-95.

Table 1. Hungarian partridge summer inventory, 1996.

Region and County	Distinct Broods		Mean Brood	Mixed Young & Adults		Total Young	Total Adults w/ Young	Young/100 Adult	Hours of Effort		Birds/100 Hr
	# Adults	Young		Adults	Young				Vehicle Miles	Horse Walk	
Northern Region											
Box Elder	1	1	20	0	0	1	0	2,000	--	12	176
Cache	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	1	1	20	0	0	1	0	2,000	--	12	176
Central Region											
Juab	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	--	--	--	--	--
Southern Region											
Beaver	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--
Plute	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--
Northeastern Region											
Daggett	--	--	--	--	--	--	--	--	--	--	--
Duchesne	--	--	--	--	--	--	--	--	--	--	--
Uintah	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--
Southeastern Region											
Carbon	--	--	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--
STATE TOTALS	1	1	20	0	0	1	0	2,000	--	12	176

NOT APPLICABLE

NOT APPLICABLE

NOT APPLICABLE

Table 2. Trend of Hungarian partridge young per 100 adults, 1985-96.

Region and County	Year											Average 1985-94
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Northern Region												
Box Elder	--	450	569	307	--	396	793	711	--	--	2,000	--
Cache	--	--	--	400	--	433	--	260	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	450	569	324	425	400	793	550	--	--	2,000	502
Central Region												
Juab	--	--	--	--	--	--	--	800	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--	--
Wasatch	--	400	--	400	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	400	--	400	--	--	--	800	--	--	--	533
Southern Region												
Beaver												
Garfield												
Iron												
Kane												
Millard												
Piute												
Sevier												
Washington												
Wayne												
REGIONAL TOTALS												
Northeastern Region												
Daggett									--	--	--	--
Duchesne									--	--	--	--
Uintah									760	--	--	--
REGIONAL TOTALS									760	--	--	760
Southeastern Region												
Carbon												
Emery												
Grand												
San Juan												
REGIONAL TOTALS												
STATE TOTALS	--	440	569	328	425	400	793	567	760	--	2,000	534

Table 3. Trend of average brood size for Hungarian partridge, 1985-96.

Region and County	Year											Average 1985-94
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Northern Region												
Box Elder	--	18.00	11.88	8.60	8.50	8.25	12.50	9.00	--	--	--	20.00
Cache	--	--	--	--	--	6.00	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	18.00	11.88	8.60	8.50	8.90	12.50	9.00	--	--	20.00	11.05
Central Region												
Juab	--	--	--	--	--	--	--	8.00	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--	--
Wasatch	--	4.00	--	4.00	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	4.00	--	4.00	--	--	--	8.00	--	--	--	5.33
Southern Region												
Beaver												
Garfield												
Iron												
Kane												
Millard												
Piute												
Sevier												
Washington												
Wayne												
REGIONAL TOTALS												
Northeastern Region												
Daggett												
Duchesne												
Uintah									15.00	--	--	
REGIONAL TOTALS									15.00			15.00
Southeastern Region												
Carbon												
Emery												
Grand												
San Juan												
REGIONAL TOTALS												
STATE TOTALS	--	11.00	11.88	7.83	8.50	8.90	12.50	8.83	15.00	--	20.00	10.56

NOT APPLICABLE

NOT APPLICABLE

Table 4. Trend of Hungarian partridge observed per 100 hours, 1985-95.

Region and County	Year											Average 1985-94
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Northern Region												
Box Elder	0	96	561	438	--	529	327	96	--	--	175	
Cache	--	--	--	--	88	538	--	257	--	--	--	
Davis	--	--	--	--	--	--	--	--	--	--	--	
Morgan	--	--	--	--	--	--	--	--	--	--	--	
Rich	--	--	--	--	--	--	--	--	--	--	--	
Summit	--	--	--	--	--	--	--	--	--	--	--	
Weber	--	--	--	--	--	--	--	--	--	--	--	
REGIONAL TOTALS	0	50	435	240	88	517	327	110	--	--	175	221
Central Region												
Juab	--	--	--	--	--	--	--	450	--	--	--	
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	
Sanpete	--	--	--	--	--	--	--	--	--	--	--	
Tooele	--	--	--	--	--	--	--	--	--	--	--	
Utah	--	--	--	--	--	--	--	--	--	--	--	
Wasatch	--	500	--	500	--	--	--	--	--	--	--	
REGIONAL TOTALS	--	500	--	500	--	--	--	450	--	--	--	483
Southern Region												
Beaver												
Garfield												
Iron												
Kane												
Millard												
Piute												
Sevier												
Washington												
Wayne												
REGIONAL TOTALS												
Northeastern Region												
Daggett									--	--		
Duchesne									--	--		
Uintah									8,500			
REGIONAL TOTALS									8,500			8,500
Southeastern Region												
Carbon												
Emery												
Grand												
San Juan												
REGIONAL TOTALS												
STATE TOTALS	0	60	435	248	88	517	327	118	40	--	175	204

Table 5. Summary of Hungarian partridge hunter success and distribution of harvest and hunting pressure by region and county, 1995.

REGION AND COUNTY	SAMPLE SIZE*	HUNTER-DAYS AFIELD	BIRDS BAGGED	BIRDS PER HUNTER-DAY	% OF PRESSURE	% OF HARVEST
NORTHERN REGION						
Box Elder	60	2,974	3,751	1.26	51.17	62.87
Cache	37	1,885	1,788	0.95	32.44	29.97
Davis	0	0	0	0.00	0.00	0.00
Morgan	0	0	0	0.00	0.00	0.00
Rich	0	0	0	0.00	0.00	0.00
Summit	1	58	58	1.00	1.00	0.98
Weber	2	213	97	0.45	3.68	1.63
REGIONAL TOTALS	100	5,131	5,695	1.11	88.30	95.45
CENTRAL REGION						
Juab	1	19	0	0.00	0.33	0.00
Salt Lake**	0	0	0	0.00	0.00	0.00
Sanpete**	2	77	97	1.25	1.34	1.63
Tooele	3	38	0	0.00	0.67	0.00
Utah**	2	116	0	0.00	2.01	0.00
Wasatch**	1	38	19	0.50	0.67	0.33
REGIONAL TOTALS	9	291	116	0.40	5.02	1.95
SOUTHERN REGION						
Beaver**	1	19	0	0.00	0.33	0.00
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**	0	0	0	0.00	0.00	0.00
Piute**	1	0	0	0.00	0.00	0.00
Sevier**	1	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
REGIONAL TOTALS	3	19	0	0.00	0.33	0.00
NORTHEASTERN REGION						
Daggett**	0	0	0	0.00	0.00	0.00
Duchesne**	2	116	19	0.17	2.01	0.33
Uintah**	2	38	0	0.00	0.67	0.00
REGIONAL TOTALS	4	155	19	0.13	2.68	0.33
SOUTHEASTERN REGION						
Carbon**	0	0	0	0.00	0.00	0.00
Emery**	3	116	19	0.17	2.01	0.33
Grand**	1	0	0	0.00	0.00	0.00
San Juan**	1	19	116	6.00	0.33	1.95
REGIONAL TOTALS	5	136	136	1.00	2.34	2.28
Unknown	2	77	0	0.00	1.34	0.00
STATE TOTALS	123	5,812	5,967	1.03	100.00	100.00

* Total hunter-trips from questionnaire returns.

** Closed to Hungarian partridge hunting in 1995.

Table 6. Summary of Hungarian partridge bagged per hunter-day by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	0.95	0.62	1.11	1.02	1.00	0.24	0.47	1.26
Cache	0.50	0.94	0.86	0.86	1.07	0.56	0.80	0.95
Davis	0.00	2.67	0.00	0.00	0.00	0.00	0.00	0.00
Morgan	0.00	1.33	0.00	0.00	0.04	0.57	0.00	0.00
Rich	0.00	0.00	2.13	1.35	0.76	0.53	0.80	0.00
Summit	3.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Weber	1.17	1.00	1.00	0.40	0.00	0.00	0.00	0.45
REGIONAL TOTALS	6.89	6.67	1.02	0.97	0.95	0.35	0.52	1.11
Central Region								
Juab	0.00*	0.00*	0.00*	0.00*	2.00	0.00	0.00	0.00
Salt Lake	0.09*	0.67*	0.00*	0.00*	1.00*	0.00*	0.00*	0.00*
Sanpete	0.00*	0.00*	0.00*	0.00*	0.00*	1.00*	0.00*	1.25*
Tooele	0.33	0.47	0.46	0.02	0.25	0.50	1.50	0.00
Utah	0.31*	0.00*	0.00*	0.00*	0.67*	0.13*	0.00*	0.00*
Wasatch	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.50*
REGIONAL TOTALS	0.24	0.41	0.40	0.02	0.40	0.23	0.50	0.48
Southern Region								
Beaver	0.00	0.00*	0.00*	0.00*	2.00*	0.00*	0.00*	0.00*
Garfield	0.00	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
Iron	0.00	0.00*	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*	0.00*	0.00*
Millard	0.00*	0.00*	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*	0.00*	0.00*
Sevier	0.00*	0.00*	3.00*	0.00*	1.67*	0.00*	0.00*	0.00*
Washington	2.14*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
Wasatch	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
REGIONAL TOTALS	2.14	0.00	0.60	0.00	1.40	0.50	0.00	0.00
Northeastern Region								
Daggett	0.00*	0.00*	0.00*	1.25*	0.00*	0.00*	0.00*	0.00*
Duchesne	0.00	0.00*	0.00*	1.00*	0.00*	0.00*	0.00*	0.17*
Uintah	0.00	1.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
REGIONAL TOTALS	0.00	0.00	0.00	1.20	0.00	0.00	0.00	0.13
Southeastern Region								
Carbon	0.00	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
Emery	1.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.17*
Grand	0.00	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
San Juan	0.00*	1.50*	0.00*	0.00*	0.00*	0.00*	0.00*	6.00*
REGIONAL TOTALS	1.00	1.50	0.00	0.00	0.00	2.00	0.00	1.00
Unknown Counties	0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00
STATE TOTALS	0.82	0.65	0.97	0.88	0.92	0.37	0.50	1.03

*Closed Season

Table 7. Percentage distribution of Hungarian partridge harvest by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	78.86	76.20	60.80	73.82	61.41	33.34	55.97	62.87
Cache	6.03	8.47	31.01	16.75	30.59	37.51	33.95	29.97
Davis	0.00	4.23	0.00	0.00	0.00	0.00	0.00	0.00
Morgan	0.00	2.12	0.00	0.00	0.24	3.33	0.00	0.00
Rich	0.00	0.00	5.17	6.37	3.76	7.50	7.34	0.00
Summit	2.26	0.00	0.00	0.00	0.00	0.00	0.00	0.98
Weber	2.64	2.12	0.30	1.42	0.00	0.00	0.00	1.63
REGIONAL TOTALS	89.81	93.13	97.28	98.35	96.00	61.68	97.25	95.45
Central Region								
Juab	0.00*	0.00*	0.00*	0.00*	0.47	0.00	0.00	0.00
Salt Lake	0.37*	1.06*	0.00*	0.00*	0.24*	0.00	0.00*	0.00*
Sanpete	0.00*	0.00*	0.00*	0.00*	0.00*	1.67	0.00*	1.63*
Tooele	1.88	3.70	1.82	0.24	1.18	2.50	2.75	0.00
Utah	1.88*	0.00*	0.00*	0.00*	0.47*	3.33	0.00*	0.00*
Wasatch	0.00*	0.00*	0.00*	0.00*	0.00*	0.00	0.00*	0.33*
REGIONAL TOTALS	4.15	4.76	1.82	0.24	2.35	7.50	2.75	1.95
Southern Region								
Beaver	0.00	0.00*	0.00*	0.00*	0.47*	0.00	0.00*	0.00*
Garfield	0.00	0.00*	0.00*	0.00*	0.00*	0.83	0.00*	0.00*
Iron	0.00	0.00*	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	0.00*	0.00*
Millard	0.00*	0.00*	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	0.00*	0.00*
Sevier	0.00*	0.00*	0.91*	0.00*	1.18*	0.00	0.00*	0.00*
Washington	5.66*	0.00*	0.00*	0.00*	0.00*	0.00	0.00*	0.00*
Wayne	0.00*	0.00*	0.00*	0.00*	0.00	0.00	0.00*	0.00*
REGIONAL TOTALS	5.66	0.00*	0.91	0.00*	1.65*	0.83	0.00	0.00
Northeastern Region								
Daggett	0.00*	0.00*	0.00*	1.18*	0.00*	0.00	0.00*	0.00*
Duchesne	0.00*	0.00*	0.00*	0.24*	0.00*	0.00	0.00*	0.33*
Uintah	0.00	0.53*	0.00*	0.00*	0.00*	0.00	0.00*	0.00*
REGIONAL TOTALS	0.00	0.53	0.00	0.00*	0.00*	0.00	0.00	0.33
Southeastern Region								
Carbon	0.00	0.00*	0.00*	0.00*	0.00*	0.00	0.00*	0.00*
Emery	0.37	0.00*	0.00*	0.00*	0.00*	1.67	0.00*	0.33*
Grand	0.00	0.00*	0.00*	0.00*	0.00*	0.00	0.00*	0.00*
San Juan	0.00	1.59*	0.00*	0.00*	0.00*	0.00	0.00*	1.95*
REGIONAL TOTALS	0.37	1.59	0.00	0.00*	0.00	1.67	0.00	2.28
Unknown counties	0.00	0.00	0.00	0.00	0.00	8.33	0.00	0.00
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

*Closed Season

Table 8. Percentage distribution of Hungarian partridge hunting pressure by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	68.42	80.42	53.10	64.04	56.41	51.23	60.09	51.17
Cache	9.90	5.84	34.81	17.26	26.25	24.85	21.10	32.44
Davis	1.23	1.03	0.00	0.42	0.87	0.00	1.83	0.00
Morgan	0.30	1.03	2.36	0.42	5.21	2.15	1.83	0.00
Rich	0.00	0.69	2.36	4.16	4.56	5.22	4.59	0.00
Summit	0.61	0.00	0.00	0.00	0.00	0.92	0.92	1.00
Weber	1.85	1.37	0.30	3.12	0.00	2.15	2.29	3.68
REGIONAL TOTALS	82.36	90.39	92.93	89.40	93.29	86.52	92.67	88.30
Central Region								
Juab	0.00*	0.00*	0.59*	0.00*	0.22	0.31	0.46	0.33
Salt Lake	3.40*	1.03*	0.00*	0.00*	0.22*	0.31*	0.00*	0.00*
Sanpete	0.00*	0.00*	0.00*	0.00*	0.00*	0.61*	0.92*	1.34*
Tooele	4.64	5.16	3.84	9.15*	4.34	1.84	0.92	0.67
Utah	4.95*	0.34*	0.00*	0.21*	0.65*	9.20*	0.46*	2.01*
Wasatch	1.23	1.03*	0.00*	0.00*	0.00*	0.00*	0.00*	0.67*
REGIONAL TOTALS	14.24	7.56	4.43	9.36	5.42	12.27	2.75	5.02
Southern Region								
Beaver	0.00*	0.00*	1.18*	0.21*	0.22*	0.00*	0.46*	0.33*
Garfield	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
Iron	0.00*	0.00*	0.00*	0.00*	0.22*	0.00*	0.00*	0.00*
Kane	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
Millard	0.00*	0.00*	0.00*	0.00*	0.00*	0.61*	0.00*	0.00*
Piute	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
Sevier	0.00*	0.69*	0.30*	0.00*	0.65*	0.00*	0.46*	0.00*
Washington	2.16*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
Wayne	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
REGIONAL TOTALS	2.15	0.69	1.48	0.21	1.08	0.61	0.92	0.33
Northeastern Region								
Daggett	0.00*	0.00*	0.00*	0.83*	0.00*	0.00*	0.00*	0.00*
Duchesne	0.30*	0.00*	0.00*	0.21*	0.00*	0.00*	1.38*	2.01*
Uintah	0.00*	0.34*	0.00*	0.00*	0.22*	0.00*	1.46*	0.67*
REGIONAL TOTALS	0.29	0.34	0.00*	1.04	0.22	0.00	1.83*	2.68*
Southeastern Region								
Carbon	0.61*	0.34*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
Emery	0.30*	0.00*	1.18*	0.00*	0.00*	0.00*	1.83*	2.01*
Grand	0.00*	0.00*	0.00*	0.00*	0.00*	0.31*	0.00*	0.00*
San Juan	0.00*	0.69*	0.00	0.00*	0.00*	0.00*	0.00*	0.33*
REGIONAL TOTALS	0.92	1.03	1.18	0.00	0.00	0.31	1.83	2.34
Unknown counties	0.00	0.00	0.00	0.00	0.00	0.31	0.00	1.34
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

*Closed Season

Table 9. Statewide summary of Hungarian partridge harvest statistics, 1955-95.

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
1983	2,889	6,506	6,998	0.93	2.25
1984	1,523	1,360	3,309	0.41	0.89
1985	1,157	707	2,314	0.31	0.61
1986	1,257	1,627	2,843	0.57	1.30
1987	2,010	5,711	5,246	1.09	2.53
1988	2,471	4,424	5,392	0.82	1.79
1989	2,136	3,920	6,035	0.65	1.83
1990	2,305	6,770	6,976	0.97	2.94
1991	2,662	7,376	8,367	0.88	2.77
1992	3,198	7,553	8,192	0.92	2.36
1993	2,090	2,280	6,194	0.37	1.09
1994	1,899	1,916	3,832	0.50	1.01
1995	2,294	5,967	5,812	1.03	2.60
Totals (1959-95)	127,030	270,634	316,438	--	--
Averages (1959-94)	3,465	7,352	8,629	0.80	2.01

Table 10. Hungarian partridge field bag check summary, 1995.

Region and County	All Hunts				Complete Hunts				
	Total Parties	Total Hunters	Total Hours	Total Birds	Complete Hunts	Total Hunters	Total Hours	Total Birds	Birds/100 Hr
Northern Region									
Box Elder	--	--	--	--	--	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	--	--	--
Central Region									
Juab	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	--	--	--
Southern Region									
Beaver									
Garfield									
Iron									
Kane									
Millard									
Piute									
Sevier									
Washington									
Wayne									
REGIONAL TOTALS									
Northeastern Region									
Daggett									
Duchesne									
Uintah									
REGIONAL TOTALS									
Southeastern Region									
Carbon									
Emery									
Grand									
San Juan									
REGIONAL TOTALS									
STATE TOTALS	--	--	--	--	--	--	--	--	--

NOT APPLICABLE

NOT APPLICABLE

NOT APPLICABLE

Table 11. Hungarian partridge hunter success trend as determined by field bag check, 1990-96.

Region and County	1990		1991		1992		1993		1994		1995	
	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr	Birds/ Hunter	Birds/ 100 Hr
Northern Region												
Box Elder	--	--	0.55	55	1.50	50	--	--	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	0.55	86	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	0.55	55	0.69	69	--	--	--	--	--	--
Central Region												
Juab	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--
Southern Region												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--
Northeastern Region												
Daggett	--	--	--	--	--	--	--	--	--	--	--	--
Duchesne	--	--	--	--	--	--	--	--	--	--	--	--
Uintah	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--
Southeastern Region												
Carbon	--	--	--	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--
STATE TOTALS	--	--	0.55	55	0.69	69	--	--	--	--	--	--

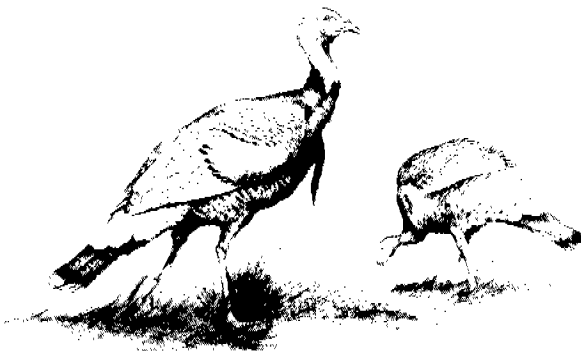
NOT APPLICABLE

NOT APPLICABLE

NOT APPLICABLE

WILD TURKEY

SUMMARY



In 1994, the entire state went to limited entry turkey hunting for both the Merriam's and Rio Grande sub-species. Drawing odds for each of the 1995 hunts is shown in Table 6.

Merriam's Turkeys

Merriam's turkey populations remain stable. Limited entry hunting was allowed on 4 units, during a total of 6 seasons. Two units were open for early and late seasons. A total of 345 permits were sold. A fall turkey hunting season was not held in Utah in 1995. A total of 64 Merriam's turkeys were harvested in 1995. Merriam's turkey hunters experienced a 22 percent success rate.

Rio Grande Turkeys

Three hundred twenty three permits were sold in 1995. A total of 78 Rio Grande turkeys were harvested in 1995 for a success rate of 63 percent.

Sealed-Bid and Auction Permits

In 1995 a limited entry Rio Grande wild turkey sealed-bid permit was available again. Minimum bid on the permit was \$350. The permit sold for \$952.00. In addition, 3 limited entry wild turkey auction permits were available and sold for \$825.00, \$600.00 and \$525.00.

Harvest

Spring Merriam's Gobbler Season

Results of the 1995 spring season are shown in Table 1 of this section. The trend of these data since 1968 is shown in Table 2 and Figures 1 and 2. Statewide summary of fall hunt statistics is in Table 3. The 1995 spring season survey compared to 1994 and the previous 26-year average follow:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Permits sold	345	+3	+24
Hunters afield	296	+4	+17
Turkeys harvested	64	+12	+87
Hunter-days afield	1,427	+28	+95
Percent hunter success	22	+10	+87
Turkeys bagged per hunter-day	0.05	0	+16
Percent of hunters who observed turkeys	--	--	--

Beginning in 1994, a limited entry turkey hunting program was implemented in Utah. Total harvest increased from 57 in 1994 to 64 in 1995, which is 12 percent. Hunter success rates increased 10 percent from 1994 and were 87 percent above the long-term average.

Spring Rio Grande Gobbler Season

Results of the 1995 spring season are shown in Table 4 of this section. The trend of these data since 1991 is shown in Table 5. The 1995 spring season compared to 1994 and the previous 4-year average follows:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Permits sold	323	+29	187
Hunters afield	123	+17	+167
Turkeys harvested	78	-1	+138
Hunter-days afield	628	+35	+214
Percent hunter success	63	-16	-8
Turkeys bagged per hunter-day	0.12	-29	-30
Percent of hunters who observed turkeys	--	--	--

One hundred twenty three hunters averaged 5.11 days-afield each to harvest a total of 78 turkeys. Sixty three percent of the hunters afield harvested a bird.

As other Rio Grande populations continue to grow throughout the state, more limited entry opportunities will be provided.

Brood Counts

Limited brood count data for 1995 is shown in Table 7.

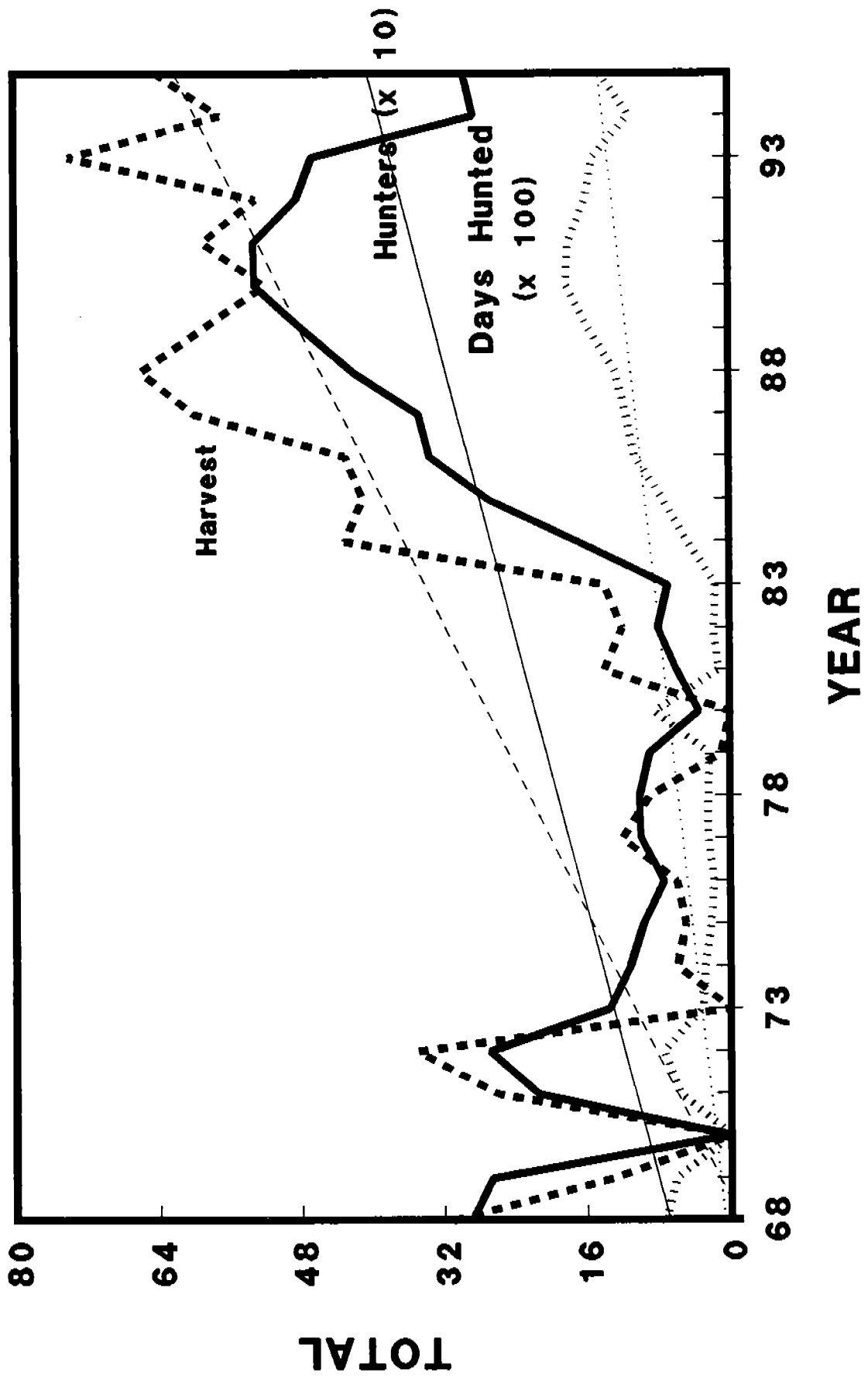


Figure 1. Spring Merriam's wild turkey hunters, harvest, and days hunted, 1968-95.

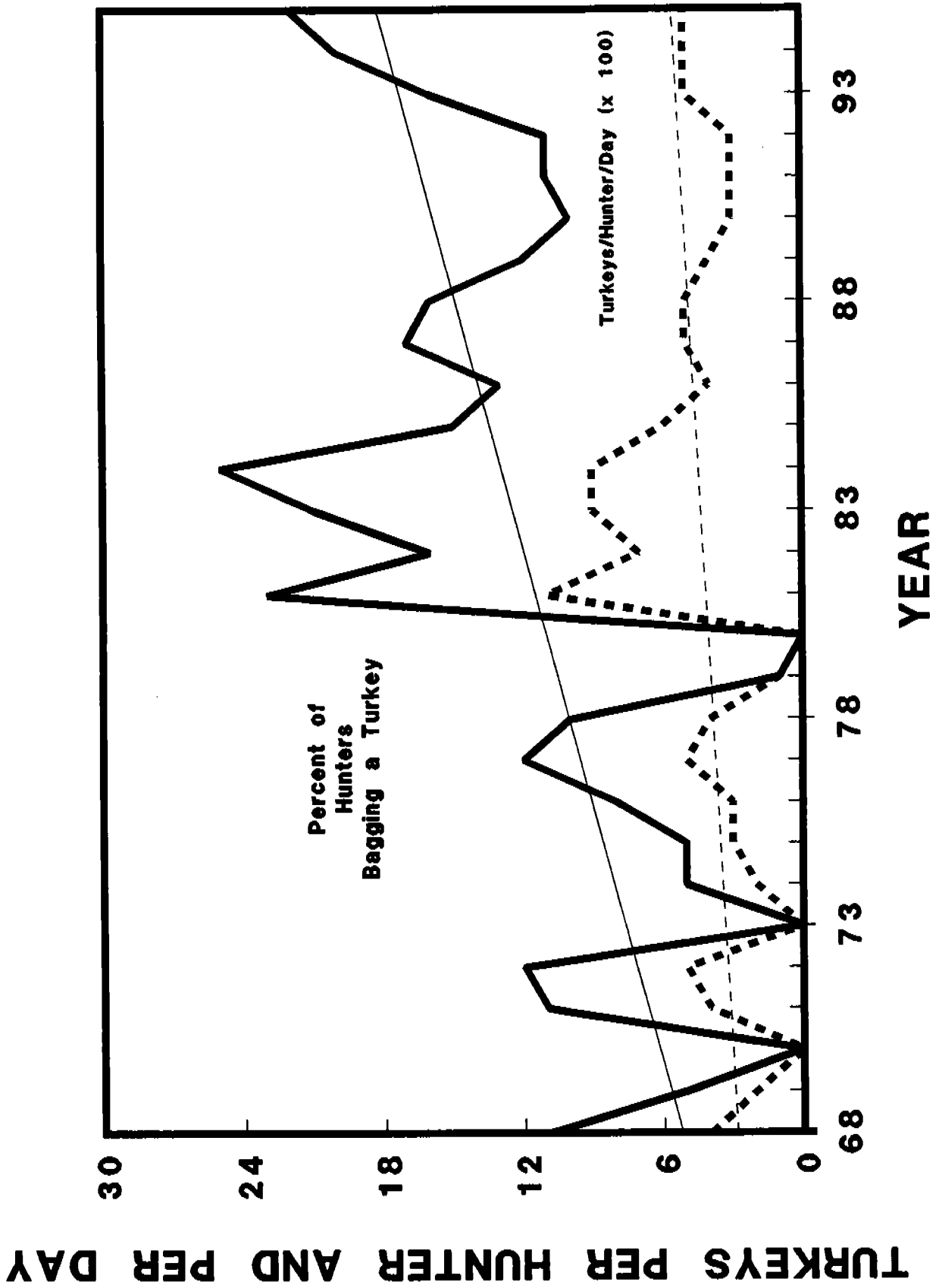


Figure 2. Spring Merriam's wild turkey hunting success, 1968-95.

Table 1. Summary of the 1995 spring Merriam's turkey season.

Data	Shoulder (early)		Shoulder (late)		Zion (early)		Zion (late)		Unit Totals		Kolob		LaSoll		STATE TOTALS		
	Rep'l	Calc	Rep'l	Calc	Rep'l	Calc	Rep'l	Calc	Calc	Rep'l	Calc	Rep'l	Calc	Rep'l	Calc	Rep'l	Calc
Permits Sold	75		75		75		75		150		35		10		345		
No Hunts	8		5		4		8		13		5		1		31		
Hunters Afield	51	65	39	64	50	69	30	59	128		20	28	8		198	296	
Total Hunter-Days	220.4	280	235.3	384	180.6	251	189.5	374	664		92.4	129	37		965	1,427	
Average Hunter-Days Afield	4.3	5.5	6.0	9.8	3.6	5.0	6.3	12.5	5.2		4.6	6.5	4.6		4.8	7.2	
Turkeys Bagged	15	19	13	21	7	10	7	14	40		1	1	3		43	64	
Percent Success	29		33		14		23		31		5		38		23		
Turkeys Bagged Per Hunter-Day	0.07		0.06		0.04		0.04				0.01		0.08		0.05		
Reported Crippling Loss (Loss/100 Bagged)	0		0		3		0				0		0		3		
Turkeys Observed					43		0				0		0		7		
Gobblers	142		41		58		61				13		20		56		
Hens	181		90		186		26				52		9		91		
Unidentified													0				
Number of Hunters																	
Who Saw Turkeys																	
Percent of Hunters																	
Who Saw Turkeys	49		33		58		27				35				40		
Percent of Hunters																	
Who Saw Gobblers	43		27		40		23				15		15		30		
Beard Length 0"-4" (% of Harvest)	28		8		37		33				0				20		
Beard Length 4"-7" (% of Harvest)	21		31		13		8				0				11		
Beard Length > 7" (% of Harvest)	50		31		50		58			100					68		
Blunt Spur (% of Harvest)	28		23		50		25				0				26		
Rounded Spur (% of Harvest)	36		54		25		25				0				37		
Sharp Spur (% of Harvest)	36		23		25		50			100					37		

Table 2. Summary of Merriman's turkey harvest statistics for spring gobbler seasons, 1967-95.

Hunting Unit	Year	Hunters		Total Harvest	Hunter-Days Afield	Percent Success*	Turkeys Per		Percent of Hunters Observing Turkeys	Total Permits**
		Afield	Total				Hunter-Day	Hunter-Day		
STATE TOTALS	1968	290	31	738	11		0.04	41	310	
	1969	267	13	612	5		0.02	22	276	
	1970					NO SEASON				
	1971	215	26	576	11		0.04	36	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	
	1983	69	14	161	21		0.09	55	92	
	1984	169	43	482	25		0.09	72	190	
	1985	270	41	747	15		0.06	52	314	
	1986	335	43	1,054	13		0.04	57	362	
	1987	347	60	1,150	17		0.05	57	384	
	1988	421	66	1,267	16		0.05	50	490	
	1989	477	59	1,568	12		0.04	55	527	
	1990	531	52	1,812	10		0.03	51	579	
	1991	532	59	1,792	11		0.03	49	587	
	1992	484	53	1,599	11		0.03	45	538	
	1993	466	74	1,508	16		0.05	54	500	
	1994***	285	57	1,112	20		0.05	-	335	
	1995	287	65	1,386	23		0.05	40	335	
STATE TOTALS (1968-95)		6,597	856	20,447	-		-	-	-	
STATE AVERAGES (1968-94)		243	30	733	11		0.04	40	269	

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

**Total permits are sold on a statewide basis and not by unit, 1968-93. In 1994, permits were sold by unit.

***Beginning in 1994, a limited entry turkey hunting program was initiated.

Table 3. Statewide summary of fall Merriam's wild turkey harvest statistics, 1964-95.

Year	Permits Sold		Hunters		Hunter-Days		Turkeys Bagged		Percent Success**	Turkeys per Hunter-Day		Crippling Loss/100 Bagged	Turkeys Observed		Percent of Hunters Observing Turkeys
	Afield	Home	Afield	Home	Afield	Home	Afield	Home		Afield	Home		Afield	Home	
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						
1983	61	49	112	15	28	0.13	0	303	49						
1984	97	86	193	28	32	0.14	14	380	49						
1985***	-	-	-	-	-	-	-	-	-						
1986***	-	-	-	-	-	-	-	-	-						
1987***	-	-	-	-	-	-	-	-	-						
1988***	-	-	-	-	-	-	-	-	-						
1989***	-	-	-	-	-	-	-	-	-						
1990***	-	-	-	-	-	-	-	-	-						
1991***	-	-	-	-	-	-	-	-	-						
1992***	-	-	-	-	-	-	-	-	-						
1993***	-	-	-	-	-	-	-	-	-						
1994***	-	-	-	-	-	-	-	-	-						
1995***	-	-	-	-	-	-	-	-	-						
TOTALS	2,560	2,340	5,622	682	-	-	-	9,269	-						
AVERAGES	122	111	268	32	21	0.10	14	441	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.

*** No fall season.

Table 4. Summary of the 1995 spring limited entry Rio Grande turkey season.

Data	Beaver (early)		Beaver (late)		Unit Totals		Duchess County		Emery County		Grand County		Millford		Morgan-Summit	
	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	20		20		40		5		5		5		5		5	
No Hunts	1		0		1		0		0		0		0		1	
Hunters Afield	14	19	18	20	39		4	5	5		3	5	4	5	4	4
Hunter-Days	74.7	100	98	109	208		37	46	25		6	10	28.5	36	39	39
Turkeys Bagged	13	17	5	6	23		3	4	5		3	5	3	4	2	2
Percent Success	93	--	28	--	59		75	--	100		100	--	75	--	50	--
Turkeys Bagged Per Hunter-Day	0.17	--	0.05	--			0.08	--	0.20		0.50	--	0.11	--	0.05	--
Reported Crippling Loss (Loss/100 Bagged)	1	--	0	--			0	--	0		0	--	0	--	0	--
8	--	--	0	--			0	--	0		0	--	0	--	0	--
Turkeys Observed																
Gobblers	116	--	55	--			16	--	61		8	--	33	--	7	--
Hens	207	--	83	--			16	--	109		36	--	28	--	15	--
Unidentified	--	--	--	--			9	--	22		15	--	--	--	0	--
Percent of Hunters Who Saw Turkeys	100	--	78	--			--	--	--		--	--	100	--	--	--
Percent of Hunters Who Saw Gobblers	100	--	67	--			--	--	--		--	--	100	--	--	--
Beard Length 0"-4" (% of Harvest)	0	--	60	--			--	--	--		--	--	0	--	--	--
Beard Length 4"-7" (% of Harvest)	8	--	20	--			--	--	--		--	--	0	--	--	--
Beard Length > 7" (% of Harvest)	92	--	20	--			--	--	--		--	--	100	--	--	--
Blunt Spur (% of Harvest)	8	--	60	--			--	--	--		--	--	40	--	--	--
Rounded Spur (% of Harvest)	38	--	20	--			--	--	--		--	--	20	--	--	--
Sharp Spur (% of Harvest)	54	--	20	--			--	--	--		--	--	40	--	--	--

Table 4. (continued)

Data	Pine Valley (early)		Pine Valley (late)		Unliah County		No. Utah County (early)		No. Utah County (late)		Unit Totals		Weber County		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	20		20		5		10		10		5		20		135	
No Huns	0		0		0		0		0		0		0		2	
Hunters Afted	18	20	18	20	3	5	10	10	10	10	3	5	20	3	114	123
Hunter-Days	60	67	88	98	15	25	41	41	53	53	16	27	94	16	581	628
Turkeys Bagged	11	12	12	13	2	3	6	6	4	4	3	5	10	3	72	78
Percent Success	61		67		67		60		40		100		50		63	
Turkeys Bagged Per Hunter-Day	0.18		0.14		0.13		0.15		0.08		0.19				0.12	
Reported Crippling Loss (Loss/100 Bagged)	3		3		0		0		1		0				8	
	27		25		0		0		25		0				11	
Turkeys Observed																
Gobblers	92		74		33										21	
Hens	141		69		34										26	
Unidentified					0										2	
Percent of Hunters Who Saw Turkeys	100		89				100		100							
Percent of Hunters Who Saw Gobblers	100		89													
Beard Length 0"-4" (% of Harvest)	18		33													
Beard Length 4"-7" (% of Harvest)	18		8													
Beard Length > 7" (% of Harvest)	64		58													
Blunt Spur (% of Harvest)	18		33													
Rounded Spur (% of Harvest)	45		42													
Sharp Spur (% of Harvest)	36		25													

Table 5. Summary of Rio Grande turkey harvest statistics for spring gobbler seasons, 1991-95.

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			
STATE TOTALS	1991	18	11	71	61	0.15	--	20			
	1992	20	15	64	75	0.23	--	21			
	1993	41	26	200	63	0.13	--	42			
	1994	105	79	464	75	0.17	--	105			
	1995	123	78	628	63	0.12	--	135			
STATE TOTALS (1991-95)		307	209	1,427	--	--	323				
STATE AVERAGES (1991-94)		46	33	200	69	0.17	--	47			

Table 6. Summary of wild turkey limited entry hunting unit drawing odds for 1995.

Hunting Unit Number	Hunting Unit Name	Permits Available	Applicants	Odds
Rio Grande				
101A	Beaver (early)	20	181	9
101B	Beaver (late)	20	157	8
102	Decheene County	5	73	15
103	Emery County	5	85	17
104	Grand County	5	26	5
105	Millford	5	55	11
106	Morgan-Summit County	5	34	7
107A	Pine Valley (early)	20	177	9
107B	Pine Valley (late)	20	105	5
108	Uintah County	5	47	9
109A	Utah County (early)	10	187	19
109B	Utah County (late)	10	122	12
110	Weber County	5	102	20
		Total	1,351	10
Merriam's				
210A	Boulder Mountain (early)	75	266	4
201B	Boulder Mountain (late)	75	119	2
202	Kolob	35	39	1
203A	Zion (early)	75	68	Under-subscribed
203B	Zion (late)	75	32	Under-subscribed
204	LaSal	10	25	3
		Total	549	--
Grand Total		480	1,900	--

Table 7. Wild turkey summer inventory summary, 1995.

Region and County	Distinct		Mean Brood	Mixed Observations	Adults w/o		Total Young	Total Young/100 Ad	Hours of Effort			Birds/100 Hr
	# Adults	Young			Young	Adults			Vehicle Miles	Horse	Walk	
Northern Region												
Box Elder	--	--	--	--	--	--	--	--	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	--	--	--	--	--	--
Central Region												
Juab	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--
Utah	3	15	5.00	4	34	0	7	49	700	--	--	--
Wasatch	1	1	1.00	4	20	0	5	21	420	--	--	--
REGIONAL TOTAL	4	16	4.00	8	54	0	12	70	583	--	--	--
Southern Region												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--
Plute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	--	--	--	--	--	--
Northeastern Region												
Daggett	--	--	--	--	--	--	--	--	--	--	--	--
Duchesne	--	--	--	--	--	--	--	--	--	--	--	--
Uintah	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	--	--	--	--	--	--
Southeastern Region												
Carbon	--	--	--	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	--	--	--	--	--	--	--	--	--	--	--	--
STATE TOTALS	4	4	16	4.00	8	54	0	12	70	583	--	--

SHARP-TAILED GROUSE

SUMMARY



SHARP
TAILED

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, sharptail habitat was directly converted to farmland or was seriously impacted by heavy grazing.

There was no legal harvest of sharp-tailed grouse from 1980 through 1995. From 1988 through 1992, the number of birds present on active dancing grounds was substantially greater than in the previous years (Table 1.). It appears sharp-tailed grouse have made a moderate recovery in "core areas." Numbers on the fringe of their range appear to be low. Concurrent with the upswing in sharp-tailed populations has been a succession of mild winters. Since the catastrophic winter of 1983-84, all winters have been normal or milder than normal except 1988-89 and 1992-93. The winter of 1992-93 devastated sharp-tailed grouse populations. In addition, wildland fires in the summer of 1994 destroyed countless acres of sharp-tailed grouse habitat in Box Elder County.

In Box Elder County, habitat associated with existing populations of sharp-tailed grouse has been relatively unchanged since 1983 except that about 100,000 acres in Box Elder County have been entered into the Conservation Reserve Program (CRP). This may be benefitting sharp-tailed grouse populations by providing undisturbed nesting and brood-rearing cover.

We have minimal recent data on sharp-tailed grouse populations in the Cache, Weber, and Morgan County areas. By 1984, populations in these areas were at or below minimum viable population levels. Efforts have increased over the past four years to locate "new" dancing grounds in these counties (Table 1.). New "core" sharp-tailed grouse habitat areas are being attributed to CRP lands in these counties.

Sharp-tailed grouse brood count information for Box Elder County in 1995 is shown in Table 2.

Table 1. Summary of sharp-tailed grouse dancing ground counts, 1979-95.

County	Name	Year																	
		1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Box Elder	West Hills Complex (Located 1977)	15	4	12	0	14	0	18	46	40	33	40**	75	53**	55**	5	6	NC	
	Hunsaker's Field (Located 1977)	3	0	0	0	0	0	0	18	0	3	0	--	3	32	4	2	NC	
	South White's Valley (Located 1977)	0	0	0	6	0	0	2	0	6	7	3	--	10	13	--	2	NC	
	North White's Valley #1 (Located 1977)	0	0	0	0	0	0	0	--	18	11	9**	--	14	5	3	7	NC	
	North White's Valley #2 (Located 1995)																	18	
	Middle Canyon (Located 1991)																	6	NC
	Pocahontas Valley Complex (Located 197)	7	7	19	19	14	5	9	20	20	19	16**	11	4	NC	--	2	NC	
	Blue Creek (Located 1991)													6**	5**	0	A	NC	
	Howell Valley #1 (Located 1991)													13**	6**	--	--	NC	
	Microwave Tower (Located 1987)								6	6	7	9	--	--	NA	--	--	NC	
Morgan	Sunset Pass (Located 1991)													8**	2**	--	--	NC	
	Nucor (Located 1991)													11**	6**	A	--	NC	
	Wellsville-Cottonwood (Located 1991)													8**	8	3	2	NC	
	Snowville-Radio Tower (Located 1991)													8**	A	0	NC		
	Johnson Canyon (Located 1994)																6	NC	
	Bankhead Well (Relocated 1975)	2	2	0	0	--	--	--	--	--	--	--	--	NA	NC	--	--	NC	
	Baxter Ridge (Relocated 1975)	--	3	5	3	--	--	--	--	--	--	--	--	NA	NC	--	--	NC	
	Grow Mountain Complex (Located 197)	13	4	11	3	--	--	--	--	--	0	--	--	27**	18**	9	8	NC	
	High Creek (Located 1981)													22**	NC	--	13	NC	
	Clarkston (Located 1991)													20**	5**	A	12	NC	
Weber	Four Mile #1 (Located 1991)													5**	27**	--	--	NC	
	Four Mile #2 (Located 1991)													4**	3	--	--	NC	
	McKenzie Flat (Located 1992)																--	NC	
	Cottonwood (Located 1975)	28	--	--	--	--	--	--	--	--	--	--	--	NA	NC	--	--	NC	
	Deep Creek		4	--	--	--	--	--	--	--	--	--	--	NA	NC	--	--	NC	
	Bohman Hollow (Located 1991)													11**	NC	--	--	NC	
	Monastery (Located 1969)	3	0	0	0	--	--	--	--	--	--	--	--	--	NC	--	--	NC	
	Total Grounds Counted	15	16	17	15	11	2	11	6	8	12	11	2	18	16	9	12	1	
	Total Grouse Counted	71	24	57	31	28	5	29	84	90	80	77	86	236	210	26	66	18	
	Average Number of Grouse/Ground	4.70	1.50	3.40	2.10	2.50	2.50	2.60	14.00	11.30	6.70	7.00	43.00	13.00	13.00	2.89	5.50	18.00	

**High sagebrush precluded an accurate count--birds were counted when flushed.
 Since visitation by females at any given time is low, an estimated 90% of the grouse seen on the ground are males.
 Therefore, this figure is an estimate of the males on the ground.

A = ACTIVE
 NA = NOT ACTIVE
 NC = NOT COUNTED

Table 2. Sharp-tailed grouse summer inventory, 1995.

Region and County	Distinct Broods		Mean Brood	Mixed Young & Adults		Total Young	Total Adults	Young/100 Adult	Hours of Effort			Birds/100 Hr
	# Adults	Young		Adults	Young				Vehicle Miles	Horse	Walk	
Northern Region												
Box Elder	1	4	4.00	0	0	4	17	24	--	12	--	175
Cache	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTAL	1	4	4.00	0	0	4	17	24	--	12	--	175
Central Region												
Juab												
Salt Lake												
Sanpete												
Tooele												
Utah												
Wasatch												
REGIONAL TOTALS												
Southern Region												
Beaver												
Garfield												
Iron												
Kane												
Millard												
Piute												
Sevier												
Washington												
Wayne												
REGIONAL TOTALS												
Northeastern Region												
Daggett												
Duchesne												
Uintah												
REGIONAL TOTALS												
Southeastern Region												
Carbon												
Emery												
Grand												
San Juan												
REGIONAL TOTALS												
STATE TOTALS	1	4	4.00	0	0	4	17	24	--	12	--	175

NOT APPLICABLE

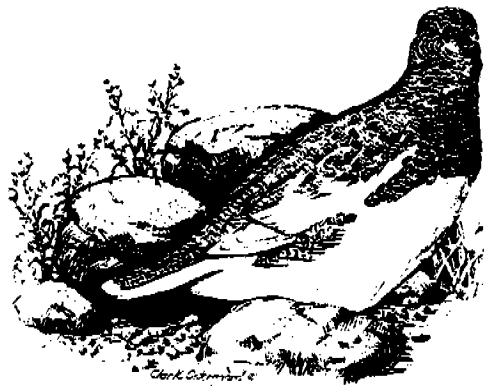
NOT APPLICABLE

NOT APPLICABLE

NOT APPLICABLE

PTARMIGAN

SUMMARY



The white-tailed ptarmigan (Lagopus leucurus) was introduced into the Uinta Mountains of northeastern 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 that same year.

Since introduction in 1976, ptarmigan have dispersed into available habitat from the west, 100 miles to the east in the Uinta Mountains.

Breeding Territory and Brood Surveys

Surveys on the ptarmigan population continue, as time and manpower constraints allow. Two survey techniques are used. A breeding territory survey is conducted from mid- to late June. A brood survey is conducted from mid- to late August. Results of the last 10 years of survey data are found in Tables 1 and 2.

A limited spring survey of breeding territories and no summer brood survey was made in 1995.

Harvest

Thirty nine hunters obtained free permits to hunt ptarmigan in Utah in 1995 (Table 3). An estimated 20 hunters actually pursued ptarmigan and 12 birds were killed. Eleven percent of the hunters afield reported observing ptarmigan.

Many permits are obtained by sportsmen who think they might hunt during a fishing or big game hunting trip, but don't seriously plan on the ptarmigan hunt.

Table 1. Summary of white-tailed ptarmigan breeding territories (pairs), 1985-95.

County	Location	1985	1986	1987	1988	1989(2)	1990	1991	1992	1993	1994	1995
Duchesne	Painter Basin											
Duchesne	Gilbert Basin	C(1) A	C(1) A		N O		N O	N O	N O	N O	N O	
Duchesne	Atwood Basin	N C	N C		S U R V E Y		S U R V E Y	S U R V E Y	S U R V E Y	S U R V E Y	S U R V E Y	
Duchesne	Yellowstone River	E L	E L		S U R V E Y		S U R V E Y	S U R V E Y	S U R V E Y	S U R V E Y	S U R V E Y	
Summit	Henry's Fork	E D	E D		S U R V E Y		S U R V E Y	S U R V E Y	S U R V E Y	S U R V E Y	S U R V E Y	
Summit	Fiat Top Mountain			3								
Summit	Lake Blanchard											
Summit	Beaver Creek											
Summit	Smith's Fork											
Summit	Burnt Fork Drainage											0
Uintah	Leidy Peak											

(1) Excessive snow cover precluded access to trail-heads during the June breeding period.

(2) Investigator was incapacitated.

Table 2. White-tailed ptarmigan brood inventory, 1985-95.

Area:	DATE										
	8/14-22/85	8/86	8/87	8/25-31	8/89	8/90	8/91	8/92	8/93	8/94	8/95
Painter Basin											
n	3	--	--	--	--	--	--	--	--	--	--
Mean Brood	--	--	--	--	--	--	--	--	--	--	--
Young/100 Adult Hens	--	--	--	--	--	--	--	--	--	--	--
Hens w/o Broods	--	--	--	--	--	--	--	--	--	--	--
Adult Males	--	--	--	--	--	--	--	--	--	--	--
Henry's Fork				(e)							
n	--	4	3	3	--	--	--	--	--	--	--
Mean Brood	--	3.75	4.00	2.33	--	--	--	--	--	--	--
Young/100 Adult Hens	--	375	217	233	--	--	--	--	--	--	--
Hens w/o Broods	--	0	3	6	--	--	--	--	--	--	--
Adult Males	--	--	--	--	--	--	--	--	--	--	--
Yellowstone											
n	--	--	--	2	1	--	--	--	--	--	--
Mean Brood	--	--	--	4.00	4.00	--	--	--	--	--	--
Young/100 Adult Hens	--	--	--	366	400	--	--	--	--	--	--
Hens w/o Broods	--	--	--	4	0	--	--	--	--	--	--
Adult Males	--	--	--	18	0	--	--	--	--	--	--
Smith's Fork											
n	--	1	--	--	--	--	--	--	--	--	--
Mean Brood	--	--	6.00	--	--	--	--	--	--	--	--
Young/100 Adult Hens	--	--	120	--	--	--	--	--	--	--	--
Hens w/o Broods	--	--	4	--	--	--	--	--	--	--	--
Adult Males	--	--	--	--	--	--	--	--	--	--	--
Atwood Basin											
n	--	--	--	--	--	--	1	--	--	--	--
Mean Brood	--	--	--	--	--	--	2.00	--	--	--	--
Young/100 Adult Hens	--	--	--	--	--	--	200	--	--	--	--
Hens w/o Broods	--	--	--	--	--	--	0	--	--	--	--
Adult Males	--	--	--	--	--	--	0	--	--	--	--

Table 2. (continued)

Area: Statistics	DATE										
	8/14-22/85	8/86	8/87	8/25-31	8/89	8/90	8/91	8/92	8/93	8/94	8/95
Flat Top Mountain											
n			1	(e) 3							
Mean Brood			6.00	4.33							
Young/100 Adult Hens			900	433							
Hens w/o Broods			0	9							
Adult Males			0	0							
Little E. Fork - Black's Fork											
n											
Mean Brood											
Young/100 Adult Hens											
Hens w/o Broods											
Adult Males											
Rainbow Basin											
n											
Mean Brood											
Young/100 Adult Hens											
Hens w/o Broods											
Adult Males											
Gilbert Basin											
n											
Mean Brood											
Young/100 Adult Hens											
Hens w/o Broods											
Adult Males											
Samuel's Draw											
n											
Mean Brood											
Young/100 Adult Hens											
Hens w/o Broods											
Adult Males											
Leidy Peak											
n			1								
Mean Brood			2.00								
Young/100 Adult Hens			200								
Hens w/o Broods			0								
Adult Males			0								

Table 2. (continued)

Area: Statistics	DATE										
	8/14-22/85	8/86	8/87	8/25-31	8/89	8/90	8/91	8/92	8/93	8/94	8/95
East F. Black's Fork											
n											
Mean Brood											
Young/100 Adult Hens											
Hens w/o Broods											
Adult Males											
Joulitous Creek				(e)							
n			1	0							
Mean Brood			1.00	0.00							
Young/100 Adult Hens			300	0							
Hens w/o Broods			0	4							
Adult Males			0	0							
TOTALS				(e)							
n	3	5	6	6	2	1	1				
Mean Brood	3.50	3.75	3.86	3.33	4.00	4.00	2.00				
Young/100 Adult Hens	350	375	236	333	366	400	200				
Hens w/o Broods	0	0	7	19	4	0	0				
Adult Males	0	0	0	0	0	0	0				
Total Birds Observed	18	19	47	45	18	5	3				
e Mixed Adults											
n Number of Broods											

Table 3. Summary of white-tailed ptarmigan harvest statistics, 1982-95. Estimates are calculated based upon 100 percent samples or projection factors.

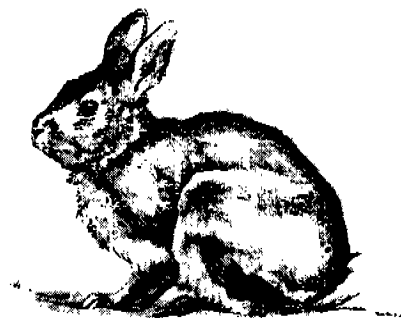
Year	Permits Sold	Hunters Afield	Hunter-Days Afield	Ptarmigan Bagged	Birds/Hunter	Ptarmigan/Hunter-Day	Crippling Loss/100 Bagged	Ptarmigan Observed	% Hunters		
									Observing Ptarmigan	Immatures per 100 Adults	
1982	48	21	33	0	0.00	0.00	0	0	--	--	--
1983	31	13	21	14	1.08	0.67	0	25	30	--	--
1984	28	20	25	36	1.80	1.44	0	--	--	--	--
1985	55	10	13	7	0.70	0.54	14	9	14	--	--
1986	49	14	21	8	0.57	0.36	0	8	22	--	--
1987	45	9	9	8	0.89	0.89	--	--	--	--	--
1988**	28	15	15	22	1.47	1.47	--	59	--	--	4.50(11)
1989	20	3	18	13	4.33	0.72	--	35	--	--	--
1990	17	11	27	17	1.55	0.63	0	28	35	--	--
1991	15	13	16	26	2.00	1.63	0	95	50	--	--
1992	17	11	17	0	0.00	0.00	0	56	38	--	--
1993	10	10	13	13	1.30	1.00	0	140	38	--	--
1994	14	4	6	0	0.00	0.00	0	3	100	--	--
1995	39	20	39	12	0.60	0.31	0	31	11	--	--

**For the first time a handling fee of \$2.00 per permit was charged.
 Projection Factor = 1.444444444 (number of permits sold/number of questionnaires returned)
 39 permits sold
 27 questionnaires returned

RABBITS AND HARES

SUMMARY

Cottontail Rabbits



Snowshoe Hares



Cottontail populations remain below a short term high in 1988.

Summer roadside counts indicated a decreased population density statewide, but reproduction was above 1994. Harvest statistics indicated increased hunter success, but is still 55 percent below average.

Hunter numbers increased 27 percent from the previous year and remained below average. Although efforts have been made to educate hunters in the identification of the snowshoe hare and the white-tailed jackrabbit, it is still a potential problem which could bias the snowshoe data.

COTTONTAIL RABBIT

Roadside Counts

Results of the annual roadside counts for 1995 are shown in Table 1 and Figure 1. The long-term trend of cottontails observed per mile and young per 100 adults is shown in Figure 4 and Tables 2 and 3. Indices for 1995 compared to 1994 and the previous 10-year (1985-94) average follow:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Total miles driven	444	+200	-57
Total cottontails counted	87	+61	-71
Cottontails observed per mile	0.20	-44	-32
Young observed per 100 adults	114	+533	+79

Production data from roadside counts indicated a decrease in the statewide cottontail population. The cottontail young per 100 adults index increased 533 percent from 1994, and was 79 percent above the long-term average. Only the Northeastern and Central regions collected roadside count data.

Harvest

Hunter Questionnaire

Results of the 1995 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 are found in Tables 5-7. Trends of statewide harvest statistics are found in Table 8 and Figures 2 and 3. Results of the 1995 season compared to 1994 and the 28-year average follow:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Cottontail hunters	13,840	+9	-42
Cottontail harvest	67,295	+42	-55
Hunter-days afield	58,042	+9	-41
Cottontails per hunter-day	1.16	+30	-20
Cottontails per hunter	4.86	+31	-18

Ninety Percent confidence interval for overall cottontail harvest is +/- 6,058.84. Standard deviation is 1.844845.

Total hunters increased 9 percent from 1994. Total harvest increased 42 percent. Total harvest was 55 percent below average. Hunter success was 20 percent below average. Harvest data indicate a year of below average populations of cottontails. Seven years of drought and the severe winter of 1992-93 have negatively affected rabbit populations statewide.

Field Bag Checks

Results of field bag checks for 1995 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 1995 field bag check data to 1994 and the previous 10-year (1985-94) average.

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Total hunters checked	--	--	--
Total hours hunted	--	--	--
Cottontails per hunter (complete hunts)	--	--	--
Cottontails bagged per 100 hours	--	--	--
Hours per hunter day	--	--	--
Hours per cottontail bagged (complete hunts)	--	--	--

No cottontail field bag check data was collected in 1995.

COTTONTAILS/MILE AND JUVENILES/ADULT

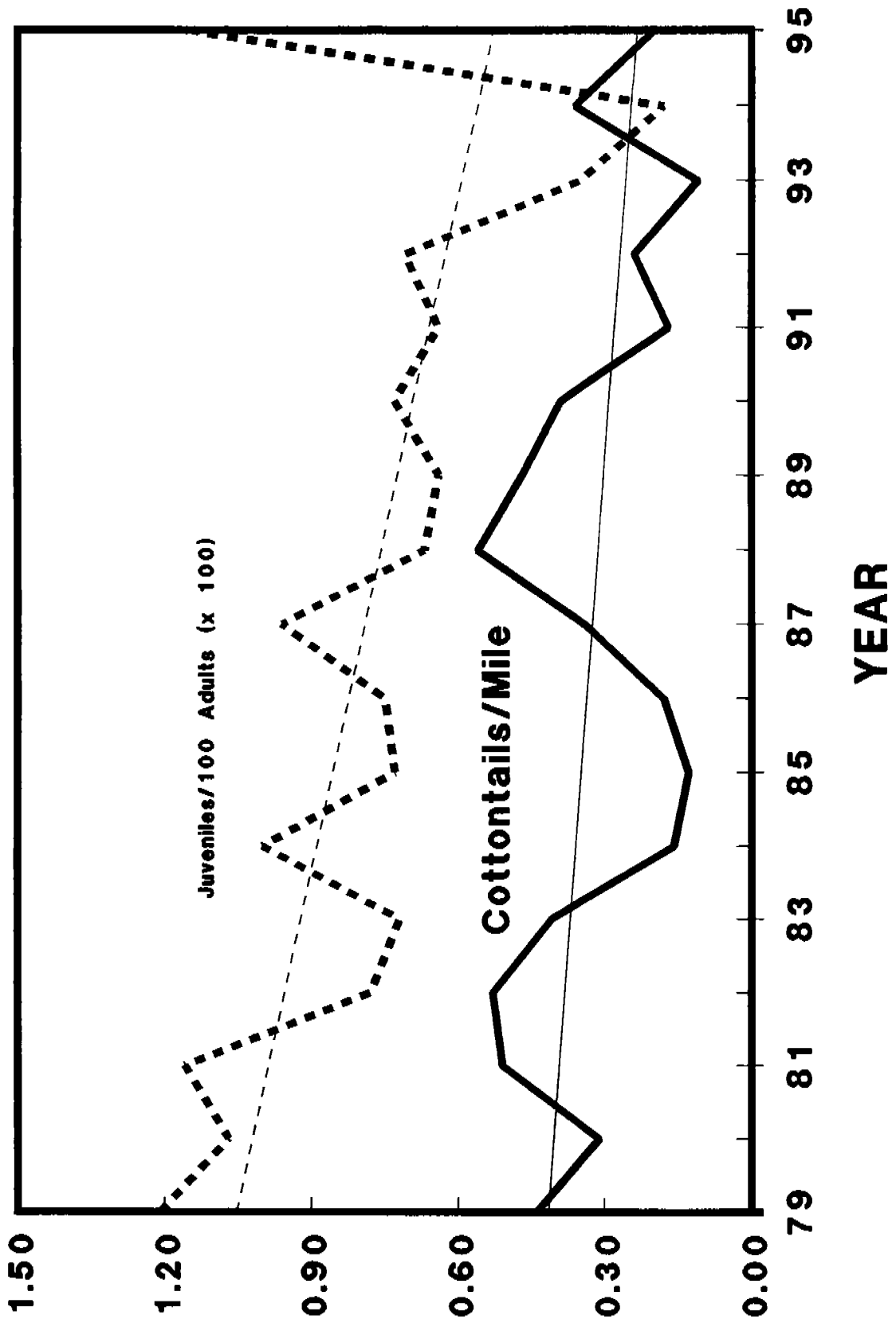


Figure 1. Cottontail rabbit population indices trends, 1979-95.

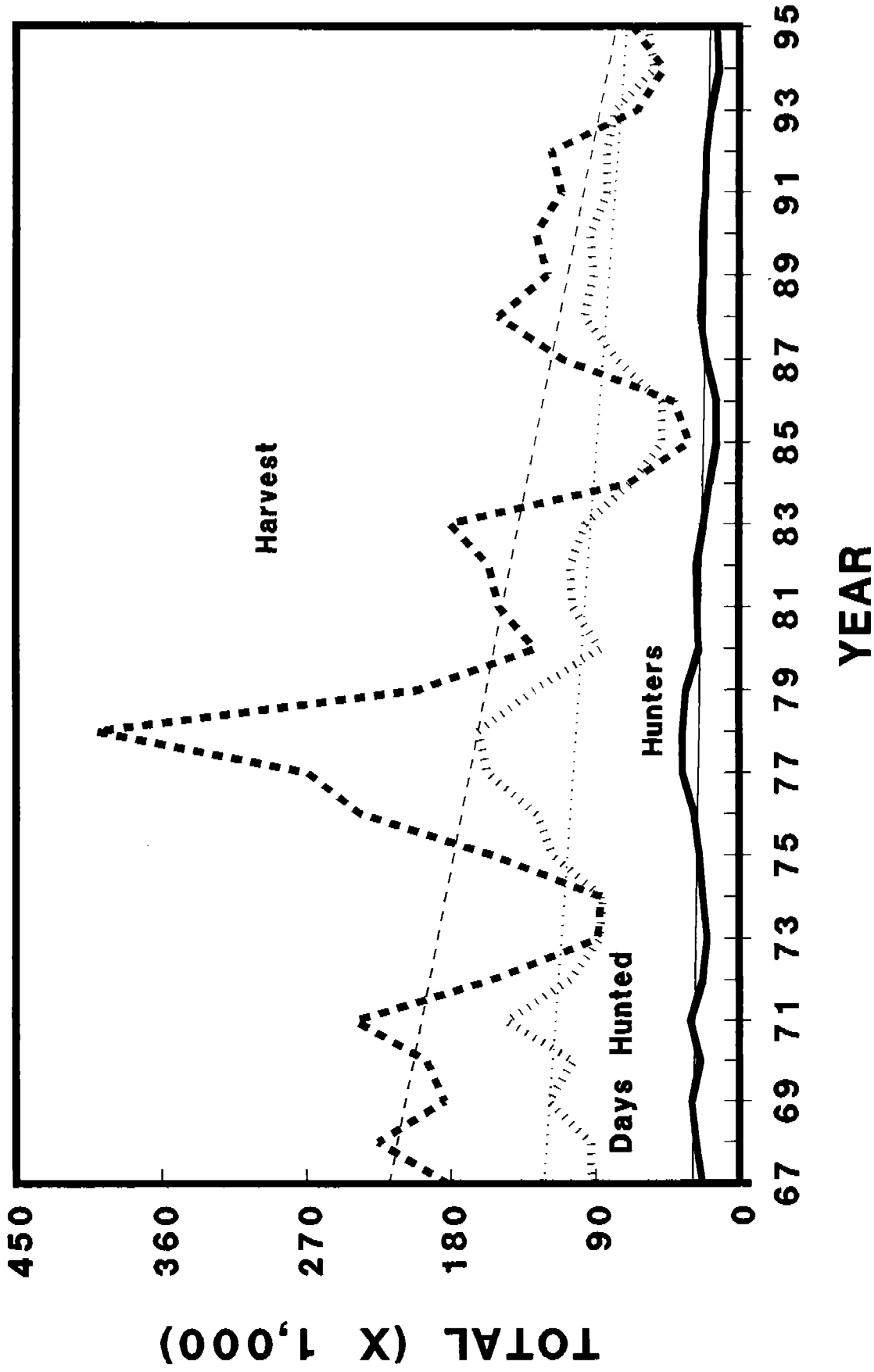


Figure 2. Statewide trends of cottontail rabbit harvest statistics, 1967-95.

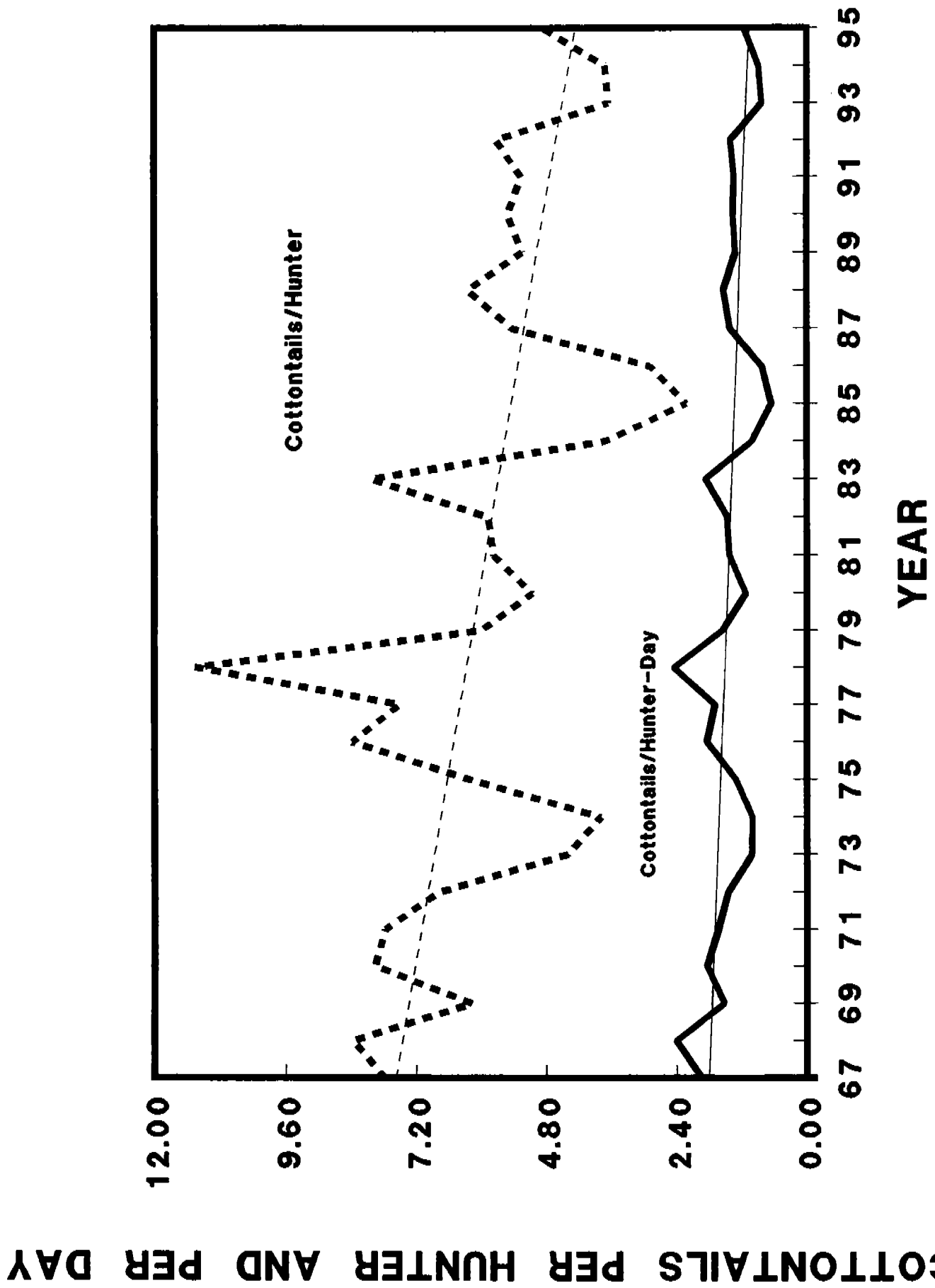


Figure 3. Statewide trends of cottontail rabbit hunter success rates, 1967-95.

FIGURE 4. COTTONTAIL RABBIT
 PRODUCTION INDICES, 1967-95.

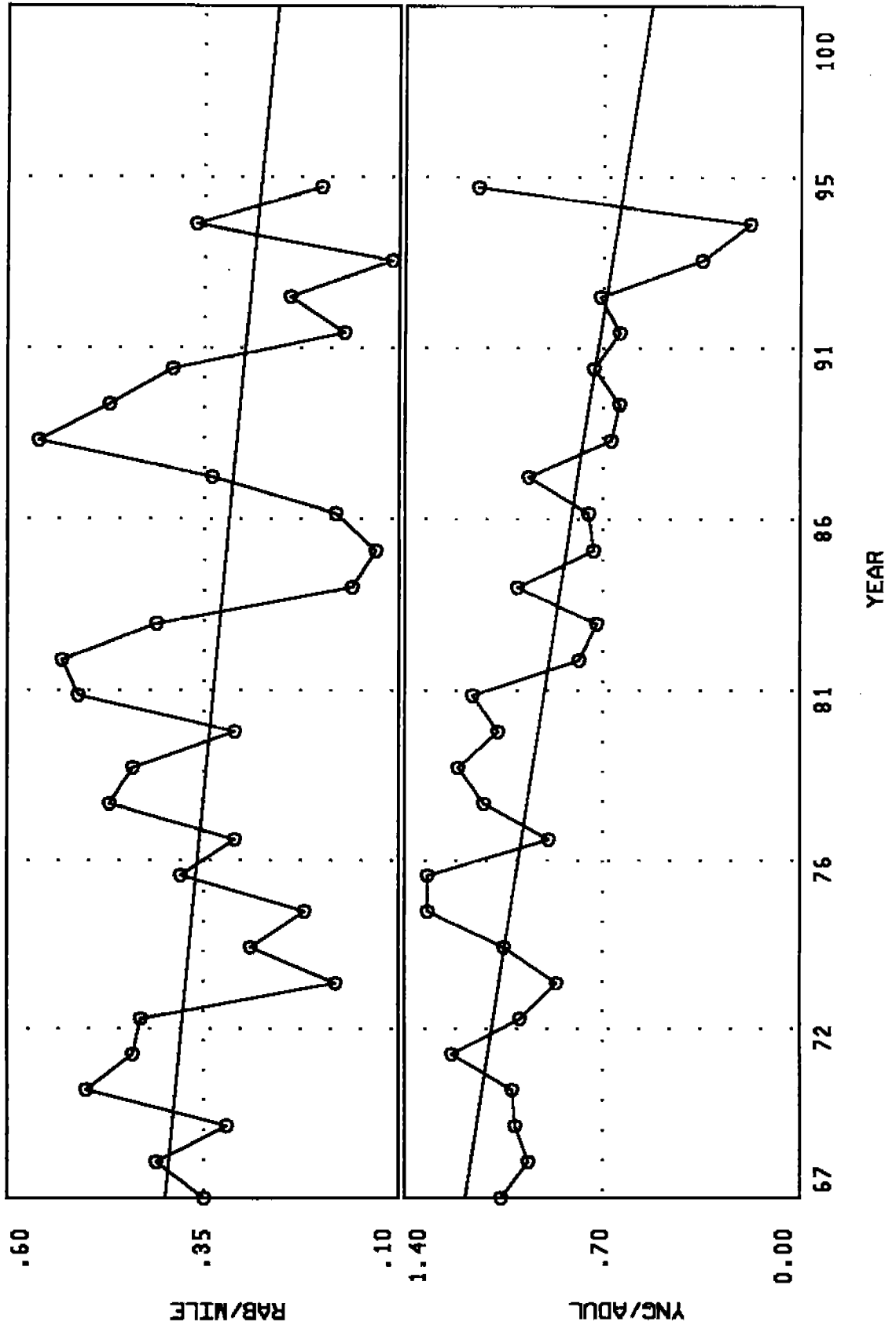


Table 1. Cottontail rabbit summer inventory summary, 1995.

Region and County	Miles Driven	Rabbits Observed				Total	Young/ 100 Adults	Rabbits/ Mile
		Adults	Young	Unclassified				
Northern Region								
Box Elder	--	--	--	--	--	--	--	
Cache	--	--	--	--	--	--	--	
Davis	--	--	--	--	--	--	--	
Morgan	--	--	--	--	--	--	--	
Rich	--	--	--	--	--	--	--	
Summit	--	--	--	--	--	--	--	
Weber	--	--	--	--	--	--	--	
REGIONAL TOTALS	--	--	--	--	--	--	--	
Central Region								
Juab	90	1	0	0	1	0	0.01	
Salt Lake	--	--	--	--	--	--	--	
Sanpete	99	3	4	0	7	133	0.07	
Tooele	53	0	1	0	1	--	0.02	
Utah	--	--	--	--	--	--	--	
Wasatch	--	--	--	--	--	--	--	
REGIONAL TOTALS	242	4	5	0	9	125	0.04	
Southern Region								
Beaver	--	--	--	--	--	--	--	
Garfield	--	--	--	--	--	--	--	
Iron	--	--	--	--	--	--	--	
Kane	--	--	--	--	--	--	--	
Millard	--	--	--	--	--	--	--	
Piute	--	--	--	--	--	--	--	
Sevier	--	--	--	--	--	--	--	
Washington	--	--	--	--	--	--	--	
Wayne	--	--	--	--	--	--	--	
REGIONAL TOTALS	--	--	--	--	--	--	--	
Northeastern Region								
Daggett	70	14	14	7	35	100	0.50	
Duchesne	80	6	11	14	31	183	0.39	
Uintah	53	4	2	6	12	50	0.23	
REGIONAL TOTALS	203	24	27	27	78	113	0.39	
Southeastern Region								
Carbon	--	--	--	--	--	--	--	
Emery	--	--	--	--	--	--	--	
Grand	--	--	--	--	--	--	--	
San Juan	--	--	--	--	--	--	--	
REGIONAL TOTALS	--	--	--	--	--	--	--	
STATE TOTALS	444	28	32	27	87	114	0.20	

Table 2. Summary of cottontail rabbits observed per mile during summer inventory, 1985-95.

Region and County	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	Average 1985-94
Northern Region												
Box Elder	--	0.02	0.03	--	0.03	0.39	0.10	0.08	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	0.02	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	0.02	0.03	--	0.03	0.39	0.10	0.08	--	--	--	0.11
Central Region												
Juab	0.00	0.02	0.00	0.54	0.30	0.23	--	--	--	--	0.01	0.01
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	0.47	0.22	0.65	0.09	0.15	0.01	--	0.07	0.07
Tooele	0.00	0.01	0.02	0.18	--	--	--	0.03	--	--	0.02	0.02
Utah	--	--	--	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	0.00	0.01	0.02	0.36	0.26	0.45	0.09	0.08	0.01	--	0.04	0.14
Southern Region												
Beaver	0.03	0.10	0.04	0.06	--	--	--	--	--	--	--	--
Garfield	0.06	0.13	--	--	--	--	--	--	--	--	--	--
Iron	0.33	0.53	0.26	--	--	--	--	--	--	--	--	--
Kane	0.52	0.47	0.97	1.09	--	--	--	--	--	--	--	--
Millard	0.02	0.08	0.09	0.09	--	0.08	--	--	--	--	--	--
Plute	--	0.06	0.05	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--
Washington	0.23	0.12	0.12	0.36	0.33	--	--	--	--	--	--	--
Wayne	--	0.20	0.24	0.34	--	--	0.83	0.21	--	--	--	--
REGIONAL TOTALS	0.19	0.24	0.27	0.33	0.33	0.08	0.83	0.21	--	--	--	0.31
Northeastern Region												
Daggett	0.12	0.22	0.66	0.85	0.50	0.55	--	0.28	0.07	0.07	0.50	0.50
Duchesne	0.13	0.44	0.86	1.49	1.04	0.23	0.03	0.60	0.23	0.56	0.39	0.39
Uintah	0.00	0.02	0.36	1.26	1.40	1.00	--	0.18	0.17	0.24	0.23	0.23
REGIONAL TOTALS	0.09	0.25	0.65	1.18	0.91	0.57	0.03	0.38	0.16	0.36	0.39	0.46
Southeastern Region												
Carbon	0.05	0.08	0.33	0.41	0.34	0.02	0.20	0.21	0.13	--	--	--
Emery	0.20	--	0.40	0.34	0.33	0.40	0.37	0.34	0.06	--	--	--
Grand	0.67	0.80	--	0.10	0.06	0.01	0.05	0.13	0.20	--	--	--
San Juan	0.14	0.37	0.29	0.59	0.55	0.80	0.28	0.34	0.16	--	--	--
REGIONAL TOTALS	0.13	0.17	0.38	0.36	0.32	0.36	0.24	0.26	0.14	--	--	0.26
STATE TOTALS	0.13	0.18	0.34	0.56	0.47	0.39	0.17	0.24	0.11	0.36	0.20	0.30

Table 3. Summary of cottontail rabbit young per 100 adults, 1985-95.

Region and County	Year											Average 1985-94
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Northern Region												
Box Elder	--	0	25	--	200	200	13	67	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	50	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	20	25	--	200	200	13	67	--	--	--	87
Central Region												
Juab	0	0	0	20	13	--	--	--	--	--	--	0
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	88	40	40	50	50	--	--	--	133
Tooele	--	--	100	120	--	--	--	100	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	0	0	100	57	23	27	50	57	--	--	125	39
Southern Region												
Beaver	--	22	--	--	--	--	--	--	--	--	--	--
Garfield	33	38	--	--	--	--	--	--	--	--	--	--
Iron	82	75	--	--	--	--	--	--	--	--	--	--
Kane	100	71	111	149	--	--	--	--	--	--	--	--
Millard	200	170	114	110	--	100	--	--	--	--	--	--
Plute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--
Washington	73	133	175	100	131	--	--	--	--	--	--	--
Wayne	--	360	2100	244	--	--	369	138	--	--	--	--
REGIONAL TOTALS	85	100	137	136	131	100	369	138	--	--	--	149
Northeastern Region												
Daggett	46	136	116	30	59	55	--	89	33	--	100	--
Duchesne	15	26	24	39	29	--	50	138	36	17	183	--
Uintah	0	100	264	170	239	95	--	10	80	50	50	--
REGIONAL TOTALS	31	58	74	46	82	58	50	95	47	18	113	56
Southeastern Region												
Carbon	--	150	567	500	400	400	--	25	--	--	--	--
Emery	216	--	64	50	--	--	--	--	--	--	--	--
Grand	300	300	--	--	--	--	--	40	--	--	--	--
San Juan	43	61	47	49	80	60	64	37	18	--	--	--
REGIONAL TOTALS	88	69	100	64	110	67	100	33	18	--	--	72
STATE TOTALS	73	75	96	67	64	73	64	71	35	18	114	64

Table 4. Summary of cottontail rabbit hunter success and distribution of harvest and hunting pressure by region and county, 1995.

REGION AND COUNTY	SAMPLE SIZE*	HUNTER-DAYS AFIELD	BIRDS BAGGED	BIRDS PER HUNTER-DAY	% OF PRESSURE	% OF HARVEST
NORTHERN REGION						
BOX ELDER	111	5,598	5,578	1.00	9.65	8.29
CACHE	9	485	369	0.76	0.84	0.55
DAVIS	3	194	97	0.50	0.33	0.14
MORGAN	1	19	77	4.00	0.03	0.12
RICH	15	680	913	1.34	1.17	1.36
SUMMIT	7	583	427	0.73	1.00	0.64
WEBER	10	933	816	0.88	1.61	1.21
REGIONAL TOTALS	156	8,494	8,280	0.97	14.64	12.31
CENTRAL REGION						
JUAB	51	2,118	1,030	0.49	3.65	1.53
SALT LAKE	11	408	233	0.57	0.70	0.35
SANPETE	18	1,457	1,088	0.75	2.51	1.62
TOOELE	106	7,406	3,926	0.53	12.76	5.83
UTAH	92	5,831	3,712	0.64	10.05	5.52
WASATCH	9	1,030	213	0.21	1.77	0.32
REGIONAL TOTALS	287	18,252	10,285	0.56	31.45	15.16
SOUTHERN REGION						
BEAVER	13	1,613	622	0.39	2.78	0.92
GARFIELD	8	699	952	1.36	1.21	1.42
IRON	14	1,593	1,088	0.68	2.75	1.62
KANE	5	155	544	3.50	0.27	0.81
MILLARD	33	1,321	1,166	0.88	2.28	1.73
PIUTE	5	97	77	0.80	0.17	0.12
SEVIER	14	1,088	427	0.39	1.88	0.64
WASHINGTON	37	3,537	4,004	1.13	6.10	5.95
WAYNE	11	311	427	1.38	0.54	0.64
REGIONAL TOTALS	140	10,418	9,310	0.89	17.95	13.84
NORTHEASTERN REGION						
DAGGETT	8	213	758	3.55	0.37	1.13
DUCHESNE	75	4,898	11,760	2.40	8.44	17.48
UINTAH	73	5,228	14,501	2.77	9.01	21.55
REGIONAL TOTALS	156	10,341	27,019	2.61	17.82	40.15
SOUTHEASTERN REGION						
CARBON	29	3,460	4,101	1.19	5.96	6.09
EMERY	39	2,701	3,362	1.24	4.66	5.00
GRAND	17	1,516	1,827	1.21	2.61	2.72
SAN JUAN	24	2,002	2,274	1.14	3.45	3.38
REGIONAL TOTALS	109	9,680	11,565	1.19	16.68	17.19
UNKNOWN	12	855	913	1.07	1.47	1.36
STATE TOTALS	860	58,042	67,295	1.16	100.00	100.00

*Total hunter trips from questionnaire returns.

Table 5. Summary of cottontail rabbits bagged per hunter-day by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	1.78	1.29	1.49	1.31	1.46	0.71	0.82	1.00
Cache	0.37	0.66	0.87	1.41	1.50	0.76	1.30	0.76
Davis	0.50	1.00	0.25	1.50	0.00	0.08	0.00	0.50
Morgan	1.50	0.17	0.43	1.53	1.08	0.33	0.47	4.00
Rich	1.86	1.37	2.52	2.62	2.50	0.56	1.21	1.34
Summit	0.92	0.58	0.72	1.24	0.81	1.22	1.39	0.73
Weber	0.61	0.27	1.06	0.88	0.89	0.64	0.28	0.88
REGIONAL TOTALS	1.49	1.09	1.55	1.47	1.50	0.71	0.77	0.97
Central Region								
Juab	1.52	1.52	1.55	1.68	1.54	0.83	0.64	0.49
Salt Lake	0.53	1.35	0.79	0.72	0.97	0.57	2.00	0.57
Sanpete	1.62	1.10	0.85	1.26	0.86	0.40	1.02	0.75
Tooele	1.37	1.20	1.08	1.23	1.26	0.48	0.70	0.53
Utah	1.04	0.90	0.84	0.99	1.00	0.56	0.46	0.64
Wasatch	0.99	1.50	0.69	1.06	1.70	0.83	1.57	0.21
REGIONAL TOTALS	1.27	1.18	1.03	1.24	1.19	0.57	0.67	0.56
Southern Region								
Beaver	1.44	0.41	1.17	0.69	2.44	0.67	1.50	0.39
Garfield	1.41	1.97	1.03	0.46	0.52	1.53	1.04	1.36
Iron	1.58	0.85	1.21	1.06	0.94	0.80	1.05	0.68
Kane	1.41	1.00	0.90	0.93	0.97	1.62	0.91	3.50
Millard	1.09	1.27	1.84	1.15	1.35	1.56	0.69	0.88
Piute	1.25	0.28	1.36	0.57	0.00	0.63	0.33	0.80
Sevier	1.45	0.97	1.45	0.65	1.27	0.69	0.67	0.39
Washington	2.10	0.91	0.89	0.68	1.03	1.02	1.01	1.13
Wayne	1.49	1.05	1.34	1.20	2.26	0.73	1.06	1.38
REGIONAL TOTALS	1.41	1.05	1.30	0.89	1.32	1.11	0.93	0.89
Northeastern Region								
Daggett	3.02	1.65	1.79	1.83	2.00	1.47	1.52	3.55
Duchesne	2.38	1.49	1.83	2.15	1.97	1.16	1.43	2.40
Uintah	2.32	3.16	2.41	1.61	1.74	0.82	1.55	2.77
REGIONAL TOTALS	2.40	2.13	2.10	1.86	1.87	1.04	1.51	2.61
Southeastern Region								
Carbon	1.29	0.97	1.43	1.75	1.51	0.69	0.89	1.19
Emery	1.78	0.80	1.06	1.03	1.43	0.88	0.90	1.24
Grand	2.03	1.00	1.58	1.75	1.66	1.86	1.21	1.21
San Juan	1.67	1.28	1.37	1.87	2.34	0.81	0.97	1.14
REGIONAL TOTALS	1.55	0.93	1.28	1.50	1.63	0.88	0.94	1.19
Unknown counties	1.49	2.00	0.00	0.00	0.00	1.40	0.00	1.07
STATE TOTALS	1.43	1.55	1.32	1.36	1.35	1.41	0.83	1.16

Table 6. Percentage distribution of cottontail rabbit harvest by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	12.11	7.20	9.84	9.06	13.30	7.38	8.84	8.29
Cache	0.27	0.47	1.07	1.61	1.50	2.04	1.60	0.55
Davis	0.12	0.07	0.02	0.14	0.00	0.03	0.00	0.14
Morgan	0.19	0.03	0.05	0.41	0.65	0.12	0.56	0.12
Rich	1.05	1.92	6.07	4.14	4.31	0.56	0.85	1.36
Summit	0.77	0.73	0.63	2.00	0.79	0.97	0.41	0.64
Weber	0.42	0.14	0.27	0.45	0.59	0.62	0.33	1.21
REGIONAL TOTALS	14.96	10.55	17.95	17.80	21.14	11.71	12.56	12.31
Central Region								
Juab	6.05	6.32	5.86	7.68	7.50	6.20	4.09	1.53
Salt Lake	0.49	0.40	0.68	0.36	1.09	0.97	0.30	0.35
Sanpete	3.74	3.70	3.34	2.80	3.39	0.97	4.09	1.62
Tooele	13.72	14.73	11.60	16.76	15.72	10.18	10.59	5.83
Utah	8.61	5.20	6.51	6.20	6.42	5.28	4.42	5.52
Wasatch	0.92	0.47	0.44	1.09	1.10	0.59	0.41	0.32
REGIONAL TOTALS	33.55	30.82	28.43	34.88	35.22	24.20	23.89	15.16
Southern Region								
Beaver	0.68	0.40	0.44	0.92	1.51	0.18	3.90	0.92
Garfield	0.42	2.66	1.16	0.09	0.17	0.86	1.00	1.42
Iron	1.54	0.92	2.02	1.03	1.03	1.86	2.38	1.62
Kane	0.84	1.23	0.90	1.33	0.50	2.15	1.49	0.81
Millard	2.99	2.80	5.02	4.18	4.99	8.29	3.75	1.73
Piute	0.22	0.09	0.61	0.06	0.00	0.15	0.11	0.12
Sevier	2.28	1.66	3.07	1.75	1.79	2.27	2.23	0.64
Washington	1.90	2.69	2.02	1.34	0.94	6.96	6.24	5.95
Wayne	0.77	1.02	1.08	1.12	0.92	0.71	1.30	0.64
REGIONAL TOTALS	11.69	13.46	16.33	11.84	11.85	23.43	22.40	13.84
Northeastern Region								
Daggett	2.82	3.21	2.37	3.28	1.63	3.13	1.19	1.13
Duchesne	9.43	12.37	8.55	10.98	8.67	12.95	5.83	17.48
Uintah	13.20	19.31	13.44	9.10	7.25	8.29	11.55	21.55
REGIONAL TOTALS	25.45	34.89	24.27	23.36	17.55	24.37	18.57	40.15
Southeastern Region								
Carbon	4.65	4.56	5.83	5.04	6.05	4.22	10.25	6.09
Emery	5.91	3.78	4.20	3.26	4.13	4.19	4.20	5.00
Grand	0.74	0.26	0.66	0.66	0.73	2.69	5.60	2.72
San Juan	0.77	1.43	2.33	3.15	3.33	2.39	5.50	3.38
REGIONAL TOTALS	12.09	10.04	13.02	12.12	14.24	13.48	22.55	17.19
Unknown counties	2.24	0.24	0.00	0.00	0.00	2.80	0.00	1.36
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 7. Percentage distribution of cottontail rabbit hunting pressure by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	10.53	7.34	9.00	9.33	12.87	8.60	9.55	9.65
Cache	1.15	0.93	1.67	1.53	1.41	2.22	1.06	0.84
Davis	0.37	0.09	0.09	0.13	0.00	0.29	0.33	0.33
Morgan	0.20	0.27	0.15	0.36	0.85	0.29	1.06	0.03
Rich	0.87	1.84	3.28	2.12	2.44	0.83	0.63	1.17
Summit	1.30	1.64	1.19	2.16	1.37	0.66	0.93	1.00
Weber	1.06	0.68	0.35	0.69	0.94	0.80	1.06	1.61
REGIONAL TOTALS	15.51	2.80	15.74	16.33	19.88	13.70	14.64	14.64
Central Region								
Juab	6.15	5.48	5.15	6.16	6.88	6.19	5.72	3.65
Salt Lake	1.46	0.39	1.17	0.67	1.58	1.41	0.13	0.70
Sanpete	3.57	4.41	5.35	2.98	5.56	2.00	3.57	2.51
Tooele	15.44	16.16	14.61	18.35	17.65	17.38	13.39	12.76
Utah	12.83	7.61	10.50	8.43	9.06	7.73	8.50	10.05
Wasatch	1.44	0.41	0.86	1.39	0.92	0.58	0.23	1.77
REGIONAL TOTALS	40.90	34.45	37.63	37.98	41.65	35.29	31.54	31.45
Southern Region								
Beaver	0.73	1.27	0.51	1.79	0.88	0.22	2.31	2.78
Garfield	0.46	1.77	1.54	0.27	0.45	0.46	0.86	1.21
Iron	1.51	1.41	2.27	1.30	1.54	1.93	2.02	2.75
Kane	0.92	1.61	1.36	1.91	0.73	1.10	1.45	0.27
Millard	4.24	2.91	3.72	4.92	5.21	4.39	4.86	2.28
Piute	0.27	0.41	0.62	0.15	0.04	0.19	0.30	0.17
Sevier	2.43	2.25	2.88	3.61	1.99	2.71	2.98	1.88
Washington	1.40	3.91	3.10	2.67	1.28	5.63	5.49	6.10
Wayne	0.80	1.27	1.10	1.26	0.58	0.80	1.09	0.54
REGIONAL TOTALS	12.81	16.82	17.10	17.89	12.70	17.43	21.36	17.95
Northeastern Region								
Daggett	1.44	2.57	1.80	2.42	1.15	1.75	0.69	0.37
Duchesne	6.13	10.91	6.36	6.87	6.22	9.26	3.64	8.44
Uintah	8.81	8.05	7.55	7.61	5.88	8.31	6.64	9.01
REGIONAL TOTALS	16.38	21.52	15.71	16.90	13.25	19.33	10.98	17.82
Southeastern Region								
Carbon	5.60	6.20	5.55	3.89	5.66	5.02	10.28	5.96
Emery	5.15	6.23	5.39	4.25	4.08	3.95	4.13	4.66
Grand	0.56	0.34	0.57	0.50	0.62	1.19	1.92	2.61
San Juan	0.72	1.48	2.31	2.27	2.01	2.44	5.06	3.45
REGIONAL TOTALS	12.04	14.25	13.82	10.91	12.37	12.60	21.39	16.68
Unknown counties	2.33	0.16	0.00	0.00	0.15	1.66	0.10	1.47
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 8. Statewide summary of cottontail rabbit harvest statistics, 1967-95.

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
1983	22,467	180,767	96,151	1.88	8.05
1984	18,616	69,186	67,643	1.02	3.72
1985	14,059	31,397	48,371	0.65	2.23
1986	13,992	40,636	48,694	0.83	2.90
1987	20,322	110,411	77,047	1.43	5.43
1988	24,076	150,386	97,190	1.55	6.25
1989	22,878	120,075	91,264	1.32	5.25
1990	23,070	127,389	93,515	1.36	5.52
1991	21,137	111,407	82,772	1.35	5.27
1992	20,509	117,454	83,154	1.41	5.73
1993	17,578	64,400	77,968	0.83	3.66
1994	12,709	47,322	53,175	0.89	3.72
1995	13,840	67,295	58,042	1.16	4.86
Totals (1967-95)	681,766	4,289,195	2,795,972	--	--
Averages (1967-94)	23,855	150,782	97,783	1.46	5.96

Table 9. Cottontail rabbit field bag check summary, 1995.

Region and County	All Hunts				Complete Hunts				
	Total Parties	Total Hunters	Total Hours	Total Rabbits	Complete Hunts	Total Hunters	Total Hours	Total Rabbits	Rabbits/ Hunter 100 Hr
Northern Region									
Box Elder
Cache
Davis
Morgan
Rich
Summit
Weber
REGIONAL TOTALS
Central Region									
Juab
Salt Lake
Sanpete
Tooele
Utah
Wasatch
REGIONAL TOTALS
Southern Region									
Beaver
Garfield
Iron
Kane
Millard
Piute
Sevier
Washington
Wayne
REGIONAL TOTALS
Northeastern Region									
Daggett
Duchesne
Uintah
REGIONAL TOTALS
Southeastern Region									
Carbon
Emery
Grand
San Juan
REGIONAL TOTALS
STATE TOTALS

Table 10. Cottontail rabbit hunter success trend as determined by field bag check, 1990-95.

Region and County	1990		1991		1992		1993		1994		1995	
	Rabbits/ Hunter	Rabbits/ 100 Hr	Rabbits/ Hunter	Rabbits/ 100 Hr	Rabbits/ Hunter	Rabbits/ 100 Hr	Rabbits/ Hunter	Rabbits/ 100 Hr	Rabbits/ Hunter	Rabbits/ 100 Hr	Rabbits/ Hunter	Rabbits/ 100 Hr
Northern Region												
Box Elder	25	1.50	313	3.57	--	--	--	--	--	--	--	--
Cache	--	--	--	--	--	--	--	--	--	--	--	--
Davis	--	--	--	--	--	--	--	--	--	--	--	--
Morgan	--	--	--	--	--	--	--	--	--	--	--	--
Rich	--	--	--	--	--	--	--	--	--	--	--	--
Summit	--	--	--	--	--	--	--	--	--	--	--	--
Weber	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	25	0.21	313	3.57	--	--	--	--	--	--	--	--
Central Region												
Juab	--	--	--	--	--	--	--	--	--	--	--	--
Salt Lake	--	--	--	--	--	--	--	--	--	--	--	--
Sanpete	--	--	--	--	--	--	--	--	--	--	--	--
Tooele	--	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--	--
Wasatch	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--
Southern Region												
Beaver	--	--	--	--	--	--	--	--	--	--	--	--
Garfield	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Kane	--	--	--	--	--	--	--	--	--	--	--	--
Millard	--	--	--	--	--	--	--	--	--	--	--	--
Piute	--	--	--	--	--	--	--	--	--	--	--	--
Sevier	--	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Wayne	--	--	21	1.02	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	21	1.02	--	--	--	--	--	--	--	--
Northeastern Region												
Daggett	--	--	--	--	1.25	--	--	--	--	--	--	--
Duchesne	450	9.00	48	1.38	--	--	50	--	--	--	--	--
Uintah	179	8.10	66	1.91	--	--	--	--	--	--	--	--
REGIONAL TOTALS	187	5.10	61	1.77	1.25	--	50	--	--	--	--	--
Southeastern Region												
Carbon	--	--	--	--	--	--	--	--	--	--	--	--
Emery	--	--	--	--	--	--	--	--	--	--	--	--
Grand	--	--	--	--	--	--	--	--	--	--	--	--
San Juan	--	--	--	--	--	--	--	--	--	--	--	--
REGIONAL TOTALS	--	--	--	--	--	--	--	--	--	--	--	--
STATE TOTALS	143	5.19	29	1.26	1.25	--	50	--	--	--	--	--

SNOWSHOE HARE

Harvest

Results of the 1995 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. Trend in statewide harvest statistics by year are shown in Table 15 and Figures 1 and 2. The 1995 season compared to 1994 and the 20-year average follow:

	<u>1995</u>	<u>Percent change from 1994</u>	<u>Percent change from Average</u>
Snowshoe hare hunters	1,983	+27	-58
Snowshoe hares harvested	1,924	+12	-80
Hunter-days afield	7,891	+60	-44
Snowshoes per hunter-day	0.24	-31	-61
Snowshoes per hunter	0.97	-12	-48

Ninety percent confidence interval for overall snowshoe hare harvest is +/- 1,063.75. Standard deviation is 0.902119.

Significant misidentification of white-tailed 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. Several attempts were made in the 1970s to reduce misidentification through pictures and descriptions in leaflets and questionnaires.

Beginning in 1988, harvest questionnaires, and in 1989 the Upland Game Proclamation had drawings and descriptions of the various rabbits and hares in an attempt to reduce misidentification. We believe this has been successful.

Results of the 1995 harvest questionnaire indicates a 12 percent increase in hunter success compared to 1994. Success was well below the long-term average.

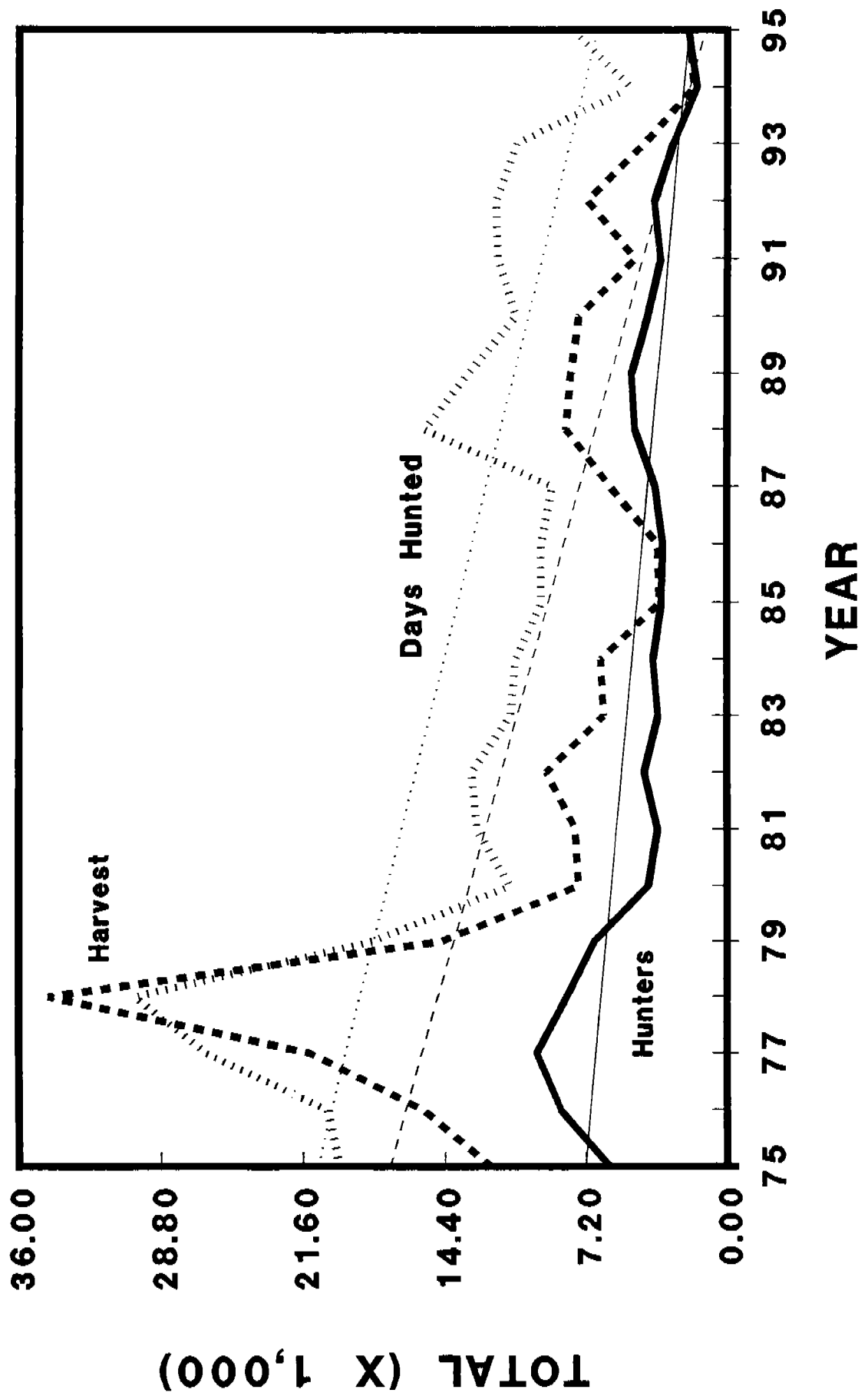


Figure 1. Statewide trends of snowshoe hare harvest statistics, 1975-95.

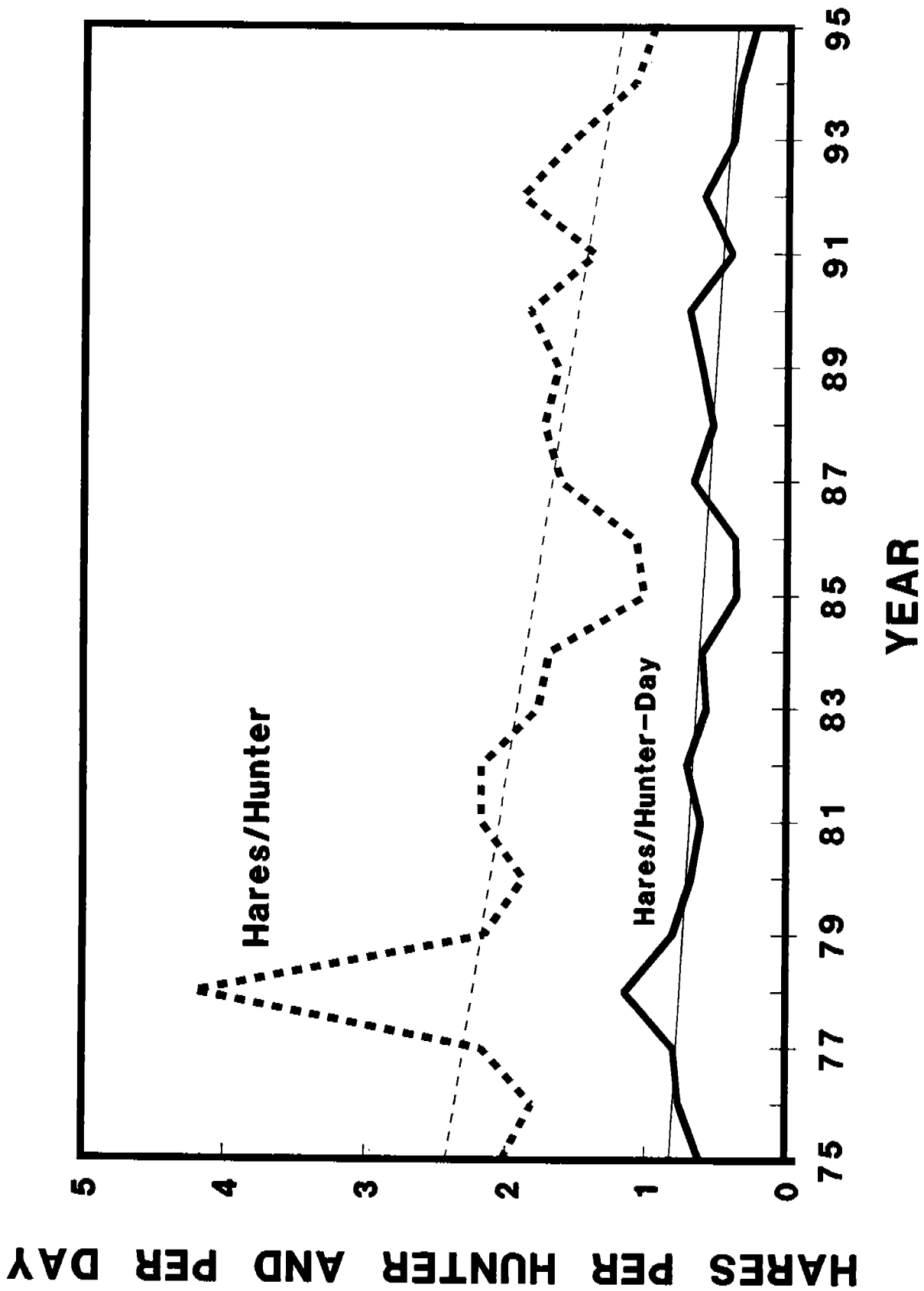


Figure 2. Statewide trends of snowshoe hare hunter success rates, 1975-95.

Table 11. Summary of snowshoe hare hunter success and distribution of harvest and hunting pressure by region and county, 1995.

REGION AND COUNTY	SAMPLE SIZE*	HUNTER-DAYS AFIELD	SNOWSHOE BAGGED	SNOWSHOE HUNTER-DAY	% OF PRESSURE	% OF HARVEST
NORTHERN REGION						
BOX ELDER	15	680	97	0.14	8.62	5.05
CACHE	6	369	38	0.11	4.68	2.02
DAVIS	3	97	58	0.60	1.23	3.03
MORGAN	1	19	0	0.00	0.25	0.00
RICH	9	272	58	0.21	3.45	3.03
SUMMIT	4	252	58	0.23	3.20	3.03
WEBER	5	641	583	0.91	8.13	30.31
REGIONAL TOTALS	43	2,332	894	0.38	29.56	46.47
CENTRAL REGION						
JUAB	4	505	77	0.15	6.40	4.04
SALT LAKE	3	97	0	0.00	1.23	0.00
SANPETE	11	583	291	0.50	7.39	15.15
TOOELE	11	622	233	0.38	7.88	12.12
UTAH	12	1,146	116	0.10	14.53	6.06
WASATCH	4	505	19	0.04	6.40	1.01
REGIONAL TOTALS	45	3,460	738	0.21	43.85	38.39
SOUTHERN REGION						
BEAVER	2	427	19	0.05	5.42	1.01
GARFIELD	0	0	0	0.00	0.00	0.00
IRON	0	0	0	0.00	0.00	0.00
KANE	1	58	0	0.00	0.74	0.00
MILLARD	3	38	0	0.00	0.49	0.00
PIUTE	1	0	0	0.00	0.00	0.00
SEVIER	3	291	0	0.00	3.70	0.00
WASHINGTON	0	0	0	0.00	0.00	0.00
WAYNE	2	77	0	0.00	0.99	0.00
REGIONAL TOTALS	12	894	19	0.02	11.33	1.01
NORTHEASTERN REGION						
DAGGETT	0	0	0	0.00	0.00	0.00
DUCHESNE	7	485	58	0.12	6.16	3.03
UINTAH	7	583	194	0.33	7.39	10.10
REGIONAL TOTALS	14	1,069	252	0.24	13.55	13.13
SOUTHEASTERN REGION						
CARBON	0	0	0	0.00	0.00	0.00
EMERY	3	58	19	0.33	0.74	1.01
GRAND	2	38	0	0.00	0.49	0.00
SAN JUAN	0	0	0	0.00	0.00	0.00
REGIONAL TOTALS	5	97	19	0.20	1.23	1.01
UNKNOWN	3	38	0	0.00	0.49	0.00
STATE TOTALS	122	7,891	1,924	0.24	100.00	100.00

*Total hunter trips from questionnaire returns.

Table 12. Summary of snowshoe hare bagged per hunter-day by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	0.78	0.33	0.54	0.38	0.52	0.45	0.82	0.14
Cache	0.21	1.10	0.56	0.30	0.26	0.42	1.30	0.11
Davis	0.40	1.50	0.00	0.03	0.00	0.00	0.00	0.60
Morgan	0.67	0.36	0.80	2.17	0.15	0.00	0.47	0.00
Rich	0.33	0.51	0.76	1.31	1.15	0.38	1.21	0.21
Summit	0.36	0.73	1.05	0.24	0.62	0.18	0.39	0.23
Weber	0.25	0.50	0.25	0.25	1.00	1.12	0.28	0.91
REGIONAL TOTALS	0.40	0.63	0.70	0.49	0.54	0.48	0.77	0.38
Central Region								
Juab	0.17	0.00	0.53	0.50	0.38	0.00	0.64	0.15
Salt Lake	0.48	0.38	0.00	0.22	0.08	0.00	2.00	0.00
Sanpete	0.68	0.64	1.08	0.78	0.43	0.67	1.02	0.50
Tooele	0.28	0.77	0.32	0.35	0.58	0.25	0.70	0.38
Utah	0.44	0.37	0.51	0.71	0.79	0.08	0.46	0.10
Wasatch	0.77	1.00	0.17	0.22	0.48	8.67	1.57	0.04
REGIONAL TOTALS	0.50	0.65	0.55	0.45	0.55	0.44	0.67	0.21
Southern Region								
Beaver	0.00	0.00	0.50	0.00	0.00	0.00	1.50	0.05
Garfield	0.00	0.35	0.67	1.00	0.00	0.00	1.04	0.00
Iron	0.00	0.00	0.00	0.00	0.67	0.00	1.05	0.00
Kane	0.00	0.00	0.00	0.00	0.20	0.00	0.91	0.00
Millard	1.20	1.00	0.00	0.00	0.15	0.32	0.69	0.00
Piute	3.00	0.64	0.43	0.00	1.50	0.00	0.33	0.00
Sevier	0.75	0.55	0.96	0.61	0.78	0.44	0.67	0.00
Washington	2.00	0.00	0.00	0.00	0.00	0.00	1.01	0.00
Wayne	0.00	0.50	0.39	0.44	1.25	0.25	1.06	0.00
REGIONAL TOTALS	0.47	0.50	0.62	0.56	0.70	0.30	0.93	0.02
Northeastern Region								
Daggett	1.96	1.00	0.50	0.14	1.00	0.43	1.52	0.00
Duchesne	0.63	0.54	1.33	0.18	0.23	0.22	1.43	0.12
Uintah	0.89	0.23	0.88	0.14	1.62	0.15	1.55	0.33
REGIONAL TOTALS	1.02	0.40	1.17	0.17	0.79	0.23	1.51	0.24
Southeastern Region								
Carbon	0.46	1.00	0.71	0.21	0.63	0.29	0.89	0.00
Emery	0.94	0.54	0.37	0.45	0.33	0.60	0.90	0.33
Grand	0.00	0.00	2.00	0.00	0.00	0.00	1.21	0.00
San Juan	1.00	1.67	0.00	0.00	1.00	0.00	0.97	0.00
REGIONAL TOTALS	0.83	0.77	0.56	0.30	0.46	0.37	0.94	0.20
Unknown counties	0.42	0.00	0.00	0.00	0.00	3.60	0.00	0.00
STATE TOTALS	0.53	0.61	0.70	0.40	0.60	0.39	0.35	0.24

Table 13. Percentage distribution of snowshoe hare harvest by region and county, 1988-95.

Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	3.11	10.57	6.62	14.43	10.76	9.55	35.73	5.05
Cache	11.40	5.15	4.78	2.49	4.93	1.09	0.00	2.02
Davis	0.78	0.00	0.37	0.00	0.00	0.33	0.00	3.03
Morgan	1.04	1.08	4.78	0.50	0.00	1.06	3.06	0.00
Rich	7.77	14.09	20.22	5.72	1.35	0.63	4.08	3.03
Summit	4.15	11.11	4.41	6.47	1.35	0.93	0.00	3.03
Weber	1.30	0.27	1.84	0.50	8.52	1.06	0.00	30.31
REGIONAL TOTALS	29.54	42.28	43.02	30.10	26.91	14.64	42.88	46.47
Central Region								
Juab	0.00	2.71	1.47	3.23	0.00	5.72	1.02	4.04
Salt Lake	0.78	0.00	0.74	0.25	0.00	0.13	0.00	0.00
Sanpete	9.33	7.05	11.40	2.49	1.79	3.57	10.21	15.15
Tooele	8.55	3.25	8.83	7.21	8.07	13.39	2.04	12.12
Utah	3.89	4.88	5.52	11.44	2.24	8.50	9.19	6.06
Wasatch	6.22	0.27	3.68	2.99	23.32	0.23	4.08	1.01
REGIONAL TOTALS	28.76	18.16	31.62	27.61	35.43	31.54	26.54	38.39
Southern Region								
Beaver	0.00	0.27	0.00	0.00	0.00	2.31	0.00	1.01
Garfield	1.81	1.08	1.10	0.00	0.00	0.86	1.02	0.00
Iron	0.00	0.00	0.00	0.50	0.00	2.02	0.00	0.00
Kane	0.00	0.00	0.00	0.25	0.00	1.45	0.00	0.00
Millard	1.55	0.00	0.00	1.24	4.48	4.86	0.00	0.00
Piute	1.81	0.81	0.00	0.00	0.00	0.30	0.00	0.00
Sevier	2.85	7.05	10.30	5.22	3.14	2.98	5.10	0.00
Washington	0.00	0.00	0.00	0.00	0.00	5.49	1.02	0.00
Wayne	4.66	3.25	1.47	9.95	1.79	1.09	6.13	0.00
REGIONAL TOTALS	2.69	12.47	12.87	17.91	9.42	21.36	13.27	1.01
Northeastern Region								
Daggett	0.26	0.54	1.10	1.00	5.83	0.69	0.00	0.00
Duchesne	6.74	16.26	6.25	3.73	6.28	3.64	2.04	3.03
Uintah	2.33	3.79	1.84	16.92	4.93	6.64	4.08	10.10
REGIONAL TOTALS	9.33	20.60	9.19	21.64	17.04	10.98	6.13	13.13
Southeastern Region								
Carbon	10.88	2.71	1.47	1.24	1.79	10.28	11.23	0.00
Emery	7.51	2.71	1.84	1.24	1.35	4.13	0.00	1.01
Grand	0.00	1.08	0.00	0.00	0.00	1.92	0.00	0.00
San Juan	1.30	0.00	0.00	0.25	0.00	5.06	0.00	0.00
REGIONAL TOTALS	19.69	6.50	3.31	2.74	3.14	21.39	11.23	1.01
Unknown counties	0.00	0.00	0.00	0.00	8.07	0.10	0.00	0.00
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 14. Percentage distribution of snowshoe hare hunting pressure by region and county, 1988-95.

*Region and County	Year							
	1988	1989	1990	1991	1992	1993	1994	1995
Northern Region								
Box Elder	10.16	5.64	13.69	7.11	16.67	9.35	31.07	8.62
Cache	12.64	6.27	6.46	6.37	5.71	4.59	0.36	4.68
Davis	1.62	0.31	0.19	4.59	0.00	0.35	0.71	1.23
Morgan	0.32	1.72	0.95	0.89	1.95	0.53	3.21	0.25
Rich	5.18	9.25	12.93	6.22	3.00	1.41	2.50	3.45
Summit	9.08	3.45	7.41	7.41	6.31	3.00	2.14	3.20
Weber	3.89	1.57	0.76	2.96	0.30	3.00	0.36	8.13
REGIONAL TOTALS	42.91	28.21	42.40	35.56	33.93	22.22	40.36	29.56
Central Region								
Juab	2.59	0.00	3.61	1.19	5.11	0.18	2.86	6.40
Salt Lake	2.70	1.25	0.00	1.33	1.95	5.47	0.00	1.23
Sanpete	8.00	8.78	4.56	5.93	3.45	1.06	4.29	7.39
Tooele	6.27	6.74	7.03	10.22	7.51	12.52	5.36	7.88
Utah	8.43	6.43	6.65	3.11	8.71	11.29	9.64	14.53
Wasatch	5.72	3.76	1.14	6.67	3.75	1.06	3.21	6.40
REGIONAL TOTALS	33.72	26.96	23.00	28.45	30.48	31.57	25.63	43.85
Southern Region								
Beaver	1.83	0.63	0.38	0.30	0.00	0.00	0.00	5.42
Garfield	0.10	3.13	1.14	0.44	0.00	1.23	1.79	0.00
Iron	0.00	0.00	0.00	0.00	0.45	0.00	0.71	0.00
Kane	0.00	0.00	0.00	0.15	0.75	0.00	0.00	0.74
Millard	0.54	0.94	0.19	0.00	5.11	5.47	0.36	0.49
Piute	0.21	1.72	1.33	0.30	0.30	0.00	0.00	0.00
Sevier	1.29	3.13	5.13	6.82	4.05	2.82	4.29	3.70
Washington	0.10	0.16	0.00	0.00	0.00	0.00	3.57	0.00
Wayne	1.18	5.64	5.89	1.33	4.80	2.82	3.57	0.99
REGIONAL TOTALS	5.29	15.36	14.07	9.33	15.47	12.35	14.29	11.33
Northeastern Region								
Daggett	2.59	0.16	0.76	3.26	0.60	5.29	0.00	0.00
Duchesne	5.29	7.52	8.56	13.78	9.61	11.29	4.29	6.16
Uintah	3.02	6.27	3.04	5.19	6.31	13.05	2.50	7.39
REGIONAL TOTALS	10.91	13.95	12.36	22.22	16.52	29.63	6.79	13.55
Southeastern Region								
Carbon	1.40	6.58	2.66	2.81	1.20	2.47	11.79	0.00
Emery	3.67	8.46	5.13	1.63	2.25	0.88	1.43	0.74
Grand	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.49
San Juan	0.75	0.47	0.00	0.00	0.15	0.00	0.00	0.00
REGIONAL TOTALS	5.83	5.52	8.17	4.44	3.60	3.35	13.21	1.23
Unknown counties	1.29	0.00	0.00	0.00	0.00	0.88	0.00	0.49
STATE TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 15. Statewide summary of snowshoe hare harvest statistics, 1975-95.

Year	Total Hunters	Total Harvest	Hunter-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
1983	3,544	6,302	11,088	0.57	1.78
1984	3,796	6,455	10,840	0.60	1.70
1985	3,365	3,429	9,494	0.36	1.02
1986	3,277	3,544	9,541	0.37	1.08
1987	3,702	6,005	8,947	0.67	1.62
1988	4,725	8,231	15,444	0.53	1.74
1989	4,895	8,006	13,233	0.61	1.64
1990	4,095	7,593	10,825	0.70	1.85
1991	3,427	4,731	11,742	0.40	1.38
1992	3,732	7,144	11,836	0.60	1.91
1993	2,755	4,237	10,774	0.39	1.54
1994	1,565	1,722	4,922	0.35	1.10
1995	1,983	1,924	7,891	0.24	0.97
Totals (1975-95)	95,915	191,913	288,514	—	—
Averages (1975-94)	4,697	9,499	14,031	0.61	1.85



APPENDICES

APPENDIX A

WEATHER CONDITIONS

Weather information used in this report (Tables 1 & 2 and Figures 1 & 2) is from the office of the Utah State Climatologist and N.O.A.A. Climatological Data Periodical.

The 1994-95 winter weather was fairly mild in terms of precipitation and in terms of cold temperature. Above average precipitation fell in October and November 1994 and in January, 1995. In December 1994 and January 1995 temperatures were above average.

In the spring of 1995, March-June precipitation was above normal. July through August, 1995 precipitation was below normal. Temperatures were below normal April through July, 1995.

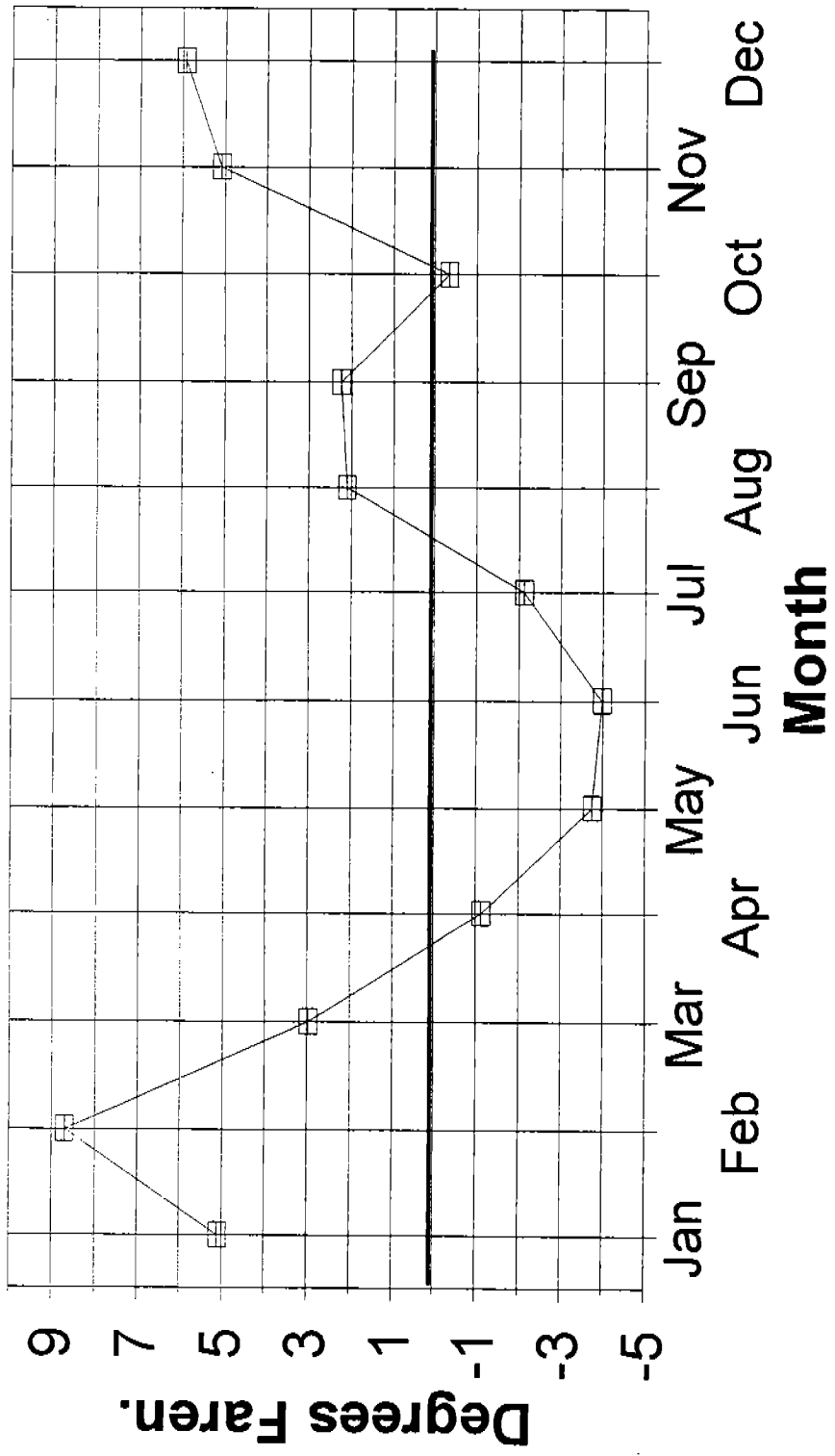
Table 1. Comparison of 1995 monthly average temperatures (F) to the normal for each weather division and statewide.

Weather Division	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
No.1 Western													
Normal	26.0	32.5	39.6	47.3	56.5	66.0	74.3	72.1	62.0	50.1	37.6	27.4	49.3
1995	31.9	39.7	42.0	46.6	53.0	61.2	71.8	73.1	63.7	48.6	42.4	31.7	50.5
Departure (degrees)	5.9	7.2	2.4	-0.7	-3.5	-4.8	-2.5	1.0	1.7	-1.5	4.8	4.3	1.2
No.2 Dixie													
Normal	38.8	44.1	49.2	56.6	65.7	75.6	81.7	79.4	71.9	60.9	48.0	39.5	59.3
1995	41.6	52.1	50.8	55.1	62.6	71.7	81.1	82.5	75.1	62.8	53.8	44.3	61.1
Departure (degrees)	2.8	8.0	1.6	-1.5	-3.1	-3.9	-0.6	3.1	3.2	1.9	5.8	4.8	1.8
No.3 North Central													
Normal	25.8	31.3	39.3	47.7	56.9	66.2	74.4	72.3	62.4	50.9	38.3	27.8	49.5
1995	32.0	40.7	42.5	47.0	53.5	62.3	72.3	74.3	65.1	50.0	44.2	35.0	51.6
Departure (degrees)	6.2	9.4	3.2	-0.7	-3.4	-3.9	-2.1	2.0	2.7	-0.9	5.9	7.2	2.1
No.4 South Central													
Normal	26.5	31.6	37.6	45.1	54.0	63.4	70.4	68.2	59.9	49.3	37.3	28.1	47.6
1995	29.6	40.0	39.6	43.3	49.5	58.2	67.9	70.0	62.0	49.5	42.4	32.6	48.7
Departure (degrees)	3.1	8.4	2.0	-1.8	-4.5	-5.2	-2.5	1.8	2.1	0.2	5.1	4.5	1.1
No.5 Northern Mountains													
Normal	20.9	24.7	31.7	40.6	49.6	58.2	65.6	63.6	54.9	44.7	32.5	22.8	42.5
1995	24.3	32.7	35.4	40.6	46.4	55.6	63.3	66.1	57.8	44.3	38.9	30.1	44.6
Departure (degrees)	3.4	8.0	3.7	0.0	-3.2	-2.6	-2.3	2.5	2.9	-0.4	6.4	7.3	2.1
No.6 Uintah Basin													
Normal	16.7	24.0	36.3	46.8	56.2	65.3	72.2	69.8	60.2	48.3	34.0	20.5	45.8
1995	25.9	35.6	41.2	45.3	51.9	61.7	69.4	71.4	61.8	47.1	38.1	29.1	48.2
Departure (degrees)	9.2	11.6	4.9	-1.5	-4.3	-3.6	-2.8	1.6	1.6	-1.2	4.1	8.6	2.4
No.7 Southeast													
Normal	26.9	34.2	41.9	50.5	60.0	70.1	76.7	74.2	65.2	53.4	40.2	29.5	51.9
1995	32.0	42.5	44.9	48.8	55.7	66.2	74.6	76.9	66.7	53.0	43.6	34.3	53.3
Departure (degrees)	5.1	8.3	3.0	-1.7	-4.3	-3.9	-2.1	2.7	1.5	-0.4	3.4	4.8	1.4
STATE AVERAGES													
Normal	25.9	31.8	39.4	47.8	57.0	66.4	73.6	71.4	62.4	51.1	38.3	27.9	49.4
1995	31.0	40.5	42.3	46.7	53.2	62.4	71.5	73.5	64.6	50.8	43.3	33.9	51.1
Departure (degrees)	5.1	8.7	3.0	-1.1	-3.8	-4.0	-2.1	2.1	2.2	-0.3	5.1	5.9	1.7

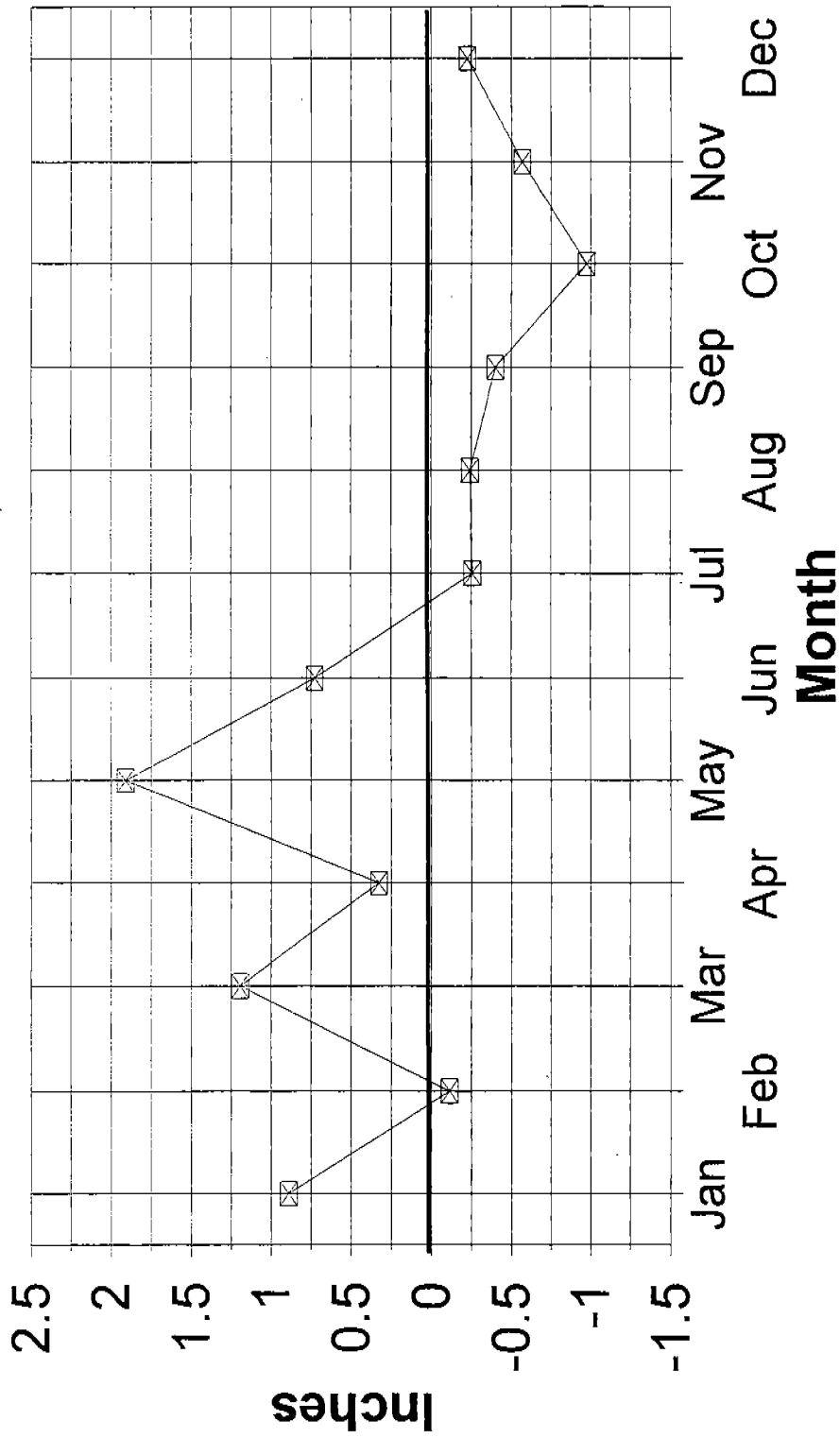
Table 2. Comparison of 1995 monthly average precipitation to the normal for each weather division and statewide.

Weather Division	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
No.1 Western													
Normal	0.53	0.58	0.85	0.89	0.98	0.71	0.73	0.83	0.79	0.81	0.68	0.58	8.96
1995	0.84	0.45	1.37	1.22	2.67	1.95	0.33	0.47	0.30	0.04	0.15	0.52	10.31
Departure (inches)	0.31	-0.13	0.52	0.33	1.69	1.24	-0.40	-0.36	-0.49	-0.77	-0.53	-0.06	1.35
No.2 Dixie													
Normal	1.32	1.29	1.67	0.90	0.63	0.31	0.90	1.19	0.86	0.78	1.19	1.01	12.05
1995	3.82	1.26	5.01	1.43	1.52	0.95	0.07	0.80	0.64	0.00	0.82	0.41	16.73
Departure (inches)	2.50	-0.03	3.34	0.53	0.89	0.64	-0.83	-0.39	-0.22	-0.78	-0.37	-0.60	4.68
No.3 North Central													
Normal	1.34	1.39	1.77	1.94	1.84	1.21	0.85	0.99	1.43	1.64	1.53	1.49	17.42
1995	2.55	1.24	3.35	1.99	4.91	2.22	0.85	0.5	0.85	0.47	0.85	1.76	21.54
Departure (inches)	1.21	-0.15	1.58	0.05	3.07	1.01	0.00	-0.49	-0.58	-1.17	-0.68	0.27	4.12
No.4 South Central													
Normal	0.98	1.01	1.37	1.07	0.98	0.60	1.07	1.38	1.18	1.05	1.07	1.02	12.78
1995	2.11	0.92	2.55	1.92	2.49	1.32	0.55	0.96	0.66	0.02	0.32	0.83	14.65
Departure (inches)	1.13	-0.09	1.18	0.85	1.51	0.72	-0.52	-0.42	-0.52	-1.03	-0.75	-0.19	1.87
No.5 Northern Mountains													
Normal	1.83	1.78	1.93	1.95	1.68	1.19	1.04	1.19	1.52	1.69	1.83	1.92	19.55
1995	2.57	1.57	3.24	1.71	4.49	2.04	1.34	0.82	1.07	0.67	1.28	2.00	22.80
Departure (inches)	0.74	-0.21	1.31	-0.24	2.81	0.85	0.30	-0.37	-0.45	-1.02	-0.55	0.08	3.25
No.6 Uintah Basin													
Normal	0.48	0.46	0.63	0.73	0.86	0.71	0.71	0.73	0.88	0.96	0.56	0.60	8.31
1995	0.38	0.46	0.22	1.05	2.92	0.91	0.63	0.92	0.63	0.06	0.10	0.09	8.37
Departure (inches)	-0.10	0.00	-0.41	0.32	2.06	0.20	-0.08	0.19	-0.25	-0.90	-0.46	-0.51	0.06
No.7 Southeast													
Normal	0.68	0.59	0.81	0.66	0.67	0.46	0.97	1.05	0.98	1.13	0.80	0.73	9.53
1995	1.12	0.42	1.64	1.12	2.01	0.89	0.70	1.22	0.67	0.01	0.17	0.18	10.15
Departure (inches)	0.44	-0.17	0.83	0.46	1.34	0.43	-0.27	0.17	-0.31	-1.12	-0.63	-0.55	0.62
STATE AVERAGES													
Normal	1.02	1.01	1.29	1.16	1.09	0.74	0.90	1.05	1.09	1.15	1.09	1.05	12.66
1995	1.91	0.90	2.48	1.49	3.00	1.47	0.64	0.81	0.69	0.18	0.53	0.83	14.94
Departure (inches)	0.89	-0.11	1.19	0.33	1.91	0.73	-0.26	-0.24	-0.40	-0.97	-0.57	-0.22	2.28

**Figure 1. Temperture Departure
from Normal, (degrees F) 1995**



**Figure 2. Precipitation Departure
from Normal in inches, 1995**



APPENDIX B

LICENSE SALES

Small game license sales by type and cost are listed in Table 1. The number of licenses sold for all types, except non resident small game and combination licenses, decreased slightly in 1995.

The proportion of Utah's population hunting small game is declining (Table 2). In the early 1970s about 10 percent of Utah's population was hunting small game. In 1995, only 4.0 percent of Utah's population hunted small game.

Table 3 identifies revenue generated to the Utah Division of Wildlife Resources from small game license sales. Small game program budgets run about half the revenue generated, with the other half going to support services such as law enforcement, administration, accounting, and public services.

Table 1. Statewide small game license sales information, 1954-95.

Year	Adult Res. Small Game		Juv. Res. Small Game		Non Res. Small Game		Combination License	
	Issued	Cost	Issued	Cost	Issued	Cost	Issued	Cost
1954	12,990	\$3.50	5,170	\$2.00	561	\$15.00	79,574	\$6.00
1955	12,086	\$3.50	5,369	\$2.00	478	\$15.00	79,960	\$6.00
1956	12,102	\$3.50	5,735	\$2.00	524	\$15.00	80,968	\$6.00
1957	12,239	\$3.50	6,192	\$2.00	505	\$15.00	81,271	\$6.00
1958	14,290	\$3.50	6,563	\$2.00	696	\$15.00	85,198	\$6.00
1959	13,421	\$3.50	5,966	\$2.00	669	\$15.00	90,069	\$6.00
1960	12,020	\$3.50	5,022	\$2.00	576	\$15.00	90,085	\$6.00
1961	12,177	\$3.50	6,108	\$2.00	617	\$15.00	88,180	\$6.00
1962	12,953	\$3.50	6,536	\$2.00	607	\$15.00	91,412	\$6.00
1963	13,365	\$3.50	6,319	\$2.00	642	\$15.00	94,768	\$6.00
1964	13,073	\$3.50	6,453	\$2.00	681	\$15.00	98,556	\$6.00
1965	12,913	\$3.50	6,755	\$2.00	716	\$15.00	100,410	\$6.00
1966	13,854	\$3.50	7,477	\$2.00	725	\$15.00	103,849	\$6.00
1967	18,588	\$4.50	12,851	\$2.50	652	\$20.00	86,218	\$10.00
1968	20,647	\$4.50	15,205	\$2.50	703	\$20.00	91,020	\$10.00
1969	20,221	\$4.50	15,567	\$2.50	853	\$20.00	96,117	\$10.00
1970	19,564	\$4.50	15,827	\$2.50	1,009	\$20.00	100,467	\$10.00
1971	20,681	\$4.50	16,044	\$2.50	1,000	\$20.00	102,284	\$10.00
1972	19,796	\$4.50	16,523	\$2.50	1,075	\$20.00	107,414	\$10.00
1973	18,836	\$4.50	16,522	\$2.50	964	\$20.00	155,436	\$10.00
1974	17,434	\$4.50	16,334	\$2.50	974	\$20.00	117,770	\$10.00
1975	17,057	\$4.50	15,869	\$2.50	967	\$20.00	115,362	\$10.00
1976	33,078	\$6.00	16,261	\$3.00	1,141	\$20.00	76,587	\$18.00
1977	36,473	\$6.00	15,795	\$3.00	1,270	\$20.00	74,600	\$18.00
1978	37,082	\$6.00	15,419	\$3.00	1,449	\$20.00	81,227	\$18.00
1979	36,721	\$6.00	14,200	\$3.00	1,575	\$20.00	84,450	\$18.00
1980	30,189	\$8.00	14,042	\$4.00	1,330	\$30.00	100,177	\$23.00
1981	37,804	\$8.00	13,874	\$4.00	1,559	\$30.00	83,486	\$23.00
1982	36,850	\$8.00	14,040	\$4.00	1,637	\$30.00	82,970	\$23.00
1983	39,602	\$8.00	13,814	\$4.00	1,685	\$30.00	73,529	\$23.00
1984	36,070	\$8.00	13,170	\$4.00	1,633	\$30.00	73,081	\$23.00
1985	30,102	\$12.00	12,987	\$6.00	1,500	\$40.00	82,137	\$35.00
1986	29,202	\$12.00	11,921	\$6.00	1,274	\$40.00	67,187	\$35.00
1987	26,781	\$12.00	11,228	\$6.00	1,235	\$40.00	66,715	\$35.00
1988	25,733	\$12.00	9,498	\$6.00	1,428	\$40.00	72,846	\$35.00
1989	25,845	\$12.00	5,769	\$6.00	1,422	\$40.00	74,274	\$35.00
1990	24,527	\$12.00	5,682	\$6.00	1,279	\$40.00	76,292	\$35.00
1991	23,276	\$12.00	5,626	\$6.00	1,212	\$40.00	79,165	\$35.00
1992	21,852	\$12.00	5,431	\$6.00	1,195	\$40.00	78,940	\$35.00
1993	20,899	\$12.00	4,887	\$6.00	1,150	\$40.00	78,030	\$25.00
1994	25,792	\$12.00	4,551	\$6.00	1,223	\$40.00	59,854	\$25.00
1995	24,219	\$12.00	4,403	\$6.00	1,379	\$40.00	66,607	\$25.00

Table 2. Actual (1971-1995) proportion of Utah population hunting small game.

Year	Utah Population	Resident Small Game Licenses Sold 1	Proportion Hunting Small Game
1971	1,101,000	101,421	9.2
1972	1,135,000	110,691	9.8
1973	1,169,000	115,129	9.8
1974	1,197,000	112,963	9.4
1975	1,234,000	108,636	8.8
1976	1,272,000	85,268	6.7
1977	1,316,000	86,549	6.6
1978	1,364,000	95,637	7.0
1979	1,416,000	100,116	7.1
1980	1,461,037	110,039	7.5
1981	1,524,830	103,041	6.8
1982	1,588,622	99,744	6.3
1983	1,652,415	93,303	5.6
1984	1,716,207	88,084	5.1
1985	1,780,000	94,991	5.3
1986a	1,665,000	82,777	5.0
1987a	1,678,000	85,099	5.1
1988	1,695,000	92,677	5.5
1989a	1,715,000	92,031	5.4
1990a	1,722,850	90,532	5.3
1991a	1,774,241	89,297	5.0
1992a	1,820,453	91,422	5.0
1993a	1,866,000	88,593	4.7
1994a	1,916,000	74,658	3.9
1995a	1,959,000	77,452	4.0

1 Adjusted for waterfowl hunters subtracted from combination licenses,
R.S.G. = Adjusted combination plus juvenile small game plus adult small game.

a Utah Population Estimate Committee Report for July 1
(Office of State Planning Coordinator)

Table 3. Small game license sales and income, 1971-95 (JSG=juvenile small game, RSG=adult resident small game, CMB=combination license, NRSG=nonresident small game).

Year	License Fees			Number of Licenses Sold			No. Federal Duck Stamps Sold(3)		Total Gross Revenues Attributed to Small Game				
	JSG	RSG	CMB	JSG(4)	RSG	CMB	NRSG	Sold(3)	JSG(4)	RSG	CMB(2)	NRSG	TOTAL(1)
1971	2.50	4.50	10.00	16,044	20,681	102,284	1,000	37,588	20,055	93,064	200,557	20,000	313,676
1972	2.50	4.50	10.00	16,523	19,796	107,414	4,075	33,042	20,653	89,082	230,553	21,500	340,288
1973	2.50	4.50	10.00	16,522	18,836	115,436	964	35,665	20,652	84,762	247,290	19,280	352,704
1974	2.50	4.50	10.00	16,334	17,434	117,770	974	38,575	20,417	78,453	245,504	19,480	344,374
1975	2.50	4.50	10.00	15,869	17,057	115,362	967	39,652	19,836	76,756	234,701	19,340	330,993
1976	3.00	6.00	18.00	16,261	33,078	76,587	1,141	40,658	24,391	198,468	184,675	22,620	407,534
1977	3.00	6.00	18.00	15,795	36,473	74,600	1,270	40,319	23,692	218,838	176,204	25,400	418,734
1978	3.00	6.00	18.00	15,419	37,082	81,227	1,449	38,091	23,128	222,492	221,719	28,980	467,339
1979	3.00	6.00	18.00	14,200	36,721	84,450	1,575	35,255	21,300	220,326	252,862	31,500	494,488
1980	4.00	8.00	23.00	14,042	30,189	100,177	1,330	34,369	28,084	241,512	425,120	39,900	694,716
1981	4.00	8.00	23.00	13,874	37,804	83,486	1,559	32,123	27,748	302,432	331,805	46,770	661,985
1982	4.00	8.00	23.00	13,040	36,850	82,970	1,637	34,116	28,080	294,800	315,597	49,110	638,477
1983	4.00	8.00	23.00	13,814	39,602	73,529	1,685	33,642	25,620	305,249	257,670	50,134	588,539
1984	4.00	8.00	23.00	13,170	36,070	73,081	1,633	34,237	26,340	288,560	250,544	48,990	565,444
1985	6.00	12.00	35.00	12,987	30,102	82,137	1,500	30,235	38,961	361,224	484,246	60,000	884,431
1986	6.00	12.00	35.00	11,946	39,567	67,435	1,274	25,533	35,838	354,804	395,973	50,960	786,615
1987	6.00	12.00	35.00	11,228	26,781	66,715	1,235	19,625	33,684	321,372	439,350	49,400	794,406
1988	6.00	12.00	35.00	9,498	25,733	72,846	1,428	15,400	28,494	308,796	535,971	57,120	873,261
1989	6.00	12.00	35.00	5,769	25,845	74,274	1,422	13,857	17,307	310,140	563,691	56,880	891,138
1990	6.00	12.00	35.00	5,682	24,527	76,292	1,279	15,969	17,046	294,324	543,986	51,160	855,356
1991	6.00	12.00	35.00	5,626	23,276	79,165	1,212	18,770	16,878	279,312	563,485	48,480	859,675
1992	6.00	12.00	35.00	5,431	21,852	78,940	1,195	14,801	16,293	282,224	598,417	47,800	924,734
1993	6.00	12.00	25.00	4,887	20,899	78,030	1,150	15,223	14,661	250,788	585,989	46,000	897,438
1994	6.00	12.00	25.00	4,551	25,792	59,854	1,223	15,539	13,653	309,504	413,459	48,920	785,536
1995	6.00	12.00	25.00	4,403	24,219	66,607	1,379	17,777	13,209	290,628	455,584	55,160	814,581

1 Value does not include cougar, bear, band-tailed pigeon and wild turkey permits, Upland Game Habitat Stamp fees or commercial hunting area licenses. It does not include NRSG revenue--this is assumed to be primarily non-resident bear and cougar hunters.

2 Combination license values are based on the assumption that all waterfowl hunters purchased only combination licenses. They may fish and hunt big game but they do not hunt any other small game. Therefore, duck stamp sales are subtracted from combination license sales when projecting revenue generated. The proportion of the combination license fee attributed to small game equals the resident small game license fee divided by the resident fishing license, plus the resident big game license fee, plus the resident small game license fee or \$9.33 for 1994.

3 Total Federal duck stamps sold does not include those sold during the second quarter, April-June, because persons purchasing stamps during this quarter tend not to be hunters.

4 Half of the juvenile small game license sales were attributed to waterfowl hunters. Federal duck stamps are not required of juveniles less than 16 years of age.

APPENDIX C

Surveys

Regional and statewide summary of effort expended on upland game summer surveys, 1972-95.

Generally hours spent and miles driven on upland game surveys in Utah have declined since 1972. This is the result of competing uses of time for biologists and conservation officers. In addition, the restriction to a 40 hour work week by the Federal Fair Labor and Standards Act has further eroded survey effort. When effort and results have reached a lower critical sample size, surveys have been eliminated.

Table 1. Regional and statewide summary of effort expended on upland game summer inventory, 1972-95.

Species	REGION												STATE TOTALS				
	Northern			Central			Southern			Northeastern			Southeastern			Miles	Hours
	Miles	Hours	Miles	Miles	Hours	Hours	Miles	Hours	Hours	Miles	Hours	Hours	Miles	Hours	Miles	Hours	
Pheasant																	
1972	469	--	963	--	752	--	535	--	297	--	3,016	--					
1973	322	--	691	--	740	--	488	--	230	--	2,471	--					
1974	479	--	819	--	848	--	508	--	317	--	2,971	--					
1975	490	--	846	--	993	--	515	--	393	--	3,237	--					
1976	476	--	822	--	773	--	434	--	400	--	2,905	--					
1977	484	--	731	--	790	--	554	--	343	--	2,902	--					
1978	479	--	642	--	654	--	512	--	588	--	2,875	--					
1979	438	--	642	--	721	--	562	--	209	--	2,572	--					
1980	358	--	672	--	750	--	546	--	270	--	2,596	--					
1981	459	--	525	--	801	--	535	--	330	--	2,650	--					
1982	437	--	639	--	583	--	477	--	332	--	2,468	--					
1983	260	--	442	--	780	--	426	--	330	--	2,238	--					
1984	444	--	359	--	473	--	463	--	166	--	1,905	--					
1985	383	--	303	--	650	--	492	--	180	--	2,008	--					
1986	455	--	617	--	669	--	520	--	270	--	2,531	--					
1987	432	--	518	--	574	--	546	--	90	--	2,160	--					
1988	334	--	436	--	604	--	469	--	90	--	1,933	--					
1989	499	--	427	--	45	--	403	--	90	--	1,464	--					
1990	518	--	509	--	97	--	240	--	90	--	1,454	--					
1991	485	--	496	--	120	--	375	--	90	--	1,566	--					
1992	413	--	455	--	0	--	657	--	90	--	1,615	--					
1993	249	--	547	--	80	--	340	--	90	--	1,306	--					
1994	180	--	468	--	--	--	297	--	--	--	945	--					
1995	150	--	454	--	--	--	285	--	--	--	889	--					
Chukar																	
1972	712	91	1,423	131	950	37	1,012	69	984	58	5,081	386					
1973	1,063	119	1,494	167	72	10	705	48	702	68	4,036	412					
1974	125	31	1,591	107	564	43	440	30	1,115	67	3,835	278					
1975	188	30	808	85	892	41	908	88	786	55	3,582	299					
1976	875	75	964	110	465	32	727	67	687	66	3,718	350					
1977	405	50	1,198	120	601	37	600	71	429	44	3,233	322					
1978	359	28	459	42	135	14	315	23	536	52	1,804	159					
1979	546	54	793	76	415	22	293	23	267	14	2,314	189					
1980	283	68	1,668	124	235	12	0	53	0	10	2,239	214					
1981	330	56	591	49	147	11	245	21	260	32	1,880	169					
1982	473	34	571	56	475	35	260	37	101	9	1,880	171					
1983	17	15	190	17	20	2	488	44	103	7	818	85					
1984	654	81	303	32	--	--	--	--	118	16	1,075	129					
1985	236	73	453	36	--	--	--	--	174	12	863	121					
1986	394	65	432	37	--	--	--	--	--	--	961	116					
1987	813	119	398	36	0	3	305	32	175	23	1,691	213					
1988	379	35	457	49	60	7	--	--	180	14	1,076	105					
1989	105	17	505	30	11	8	--	--	144	12	765	67					
1990	--	21	1,190	77	--	--	85	8	235	20	1,510	126					
1991	0	0	311	18	0	0	0	0	225	11	536	29					
1992	178	27	270	12	0	0	0	0	216	24	664	63					
1993	--	--	--	--	--	--	--	--	300	22	300	22					
1994	--	--	--	--	--	--	--	--	70	6	70	6					
1995	--	--	--	--	--	--	--	--	--	--	--	--					

Table 1 (continued)

Species	REGION						STATE TOTALS		
	Northern	Central	Southern	Northeastern	Southeastern	Miles	Hours	Miles	Hours
Sage Grouse									
1972	1,628	1,187	143	144	2,125	170	1,280	141	6,971
1973	3,146	927	147	116	1,952	238	496	41	7,692
1974	2,026	1,551	115	193	2,964	248	887	124	9,309
1975	1,254	963	123	226	1,868	236	1,098	131	5,897
1976	1,965	281	121	183	1,881	227	1,222	161	5,873
1977	1,966	1,370	133	157	1,995	215	928	116	6,724
1978	1,408	541	124	152	1,616	226	879	97	4,934
1979	1,051	700	132	143	1,719	203	279	20	4,312
1980	1,003	806	150	94	1,471	184	278	60	4,076
1981	619	691	99	57	771	163	377	39	2,743
1982	1,669	762	92	83	862	116	--	--	3,747
1983	610	720	164	51	992	125	108	10	2,714
1984	1,411	283	82	54	530	95	151	17	2,664
1985	2,164	481	74	45	666	84	106	9	3,827
1986	1,024	281	39	43	948	94	146	14	2,568
1987	1,939	172	37	50	1,114	124	195	18	3,706
1988	2,092	678	108	66	690	91	--	--	3,775
1989	465	360	56	19	557	61	167	24	1,595
1990	175	444	89	42	244	30	70	7	1,023
1991	554	270	21	21	60	21	86	13	1,000
1992	--	96	44	50	193	18	204	23	758
1993	--	36	32	--	65	3	231	23	231
1994	58	155	18	--	135	10	65	8	413
1995	117	--	--	--	157	13	--	--	274
Forest Grouse									
1972	1,370	804	103	260	1,346	140	351	82	4,085
1973	627	917	105	429	949	147	761	72	3,550
1974	967	924	157	461	1,090	99	1,574	133	4,712
1975	1,194	1,287	160	629	1,474	136	1,476	135	6,206
1976	1,516	1,503	216	271	1,108	140	1,127	134	5,681
1977	737	1,317	162	286	1,040	135	1,079	128	4,783
1978	1,300	1,171	129	219	1,083	147	626	114	4,612
1979	746	1,312	177	275	729	107	435	42	3,936
1980	577	1,260	158	230	502	74	286	39	2,765
1981	688	958	147	295	835	120	184	29	3,240
1982	506	74	157	354	742	111	--	--	2,736
1983	1,049	1,180	93	80	636	93	--	20	3,324
1984	615	364	30	78	--	--	--	40	1,209
1985	858	436	52	90	--	--	--	40	1,858
1986	997	380	41	51	412	61	--	--	2,043
1987	1,148	305	77	65	438	58	--	--	2,091
1988	1,118	55	6	53	558	71	--	--	1,891
1989	795	635	69	3	573	75	286	33	2,334
1990	171	701	113	3	185	91	--	--	1,087
1991	--	536	54	2	0	0	--	2	566
1992	362	167	52	0	10	5	105	20	644
1993	290	--	28	--	41	3	243	45	574
1994	--	--	--	--	--	10	--	--	35
1995	--	--	--	--	25	7	--	--	25

Table 1 (continued)

Species	REGION												STATE TOTALS	
	Northern		Central		Southern		Northeastern		Southeastern		Miles		Hours	
	Miles	Hours	Miles	Hours	Miles	Hours	Miles	Hours	Miles	Hours	Miles	Hours	Miles	Hours
Quail	46	9	342	30	575	39	870	63	120	8	1,953	149		
1973	80	10	264	35	32	8	538	38	25	17	939	108		
1974	24	4	43	27	853	66	227	28	214	21	1,361	146		
1975	27	8	107	23	841	64	594	43	230	12	1,799	150		
1976	81	10	206	29	503	62	597	44	75	10	1,462	155		
1977	22	4	351	39	445	42	341	26	60	16	1,219	127		
1978	--	--	239	18	563	61	541	46	88	17	1,431	142		
1979	68	11	95	7	478	41	346	32	15	6	1,002	97		
1980	36	9	265	23	240	36	410	34	0	0	951	102		
1981	58	11	180	12	329	43	366	31	0	3	933	100		
1982	0	0	151	14	304	44	475	44	0	0	930	102		
1983	5	9	93	9	562	61	295	26	0	0	955	105		
1984	--	--	82	8	266	40	--	--	--	--	348	48		
1985	--	2	82	5	252	33	--	--	--	--	334	40		
1986	--	--	10	2	306	28	--	--	--	--	316	30		
1987	--	1	20	2	257	29	--	--	--	--	277	32		
1988	0	5	--	--	277	37	96	12	--	--	373	54		
1989	--	--	--	--	145	10	72	7	--	--	217	17		
1990	--	--	--	--	97	8	--	3	--	--	97	11		
1991	0	0	--	1	0	0	59	4	0	0	59	5		
1992	0	0	0	0	0	0	--	1	20	2	20	3		
1993	--	--	--	--	--	8	35	5	--	--	35	13		
1994	--	--	--	--	--	9	--	--	--	--	--	8		
1995	--	--	--	--	--	4	89	5	--	--	89	9		
Hungarian Partridge														
1972	1,255	126	--	--	--	--	--	--	--	--	21	126		
1973	1,643	156	12	4	--	--	--	--	--	--	1,655	160		
1974	1,035	176	14	2	--	--	--	--	--	--	1,049	178		
1975	344	64	0	0	--	--	--	--	--	--	344	64		
1976	940	83	113	21	--	--	--	--	--	--	1,053	104		
1977	1,145	156	125	5	--	--	--	--	--	--	1,270	161		
1978	1,065	90	197	17	--	--	--	--	--	--	1,262	107		
1979	440	27	37	3	--	--	--	--	--	--	477	30		
1980	250	55	50	6	--	--	--	--	--	--	300	61		
1981	270	23	65	3	--	--	--	--	--	--	335	26		
1982	324	39	--	--	--	--	--	--	--	--	324	39		
1983	0	60	--	--	--	--	--	--	--	--	0	60		
1984	815	221	--	--	--	--	--	--	--	--	815	221		
1985	114	38	--	--	--	--	--	--	--	--	114	38		
1986	213	44	--	--	--	--	--	--	--	--	213	44		
1987	300	40	--	--	--	--	--	--	--	--	300	40		
1988	316	30	10	1	--	--	--	--	--	--	326	31		
1989	0	0	--	--	--	--	--	--	--	--	0	0		
1990	393	30	--	--	--	--	--	--	--	--	393	30		
1991	--	41	0	0	--	--	--	--	--	--	0	41		
1992	--	83	40	2	--	--	--	--	--	--	40	85		
1993	--	42	--	--	--	0.2	--	--	--	--	--	42		
1994	--	8	--	--	--	--	--	--	--	--	--	8		
1995	--	12	--	--	--	--	--	--	--	--	--	12		

Table 1 (continued)

Species	REGION												STATE TOTALS			
	Northern		Central		Southern		Northeastern		Southeastern		Miles		Hours		Miles	Hours
Wild Turkey	Miles	Hours	Miles	Hours	Miles	Hours	Miles	Hours	Miles	Hours	Miles	Hours	Miles	Hours	Miles	Hours
1972	--	--	73	62	--	--	--	--	290	54	363	116	--	--	363	116
1973	--	--	143	11	--	--	--	--	--	--	143	11	--	--	143	11
1974	--	--	0	0	--	--	--	--	799	64	799	64	--	--	799	64
1975	--	--	215	18	--	--	--	--	792	100	1,007	118	--	--	1,007	118
1976	--	--	125	16	--	--	--	--	362	45	487	61	--	--	487	61
1977	--	--	193	29	--	--	--	--	421	58	614	87	--	--	614	87
1978	--	--	--	--	--	--	--	--	204	55	204	55	--	--	204	55
1979	--	--	--	--	--	--	--	--	190	14	190	14	--	--	190	14
1980	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1981	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1982	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1983	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1984	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1985	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1986	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1987	--	--	--	--	--	--	--	--	41	15	41	15	--	--	41	15
1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1990	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1991	--	--	155	68	--	--	--	--	150	15	305	83	--	--	305	83
1992	--	--	100	16	--	--	--	--	35	6	135	22	--	--	135	22
1993	--	--	--	--	--	--	57	3	117	9	174	12	--	--	174	12
1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cottontail Rabbit	Miles	Hours	Miles	Hours	Miles	Hours	Miles	Hours	Miles	Hours	Miles	Hours	Miles	Hours	Miles	Hours
1972	279	--	939	--	360	--	555	--	555	--	2,643	--	555	--	2,643	--
1973	242	--	879	--	270	--	270	--	270	--	1,998	--	270	--	1,998	--
1974	180	--	1,040	--	370	--	542	--	542	--	2,402	--	542	--	2,402	--
1975	330	--	1,237	--	340	--	712	--	712	--	2,850	--	712	--	2,850	--
1976	510	--	1,382	--	300	--	636	--	636	--	3,088	--	636	--	3,088	--
1977	360	--	1,329	--	400	--	556	--	556	--	2,907	--	556	--	2,907	--
1978	382	--	1,038	--	300	--	761	--	761	--	2,745	--	761	--	2,745	--
1979	270	--	903	--	400	--	580	--	580	--	2,423	--	580	--	2,423	--
1980	90	--	655	--	359	--	540	--	540	--	1,909	--	540	--	1,909	--
1981	270	--	903	--	400	--	580	--	580	--	2,423	--	580	--	2,423	--
1982	240	--	722	--	298	--	602	--	602	--	2,102	--	602	--	2,102	--
1983	90	--	822	--	340	--	590	--	590	--	1,932	--	590	--	1,932	--
1984	--	--	177	--	356	--	340	--	340	--	196	--	340	--	196	--
1985	--	--	175	--	631	--	400	--	400	--	450	--	400	--	450	--
1986	240	--	534	--	358	--	330	--	330	--	1,610	--	330	--	1,610	--
1987	150	--	669	--	373	--	240	--	240	--	1,552	--	240	--	1,552	--
1988	--	--	129	--	604	--	379	--	379	--	360	--	379	--	360	--
1989	90	--	90	--	266	--	360	--	360	--	872	--	360	--	872	--
1990	150	--	97	--	210	--	360	--	360	--	879	--	360	--	879	--
1991	90	--	--	--	105	--	330	--	330	--	558	--	330	--	558	--
1992	60	--	90	--	204	--	360	--	360	--	857	--	360	--	857	--
1993	--	--	--	--	207	--	360	--	360	--	750	--	360	--	750	--
1994	--	--	--	--	148	--	--	--	--	--	148	--	--	--	148	--
1995	--	--	242	--	203	--	--	--	--	--	445	--	--	--	445	--

APPENDIX D: Season dates, bag limits and areas open by upland game species, 1995.

Species	Season Dates	Daily Bag Limit	Possession Limit	Areas Open
Pheasant	Nov.4-Nov.19	2	4 (2 bag limits)	*Statewide, except closed areas.
	Nov.4-Dec.3	2	4 (2 bag limits)	*All state and federal land (including private land leased by the Division subject to restrictions and closures imposed by administering agencies) in Carbon, Duchesne, Emery, Grand, Juab, Millard, San Juan, Sanpete, Sevier, Tooele and Uintah counties. *In Utah County, the Powell Slough and Goshen Warm Springs Wildlife Management areas as posted and marked. *In Box Elder County, the Box Elder County Posted Hunting Unit as posted and marked.
Mourning Dove	Sept. 1-30	10	20 (2 bag limits)	*Statewide, except closed areas.
Band-Tailed Pigeon	Sept. 1-30	5	10 (2 bag limits)	*Beaver, Garfield, Grand, Iron, Kane, Millard, Piute, San Juan, Sanpete, Sevier, Utah, Washington and Wayne counties.
Chukar Partridge	Sept.16-Nov.30	5	10 (2 bag limits)	*Beaver, Cache, Daggett, Davis, Iron, Millard, Morgan, Rich, Sanpete, Wasatch and Weber counties; *Those parts of Beaver, Box Elder, Iron, Juab, Millard, Salt Lake and Utah counties east of I-15; *That part of Sevier County north of I-70.
	Sept.16, 1995- Jan.31, 1996	5	10 (2 bag limits)	*Carbon, Duchesne, Emery, Garfield, Grand, Kane, Piute, San Juan, Tooele, Uintah, Washington and Wayne counties; *Those parts of Beaver, Box Elder, Iron, Juab, Millard, Salt Lake and Utah counties west of I-15; *That part of Sevier County south of I-70.

APPENDIX D (continued)

Species	Season Dates	Daily Bag Limit	Possession Limit	Areas Open
Sage Grouse	Sept. 9-12	2	4 (2 bag limits)	*Garfield, Iron, Piute, and Wayne counties; *That part of Beaver County south of SR-21 from Beaver on the east to the Utah-Nevada border and east of I-15.
	Sept. 9-17	2	4 (2 bag limits)	*Daggett, Grand, and Uintah counties; *That part of Sevier County south and west of I-70 and U.S.-89; *That part of Duchesne County north and east of the Duchesne River;
		1	2 (2 bag limits)	*That part of Box Elder County west of the Locomotive Springs-Snowville-Stone, Idaho road, Rich County.
Forest Grouse (blue and ruffed)	Sept. 9-Nov. 30	4	8 (2 bag limits)	*Statewide, except closed areas.
Quail (California and Gambel's)	Nov. 4-Nov. 19	5	10 (2 bag limits)	*Box Elder, Carbon, Daggett, Davis, Emery, Grand, Juab, Kane, Millard, Piute, Salt Lake, San Juan, Sevier, Tooele, Utah, and Weber counties.
	Nov. 4, 1994 - Dec. 31, 1995	5	10 (2 bag limits)	*Duchesne, Uintah, and Washington counties.
Hungarian Partridge	Sept. 16-Nov. 30	5	10 (2 bag limits)	*Cache, Davis, Morgan, Rich, Summit, and Weber counties; *Those portions of Box Elder and Juab counties east of I-15;
	Sept 16, 1995 Jan. 31, 1996	5	10 (2 bag limits)	*Tooele County; *That part of Box Elder and Juab counties west of I-15.
Sharp-tailed grouse				*The entire state is closed to hunting of sharp-tailed grouse.

APPENDIX D (continued)

Species	Season Dates	Daily Bag Limit	Possession Limit	Areas Open
White-tailed Ptarmigan	Sept.9-Oct.10	4	8	*Daggett, Duchesne, Summit and Uintah counties.
Cottontail Rabbit	Sept.9, 1995- Feb.29, 1996	10	20 (2 bag limits)	*Statewide, except closed areas.
Snowshoe Hare	Sept.9, 1995- Feb.29, 1996	5	10 (2 bag limits)	*Statewide, except closed areas.
Jackrabbit (white-tailed & black-tailed)	*Jackrabbits are not protected in Utah. They are not under Wildlife Board authority and may be hunted without a license, year-round and with any weapon.			

WILD TURKEY

RIO Grande

HUNT NAME	HUNT #	SEASON DATES	# OF PERMITS	SEASON LIMIT	AREAS OPEN
Beaver (early)	101a	Apr.13- 24, 1996	20	One male	Boundary begins at the junction of I-70 and Highway SR-89; then southerly on SR-89 to the Garfield-Piute county line, then westerly along this county line to the Beaver-Iron county line; then westerly along this county line to I-15; northerly on I-15 to I-70; easterly on I-70 to SR-89.
Beaver (late)	101b	Apr.27- May 19, 1996	20	One male	
*Duchesne County	102	Apr.13- May 19, 1996	10	One male	All of Duchesne County.
*Emery County	103	Apr.6- May 19, 1996	8	One male	All of Emery County west of highway US-6 and SR-24.
*Grand County	104	Apr.6- May 19, 1996	8	One male	Boundary begins at the junction of I-70 and highway SR-128; then

APPENDIX D (continued)

Rio Grande (continued)

HUNT NAME	HUNT #	SEASON DATES	# OF PERMITS	SEASON LIMIT	AREAS OPEN
					south on SR-128 to a point one mile south of the Dolores River; east on a line one mile south of the Dolores River to the Utah-Colorado state line; north on the state line to I-70; west on I-70 to SR-128.
Milford	105	Apr. 13- May 19, 1996	5	One male	Boundary begins at Milford, Utah; northerly on SR-257 to Negro Mag Wash; then east on Negro Mag Wash to Cunningham Wash; then south on Cunningham Wash to Wildcat Creek; then south on Wildcat Creek to Indian Creek; then south on Indian Creek to SR-21; then west and north on SR-21 to Milford.
*Morgan- South Rich	106	Apr. 6- May 19, 1996	5	One male	Morgan, Rich, Summit, and Weber counties. Boundary begins at the junction of Interstates 84 and 80 near Echo; then northeasterly on I-80 to the Utah-Wyoming state line; north along this state line to Highway SR-16; north on SR-16 to Highway SR-39 near Woodruff; west on SR-39 to Highway SR-167 (Trappers Loop Road); south on SR-167 to Highway SR-30 at Mountain Green; West on SR-30 to I-84; east on I-84 to I-80.
*Pine Valley (early)	107a	Apr. 13-24, 1996	20	One male	Boundary begins at the junction of I-15 and SR-56; then westerly on SR-56 to SR-18; then southerly on SR-18 to I-15; then northerly on I-15 to SR-56.

APPENDIX D (continued)

Rio Grande (continued)

HUNT NAME	HUNT #	SEASON DATES	# OF PERMITS	SEASON LIMIT	AREAS OPEN
*Pine Valley (late)	107B	Apr. 27- May 19, 1996	20	One male	
*Uintah County	108	Apr. 13- May 19, 1996	8	One male	All of Uintah county except that portion south of the White River and east of the Green River below the White River confluence.
No. Utah (early)	109a	Apr. 6-18, 1996	10	One male	That part of Utah County east of I-15, north of U.S.-6, and east of U.S.-89 from Thistle Junction south to the Utah-Sanpete county line.
No. Utah County (late)	109b	Apr. 20- May 19, 1996	15	One male	
Ogden	110	Apr. 6- May 19, 1996	10	One male	Weber, Box Elder, Cache, and Morgan counties. Beginning at Hyrum; then easterly on SR-101 to the Ant Flat Road (at Hardware Ranch); southerly on this road to SR-39; westerly and southerly on SR-39 to SR-167 (the new Trappers Loop Road); southerly on this road to I-84; westerly on I-84 to I-15; northerly on I-15 to exit 364 and U.S.-91; easterly and northerly on U.S.-91 to SR-101 easterly on this highway to Hyrum.
Abajo Mountains	111	Apr. 27- May 31, 1996	5	One male	Boundary begins at Monticello; then east on Highway U.S. 666 to the Utah-Colorado state line; south on this line to the Navajo Indian Reservation boundary; west on this boundary to South Cottonwood Creek; north along this creek and through Allen, Chippean, Deep and Mule Canyons to the causeway; north from

APPENDIX D (continued)

Rio Grande (continued)

HUNT NAME	HUNT #	SEASON DATES	# OF PERMITS	SEASON LIMIT	AREAS OPEN
West Pine Valley	112	Apr. 13- May 21, 1996	5	One male	the causeway through Trough Canyon to North Cottonwood Creek; north on this creek to SR-211; east on this highway to U.S.-191; south on this highway to Monticello.
Monroe Mountain	113	Apr. 13- May 21, 1996	5	One male	Iron and Washington counties; boundary begins at St. George, Utah and I-15; south on I-15 to the Arizona border; west on the Arizona border to the Nevada border; north on the Nevada border to SR-56; east on SR-56 to Beryl Junction and SR-18; south on SR-18 to St. George, Utah.
					Piute and Sevier counties; boundary begins at Junction, Utah and Highway U.S.-89; north on U.S.-89 to Sigurd, Utah; south on SR-24 to Highway SR-62; south on SR-62 to the junction of SR-62 and SR-22; west on SR-62 to Junction, Utah.

MERRIAM'S

HUNT NAME	HUNT #	SEASON DATES	# OF PERMITS	SEASON LIMIT	AREAS OPEN
Boulder Mountain (early)	201a	Apr. 27 May 7, 1996	75	One male	Boundary begins at the junction of SR-62 and SR-89 near Kingston, Utah; then southerly on SR-89 to the Pink Cliffs Road between Glendale and Cannonville; then easterly on the Pink Cliffs Road to SR-12; then easterly and northeasterly on SR-12 to the Burr Trail Road; then easterly on the Burr Trail Road to the Capitol Reef National Park boundary; then northerly along the park boundary to SR-24; then westerly on SR-24 to SR-62; then southerly on SR-62 to SR-89.

APPENDIX D (continued)

Rio Grande (continued)

HUNT NAME	HUNT #	SEASON DATES	# OF PERMITS	SEASON LIMIT	AREAS OPEN
Boulder Mountain (late)	201b	May 11- May 31, 1996	75	One male	
*Kolob	202	Apr. 27- May 31, 1996	35	One male	Area includes everything within the following description except for Zion National Park land; boundary begins at the junction of I-15 and SR-17; then easterly on SR-17 to SR-9 to the Zion National Park's east boundary; then northerly along the east boundary to the park's north boundary; then westerly along the park's north boundary to Deep Creek; then northerly on Deep Creek to Crystal Creek to the Cedar Mountain Road to I-15; then southerly on I-15 to SR-17.
Zion (early)	203A	Apr. 27- May 7, 1996	75	One male	Boundary begins at the junction of I-15 and SR-20; then southerly on I-15 to the Cedar Mountain Road; then southerly on the Cedar Mountain Road to Crystal Creek; then southerly on Crystal Creek to Deep Creek; then southerly on Deep Creek to the Zion National Park boundary; then easterly on the park boundary to the Washington-Kane County line; then southerly on the county line to SR-9; then easterly on SR-9 to SR-89; then northerly on SR-89 to SR-20; then westerly on SR-20 to I-15.
Zion (late)	203b	May 11- May 31, 1996	75	One male	
LaSal	204	Apr. 27- May 31, 1996	20	One male	Boundary begins at the junction of Highway

APPENDIX D (continued)

MERRIAM'S (continued)

HUNT NAME	HUNT #	SEASON DATES	# OF PERMITS	SEASON LIMIT	AREAS OPEN
					SR-128 and Highway US-191; then south on this highway to Highway SR-46; east on this highway to the Lisbon Valley Road; southeast on this road to the Island Mesa Road; east on this road to the Utah-Colorado stateline; north on this state line to a point one mile south of the Dolores River; west on a line one mile south of the Dolores River to SR-128; southwest on SR-128 to U.S.-191.

*Hunts comprised of all or largely private property. Hunters should obtain written permission to access property from the landowner before applying for the hunt.

APPENDIX E. Summary of upland game harvest questionnaire returns, 1962-95.

Year	Questionnaires	Total		Useable		Licenses Who
	Mailed	Returns	Percent	Returns	Percent	Did Not Hunt
1962	10,068	4,122	40.9	3,433	34.1	22.0%
1963	11,058	5,062	45.8	4,325	39.1	21.0%
1964	10,718	4,840	45.2	4,180	39.0	23.0%
1965	11,917	6,232	52.3	--	0.0	34.0%
1966	13,131	5,734	43.7	5,734	43.7	34.6%
1967	12,012	5,764	48.0	5,764	48.0	25.1%
1968	14,068	6,138	43.6	6,138	43.6	25.6%
1969	15,036	6,429	42.8	6,429	42.8	28.0%
1970	14,730	6,639	45.1	6,639	45.1	38.8%
1971	15,149	--	43.2	--	0.0	--
1972	15,272	--	--	6,399	41.9	--
1973	17,572	--	--	7,999	45.5	--
1974	27,379	9,157	33.4	8,027	29.3	--
1975	26,657	10,880	40.8	9,132	34.3	--
1976	21,250	7,889	37.1	6,226	29.3	--
1977	20,984	9,329	44.5	8,099	38.6	--
1978	24,733	7,575	30.6	6,529	26.4	--
1979	27,616	10,498	38.0	9,274	33.6	26.4%
1980	27,952	9,857	35.3	8,496	30.4	33.1%
1981	13,925	7,941	57.0	6,367	45.7	31.4%
1982	22,609	10,167	45.0	8,734	38.6	27.0%
1983	23,430	10,324	44.1	9,497	40.5	28.7%
1984	12,026	6,455	53.7	6,324	52.6	31.1%
1985	10,772	5,904	54.8	5,843	54.2	35.2%
1986	11,103	5,329	48.0	5,256	47.3	34.2%
1987	10,022	4,294	42.8	4,272	42.6	30.1%
1988	15,350	6,650	43.3	6,527	42.5	35.6%
1989	12,894	5,135	39.8	5,105	39.6	36.7%
1990	12,236	5,264	43.0	5,175	42.3	39.1%
1991	15,054	6,419	42.6	6,212	41.3	42.7%
1992	16,472	6,207	37.7	5,977	36.3	45.0%
1993	16,534	6,293	38.1	5,442	32.9	42.6%
1994	15,526	5,433	35.0	5,131	33.0	45.1%
1995	14,777	4,951	33.5	4,866	32.9	41.7%