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Steven M. Huffaker, Director

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Progress Report

UPLAND GAME

Study II, Job 1

April 1, 2005 to March 31, 2006

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PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Upland Game Surveys and Inventories
PROJECT:	W-170-R-30		
SUBPROJECT:	1-7	**STUDY NAME:**	Upland Game and Waterfowl Population Status and Trends
STUDY:	II		
JOB:	1		

PERIOD COVERED: April 1, 2005 to March 31, 2006

STATEWIDE

Summary

The 1991-1995 Upland Game Species Management Plan was followed during this report period. The plan will be revised, as needed, but not rewritten in the near future. Three general objectives of the plan are:

- Increase efforts at improving habitat for upland game species, particularly through the Department's Habitat Improvement Program (HIP)
- Increase hunting opportunity for underutilized species
- Simplify regulations to minimize confusion for the hunting public

Upland game population trends are monitored through harvest surveys, August roadside counts, August helicopter flush counts, rooster crow counts, hunter check stations, and wing barrel harvest data. Regions collect data using various methods based on regional bird densities and sampling constraints. Statewide, telephone surveys assess overall hunter activity and harvest of upland game species. From 1996-2000, telephone surveys estimated statewide rather than regional trends (except turkey) due to budget constraints. However, a separate telephone survey was conducted in 2000-2005 for sage-grouse and sharp-tailed grouse to improve sample size for these 2 species being considered for listing under the Federal Endangered Species Act (FESA). Also, starting in 2001, telephone surveys were expanded to collect regional data for all upland game species.

Upland game bird population trends varied widely by species based upon 2005 harvest estimates. Quail harvest was at an all time high. Harvest for chukar, gray partridge, and pheasant were lower than in 2004 but still near the 5 year average. Forest grouse harvest was the fifth lowest during the past 20 years.

The telephone survey estimated 30% of hunters hunting upland game in 2005 also hunted waterfowl.

Climatic Conditions

Snowfall during winter 2005 was above average in most of the state. Temperatures and precipitation during nesting season were warm and wet. Climatic conditions improved nest success and brood survival in most areas of the state. However, adverse weather conditions likely affected forest grouse production causing a low population as reflected by the 2005 harvest.

Trapping and Translocation

No trapping or translocation activities took place during this study period for pheasant, quail, forest grouse, chukar, or gray partridge.

Management Studies

No management studies took place during this study period for pheasant, forest grouse, chukar, gray partridge, or turkey.

Pheasant

Abstract

Pheasant management has intensified since the decline of pheasant populations during the 1980s. As of 31 March 2006, over 3,960 HIP upland bird projects covering about 91,000 acres had been started in Idaho. The Pheasant and Quail Initiative, started in 2001, continued in Clearwater and Southwest regions. The Initiative focuses HIP management to areas with opportunity to build on existing landscape scale upland game bird habitat.

Season Framework

In 2005, bag and possession limits for pheasant (Appendix A) remained at 3 and 6, respectively, statewide. Number of pheasants allowed per Wildlife Management Area (WMA) pheasant permit remained at 6, and the cost of the permit remained $21.50 for 2005.

Population Surveys

Roadside counts are conducted in Clearwater, Magic Valley, and Southwest regions. Number of pheasants observed per mile increased in Magic Valley and Southwest regions and remained the same in Clearwater Region as compared to 2004.

Harvest Characteristics

According to our statewide telephone survey, approximately 24,300 hunters harvested 97,600 pheasants in 2005 (Table 1). Average number of birds harvested per hunter day (Table 2) in 2005 (0.70) was higher than in 2004 (0.59). One hunter reported harvesting 60 pheasants during the 2005 season. Southwest Region had the highest hunter activity where approximately 10,350 hunters harvested an estimated 39,155 pheasants.

Habitat Conditions

Pheasant habitat provided by farmland is being permanently lost to housing development around population centers in southern Idaho. Habitat has also declined with intensive farming activities leaving little winter cover or food. Early swathing of alfalfa continues to destroy many nests, especially in Magic Valley Region. However, weather and precipitation in 2005 provided good nesting and brood-rearing habitat.

Depredations

Pheasants cause a few depredations, primarily on sweet corn in Southwest Region. Low population levels make this problem minimal.

Management Implications

Pheasant populations continue to fluctuate below historical levels in Idaho. Stable populations exist in areas where Conservation Reserve Program (CRP) lands complement other available nesting and brood-rearing habitat in Clearwater, Southwest, and Southeast regions. The State has an approved Conservation Reserve Enhancement Program (CREP) that will retire up to 100,000 acres of irrigated farmland in south-central and eastern Idaho. CREP lands will be planted to conservation cover that should benefit pheasants. There is public concern regarding predator numbers and their impacts to upland game species. To alleviate some of these concerns, the Department employed private trappers to trap and remove predators during the nesting season on WMAs where upland game and waterfowl production is a primary management objective.

Quail

Abstract

Statewide harvest in 2005 was at an all-time high. HIP efforts have increased to benefit quail in Clearwater and Southwest regions. Mountain quail are rare and hunting season has been closed since 1984.

Season Framework

Seasons in 2005 did not change from the framework for 2004. Closing date for quail season was 31 January in Panhandle, Clearwater, and Southwest regions and 31 December in Magic Valley Region (Appendix A). Bag limit was 10 per day.

Population Surveys

Quail are counted during August brood routes in Southwest and Magic Valley regions. Number of birds observed per mile of route was more than double the count in 2004 and was at an all-time high for both regions.

Harvest Characteristics

Statewide quail harvest estimate from the telephone survey increased from 124,100 in 2004 to 178,700 in 2005 (Table 1). Number of quail hunters in 2005 (11,000) was less than in 2004 (12,100). Number of birds taken per hunter increased from 10.2 in 2004 (Table 3) to 16.2 in 2005. One hunter reported harvesting 285 quail during the 2005 season. Southwest Region had the highest level of quail harvest with approximately 8,100 hunters taking about 145,800 birds.

For the 2005 season, hunters reported number of quail harvested and days hunted during each month of the season. September was reported from the start of the season through the month, 17-30 September. January was reported in 2-week time periods, 1-15 January and 16-31 January. Hunters spent more days hunting quail and harvested more quail in November (29% of days hunted and 28% of quail harvested) than any other month. Hunters spent only slightly fewer days and harvested slightly fewer birds in October (24% of days hunted, 23% of harvest) and December (24% of days hunted, 24% of harvest). Hunters spent fewer days (12% of days hunted) hunting quail and harvested fewer birds (11% of harvest) during the 2 weeks of the season in September. Extending the quail season to 31 January allowed Panhandle, Clearwater and Southwest region hunters more days (12% of days hunted) to harvest more birds (14% of harvest) than when the season closed on 31 December.

Quail were checked at stations incidental to other activities.

Habitat Conditions

In general, the amount of riparian and agricultural habitat suitable for quail appears stable. However, mountain quail have suffered a long-term decline for reasons that are unclear.

Management Studies

Mountain quail continue to decline in Idaho, and a petition to list mountain quail as endangered under the FESA was submitted in 2001. In 1992, a graduate research study was initiated to investigate reasons for the declines observed during the past several decades. The focus of the project shifted from spring/summer habitat use and seasonal movements to fall/winter emphasis in 1994. The project generated several reports, 2 management plans, several popular articles and a technical manuscript on the work. Results include information on seasonal habitat use and survival in Idaho as well as new habitat and population survey techniques. A summary of this work is provided in a 2004 IDFG report by Ann Moser and available at the Boise IDFG office.

Seventy-two mountain quail were translocated into Unit 11 of Clearwater Region during spring 2005 as part of a study. An additional 89 mountain quail (50 radio-equipped) from Oregon were transplanted onto Craig Mountain WMA in spring 2006. Also, mountain quail population and habitat surveys were conducted in Magic Valley Region. Further details for both studies are available in the annual IDFG research progress report for mountain quail studies.

Management Implications

Habitat improvement for quail will continue to be part of the HIP program. A greater emphasis on riparian buffers and shrub plantings will help improve existing habitat. Financial incentives for these practices also are available through the Continuous Conservation Reserve Program. The State has an approved CREP that will retire up to 100,000 acres of irrigated farmland in south-central and eastern Idaho. CREP lands will be planted to conservation cover that should benefit California quail.

Forest Grouse

Abstract

Forest grouse continue to be an important resource for upland game bird hunters in Idaho. Forest grouse harvest in 2005 (Table 1) was the fifth lowest in the past 20 years. Forest grouse management activities continue to be minimal.

Season Framework

The 2005 season framework was unchanged (Appendix A) with a 122-day season from 1 September to 31 December. This season framework has remained unchanged since 1990. Bag and possession limits were 4 and 8, respectively.

Population Surveys

Forest grouse population surveys were not conducted in Idaho during 2005.

Harvest Characteristics

The telephone survey indicated fewer forest grouse were harvested (Table 1) in 2005 (95,100) than in 2004 (134,100). In 2005, fewer hunters (24,400) pursued forest grouse (Table 4) than in 2004 (34,100). Hunters spent fewer days (144,800) hunting forest grouse in 2005 than in 2004 (210,800). However, hunters averaged more birds per day in 2005 (2.1) than in 2004 (0.64). Hunters harvested an average of 3.90 forest grouse in 2005, similar to 3.93 in 2004. One hunter reported harvesting 50 forest grouse in 2005. Approximately 6,000 hunters in Panhandle Region harvested more forest grouse (27,900) than hunters in any other region.

Wing data were collected incidental to check stations run for other species. Wings were also collected at wing barrels.

Habitat Conditions

The Department provides information to landowners on how to improve forest grouse habitat. In 2000, the HIP program was expanded to include projects for all upland game bird species. Riparian enhancement is the main practice implemented to benefit forest grouse. The Department's Mule Deer Initiative (MDI) is assisting private landowners in eastern Idaho to

improve aspen stands as mule deer habitat. Aspen improvement projects will likely improve habitat also for ruffed grouse.

Management Implications

With current staffing and operating resources, little additional management work on forest grouse is planned.

Sage-grouse

Abstract

Extensive lek routes are run by the Department to monitor populations in specific areas and their response to local weather and habitat conditions. Wildfire has caused a significant loss of sage-grouse habitat. Invasion by, and spread of, cheatgrass and medusahead in sagebrush steppe has increased wildfire frequency. Frequent wildfires are preventing reestablishment of sagebrush in burned areas, especially in southwest and south-central Idaho. Season regulations were liberalized and standardized from 1990-1995 but changed drastically in 1996. Hunter participation has decreased by about 50% over the last decade. The Department initiated a statewide management effort in 1996 to provide statewide leadership in conserving Idaho's sage-grouse populations.

Season Framework

The season framework was altered in 1996 to provide 3 different types of seasons: liberal, conservative, and closed. The season framework changed in 2002. Birch Creek Valley and the Big Desert areas that were previously closed (1995-2001) to sage-grouse hunting were reopened. Research suggested that the closed season did not have any measurable effect on sage-grouse populations as measured by number of sage-grouse counted on lek routes. The hunting season was closed in 2002 in the Curlew Grasslands area due to low populations.

Population Surveys

Lek routes have been expanded and standardized during the last few years. This was done to provide data that is more robust to year-to-year variation in attendance at a single lek and bird distribution.

Harvest Characteristics

Starting in 2000, sage-grouse hunters were required to purchase a sage-grouse hunting validation. This requirement provided a means of collecting better harvest estimates from a sample of sage-grouse hunters through a telephone survey. Approximately 6,800 hunters harvested 10,500 sage-grouse in 2005 (Table 5). Hunters averaged 0.72 birds per day and 1.56 birds for the season (Table 5).

Numerous check stations are run in the state to gather information on reproductive success in different areas. In general, the sample size has decreased at these check stations in recent years due to shortened seasons and reduced hunter participation.

Habitat Conditions

Habitat management continues to be a major issue for the Department throughout the state. Several other western states are also concerned about sage-grouse declines that have occurred throughout the West over the last 10-15 years. Wildfire frequency and size in sagebrush steppe has increased, especially during the drought years, 1997-2005.

Management Studies

A single statewide dataset for historic sage-grouse lek information was created. This data is available to all state and federal agencies involved in sage-grouse surveys and habitat work. Management projects continued statewide to locate critical sage-grouse habitats. Research projects continue in Upper Snake, Magic Valley, and Southwest regions to investigate causes of mortality of juvenile sage-grouse and impacts of habitat loss.

Management Implications

Sage-grouse are a good indicator of sagebrush habitat health. In August 1997, the Idaho Fish and Game Commission adopted a long-term management plan. Eight local working groups in different parts of the state are meeting to help determine the needs of local sage-grouse populations. The state sage-grouse advisory committee has finished the Conservation Plan for the Greater Sage-grouse in Idaho and it can be found at the Department website at http://fishandgame.idaho.gov/cms/hunt/grouse/conserve_plan/.

Sharp-tailed Grouse

Abstract

The largest remaining Columbian sharp-tailed grouse populations occur in eastern Idaho. Sharptails have received substantial benefits from CRP grassland habitat since the late 1980s. Translocation efforts continued during the study period. Since 1991, 1,077 sharp-tailed grouse have been translocated from areas in southeastern Idaho. Translocated grouse include 524 birds released in the Shoshone Basin and House Creek areas of Magic Valley Region and 553 birds released in Oregon, Nevada, and Washington.

Season Framework

The 2005 season framework was a 31-day season (1-31 Oct) statewide (Appendix A). The bag and possession limits remained at 2 and 4, respectively.

Population Surveys

Lek counts were conducted in the Upper Snake, Southeast, and Magic Valley regions. Number of sharp-tailed grouse attending leks in 2005 increased on most lek routes as compared to 2004.

Harvest Characteristics

Beginning in 2000, sharp-tailed grouse hunters were required to purchase a sharp-tailed grouse hunting validation. This requirement provided a means of collecting better harvest estimates from a sample of sharp-tailed grouse hunters through a telephone survey. In 2005, 2,200 hunters harvested 5,200 sharp-tailed grouse (Table 1). Hunters averaged 0.83 birds per day and 2.34 birds per season (Table 6).

Sharp-tailed grouse wings are collected at wing barrels and hunters checked incidental to other management activities. Wing barrels provide a large proportion of the wings collected. Wing data indicated that production nearly doubled in Southeast Region but decreased in Upper Snake Region.

Habitat Conditions

The federal government's CRP program continues to provide habitat for sharp-tailed grouse in Idaho. The Department's MDI is planting forbs, legumes, and shrubs in existing CRP in eastern Idaho to improve mule deer habitat. Many of the MDI projects are in sharp-tailed grouse range and will also improve grouse habitat.

Trapping and Translocation

Since 1991, the Department has been trapping Columbian sharp-tailed grouse in southeastern Idaho for translocation to suitable habitats. In 1991, 33 birds were trapped and translocated to northeastern Oregon. Releases have taken place annually since that initial attempt.

During 1991-2006, 1,077 Columbian sharp-tailed grouse (649 males, 428 females) were trapped in southeast Idaho for reintroduction projects in Idaho, Oregon, Washington, and Nevada. Five hundred twenty-four grouse were released in the Shoshone Basin and House Creek areas, Twin Falls County, Idaho, and 553 birds were provided to the other states.

Management Studies

Sharp-tailed grouse have been observed in Cherry Springs, Indian Springs, Hopper Gulch, Nat Soo Pah, Pine Tit, Parker Spring, and Lost Creek areas which suggest the population has expanded to over 200 mi^2. Only 3 active leks were documented in 2006, but survey efforts were minimal.

Management Implications

Idaho has a unique resource in its Columbian sharp-tailed grouse populations. The Department will continue its efforts to translocate sharptails into areas identified as potential sharp-tailed grouse habitat to expand their distribution in Idaho. The Department is also beginning to focus more habitat development and improvement projects in eastern Idaho for sharp-tailed grouse.

Chukar

Abstract

Chukar harvest in Idaho decreased in 2005. Survey work is limited to helicopter index flights conducted in Clearwater and Southwest regions.

Season Framework

In 2000, a single season framework was applied statewide with a closing date of 15 January. However, the season framework was split into 3 areas with different closing dates starting in 2004 (Appendix A). Chukar season runs concurrent with gray partridge season. The bag and possession limit for 2005 remained at 8 and 16, respectively.

Population Surveys

Chukar surveys were conducted by helicopter in Southwest and Clearwater regions during late August 2005. Number of chukar observed per square mile was the second highest recorded in part of Clearwater Region and second highest in Southwest Region.

Harvest Characteristics

In 2005, hunters harvested an estimated 104,100 chukars (Table 1), seventh highest harvest in the past 20 years. Fewer hunters (Table 7) pursued chukars during 2005 (12,600) than in 2004 (16,700). However, hunters harvested more chukars per day (1.71) and per season (8.29) in 2005 than in 2004 (1.56 and 6.62, respectively). Southwest Region hunters (7,700) harvested the most chukars (62,300) than any other region. One hunter reported harvesting 246 chukars.

For the 2005 season, hunters reported number of chukar and gray partridge harvested and days hunted during each month of the season. Chukar and gray partridge were not reported separately. September was reported from the start of the season through the month, 17-30 September. January was reported in 2-week time periods, 1-15 January and 16-31 January. Hunters spent more days pursuing chukar and gray partridge and harvested more birds in October (28% of days hunted and 24% of birds harvested) than any other month. Hunters spent only slightly fewer days and harvested slightly fewer birds in November (23% of days hunted, 20% of harvest). Hunters spent similar amount of days hunting birds and harvested similar number of birds in September (18% of days, 21% of harvest) and December (19% of day, 19% of harvest). The least amount days hunting birds and harvest occurred in January, 12% and 16%, respectively. Extending the chukar and gray partridge season to 31 January allowed Panhandle,

Clearwater, and Southwest region hunters a few more days (5% of days hunted) to harvest more birds (7% of harvest) than when the season closed on 15 January.

Habitat Conditions

Nesting and brood-rearing habitat conditions were good during 2005. Most chukar habitat occurs on public lands and is affected mostly by weather, livestock grazing, or wildfire.

Management Implications

Overall, chukar harvest estimates have increased since 1997. Annual chukar populations, like most upland game, are greatly influenced by weather conditions during nesting and brood-rearing seasons. Current season lengths and bag and possession limits apparently do not need to be reduced for chukar during periods of population lows. Upland game density-dependent hunting pressure is well documented in pheasant and quail populations (George et al. 1980, Vance and Ellis 1972, Kabat and Thompson 1963, Galliziolli and Swank 1958, Bennitt 1951), and it is likely no different for chukar.

Gray Partridge

Abstract

Harvest estimates indicate populations increased in 2005. HIP efforts and CRP will continue to improve gray partridge habitat statewide.

Season Framework

In 2000, a single season framework was applied statewide with a closing date of 15 January. However, the season framework was split into 3 areas with different closing dates starting in 2004 (Appendix A). Gray partridge season runs concurrent with chukar season. The bag and possession limit in 2005 was 8 and 16, respectively.

Population Surveys

Gray partridge observations are recorded during the August roadside survey routes. Trend data indicated an increase in Clearwater and Magic Valley regions. However, brood routes do not sample non-agricultural habitat used by gray partridge in Idaho and may not reflect statewide gray partridge population trends.

Harvest Characteristics

Hunters harvested an estimate 44,000 gray partridge (Table 1) in 2005, sixth highest harvest in the past 20 years. More hunters (Table 8) pursued gray partridge during 2005 (9,100) than in 2004 (8,800). Hunters harvested more gray partridge per day (1.00) and per season (4.88) in 2005 than in 2004 (0.62 and 3.02, respectively). Southwest Region hunters (3,300) harvested

more gray partridge (12,800) than any other region. One hunter reported harvesting 60 gray partridge.

For the 2005 season, hunters reported number of chukar and gray partridge harvested and days hunted during each month of the season. Chukar and gray partridge were not reported separately. September was reported from the start of the season thru the month, 17-30 September. January was reported in 2-week time periods, 1-15 January and 16-31 January. Hunters spent more days pursuing chukar and gray partridge and harvested more birds in October (28% of days hunted and 24% of birds harvested) than any other month. Hunters spent only slightly fewer days and harvested slightly fewer birds in November (23% of days hunted, 20% of harvest). Hunters spent similar amount of days hunting birds and harvested similar number of birds in September (18% of days, 21% of harvest) and December (19% of day, 19% of harvest). The least amount days hunting birds and harvest occurred in January, 12% and 16%, respectively. Extending the chukar and gray partridge season to 31 January allowed Panhandle, Clearwater, and Southwest region hunters a few more days (5% of days hunted) to harvest more birds (7% of harvest) than when the season closed on 15 January.

Habitat Conditions

Gray partridge habitat provided by farmland is being permanently lost to housing development around population centers in southern Idaho. However, there still remains habitat along the farmland-sagebrush steppe interface. Nesting and brood-rearing habitat conditions were good during 2005. HIP activities continue to improve gray partridge habitat in many parts of the state, especially in areas with large acreage of CRP.

Management Implications

Gray partridge will continue to be a species with relatively little active management. HIP activities will continue to enhance habitat, primarily in agricultural areas. The State has an approved CREP that will retire up to 100,000 acres of irrigated farmland in south-central and eastern Idaho. CREP lands will be planted to conservation cover that should benefit gray partridge.

Wild Turkey

Abstract

Wild turkey populations have expanded in Idaho during the past decade. Most suitable habitat has been stocked and overall population growth has stabilized. Harvest in 2005 increased from the previous year and was the second highest harvest on record. Turkeys were trapped during winter to address nuisance and depredation concerns.

Season Framework

Spring general hunts were offered in Panhandle, Clearwater, Southwest, and Southeast regions during 2005 (Appendix A). Spring controlled hunts were offered in Southwest, Magic Valley,

Southeast, and Upper Snake regions. A fall general season was offered in Panhandle, Clearwater, Southwest, and Southeast regions. An early, 2-day general season youth-only hunt was offered in Panhandle, Clearwater, Southwest, and Southeast regions in April. Bag limit was 3 turkeys during the year with no more than 2 bearded turkeys per spring (1 per day) and 2 turkeys (either sex) during fall.

Population Surveys

No formal surveys were conducted.

Harvest Characteristics

Hunters harvested (Table 1) more turkeys in 2005 (6,463) than in 2004 (5,384). Telephone survey indicated 4,064 and 2,213 turkeys were harvested during general spring and general fall hunts, respectively (Table 9). Hunters harvested 186 turkeys during spring controlled hunts. Tags issued increased from 25,763 in 2004 to 32,654 in 2005. Statewide harvest is concentrated in Panhandle, Clearwater, and Southwest regions.

No wild turkey check stations are conducted in Idaho.

Trapping and Translocation

A total of 220 turkeys were trapped in Unit 1 and translocated to Cottonwood Creek in Unit 39 (60), Willow Creek in Unit 39 (25), and Craig Mountain WMA in Unit 11 (56) during winter 2005-2006 (Table 10). The additional captured turkeys (79) were relocated in Units 1 and 4A.

Management Implications

Wild turkeys continue to be trapped and translocated in response to private landowner concerns with nuisance and depredations caused by wild turkeys. Interest in hunting this species continues to grow. National Wild Turkey Federation (NWTF) chapters are now established in each region except for Salmon Region. Cooperative habitat projects have been developed between NWTF, the Department, and cooperating private landowners.

Mourning Dove

Abstract

Mourning dove continues to be a popular early-season species for hunting. Populations remain relatively low because of habitat changes.

Season Framework

The 2005 season framework remained unchanged from 2004 (Appendix A). Bag and possession limits were 10 and 20, respectively.

Population Surveys

Call-count surveys (Table 11) are conducted annually and data are provided to U.S. Fish and Wildlife Service (USFWS) who monitor dove numbers nationwide. Number of doves heard per mile increased along most routes statewide.

Harvest Characteristics

Harvest information on mourning doves is collected via the USFWS harvest survey.

Trapping and Banding

Since 2003, Idaho has participated in a statewide effort (all regions except Panhandle) to trap and band mourning doves. In 2003, 447 doves were banded (Table 12). All doves received a standard leg band on the right leg, and for all odd-numbered bands, a gold band was placed on the opposite leg. In 2004, a total of 857 doves were banded statewide. All doves received a standard leg band; hatch-year doves also received a reward band on the opposite leg. In 2005, 839 doves were banded, and all doves received a standard leg band.

Management Implications

In 1987, the federal season framework reduced the maximum allowable season length to 30 days and maximum daily bag and possession limits to 10 and 20, respectively. Idaho's hunting season regulations since then have reflected those changes. Dove will continue to decline because of habitat conditions.

Rabbits and Hares

Abstract

Rabbit and hare population trends are not monitored except by telephone harvest survey estimates.

Season Framework

The season on pygmy rabbits was closed in 2002 due to concerns about low pygmy rabbit populations. Seasons for cottontail rabbits and snowshoe hares did not change from 2004 (Appendix A).

Harvest Characteristics

In 2005, approximately 2,890 hunters harvested 17,000 rabbits (Table 13). Also, 590 hunters harvested approximately 2,540 snowshoe hares.

Management Implications

Cottontail and snowshoe hare will continue to be a species with no active management in Idaho. Research on pygmy rabbits is being conducted at the Idaho National Laboratory (INL) in eastern Idaho.

American Crow

Season Framework

No change from 2004 (Appendix A).

Harvest Characteristics

Insufficient data is collected from the telephone survey to allow an estimate of crow harvest.

Management Implications

Crows will continue to be a species with no active management in Idaho.

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Table 1. Estimated upland game bird harvest in Idaho as determined by random telephone survey of license buyers, 1987-present.

Year	Pheasant	Forest grouse	Gray partridge	Chukar	Quail	Sage-grouse	Sharp-tailed grouse	Turkey
1987	155,600	100,800	28,200	92,100	39,200	42,000	4,300	185
1988	111,900	107,500	25,000	68,100	55,100	39,600	3,500	238
1989	102,700	122,600	10,000	55,800	55,000	40,000	3,500	228
1990	148,700	98,500	31,200	72,200	70,400	55,800	9,800	291
1991	117,700	103,400	32,400	72,700	73,300	39,500	6,000	495
1992	132,400	112,100	27,800	54,600	91,100	29,900	9,300	487
1993[a]	129,100	190,600	39,000	72,800	117,200	37,400	14,400	977
1994	115,400	283,100	34,800	88,800	118,500	38,500	8,200	1,339
1995	114,600	252,600	42,500	125,200	175,300	27,500	7,900	1,526
1996[a]	166,500	292,800	109,300	208,600	350,500	21,000	14,700	1,720
1997	63,300	43,853	32,100	37,300	87,200	16,000	10,300	2,703
1998	94,000	136,100	43,400	74,900	112,400	17,500		2,690
1999	110,100	80,600	103,100	96,800	114,900	4,700	12,400	5,458
2000	113,100	85,900	94,800	134,400	168,800	7,200	5,800	4,893
2001[a]	87,100	149,400	41,800	89,300	119,600	7,000	4,100	4,483
2002	58,600	147,700	26,600	109,000	88,600	7,600	3,500	5,068
2003	77,500	182,800	52,500	130,800	140,400			6,491
2004	69,300	134,100	26,700	110,800	124,100	8,100	4,800	5,384
2005	97,600	95,100	44,000	104,100	178,700	10,500	5,200	6,463
10-year average	93,710	134,835	57,430	109,600	148,520	11,067	7,600	4,535

[a] New telephone survey methodology.

Table 2. Season framework, estimated pheasant hunter numbers, and harvest in Idaho, 1983-present.

Year	Season (days)[a]	Daily bag[a]	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
1983	44	4	78,500	374,100	455,100	4.77	0.82
1984	44	4	67,600	264,000	346,400	3.91	0.76
1985	44	4	57,000	237,800	336,100	4.17	0.71
1986	58	4	49,600	180,100	249,700	3.63	0.72
1987	58	4	41,300	155,600	220,700	3.77	0.71
1988	58	4	31,300	111,900	166,800	3.57	0.67
1989	58	4	28,500	102,700	160,500	3.61	0.64
1990	58	3	33,100	148,700	199,100	4.50	0.75
1991	58	3	30,900	117,700	183,900	3.81	0.64
1992	58	3	31,200	132,400	183,200	4.24	0.72
1993[b]	58	3	31,900	129,100	222,100	4.05	0.58
1994	58	3	25,600	115,400	161,200	4.53	0.72
1995	58	3	28,100	114,600	189,600	4.07	0.60
1996[b]	58	3	32,900	166,500	234,900	5.06	0.71
1997	58	3	32,900	63,300	108,700	1.92	0.58
1998	76	3	28,400	94,000	136,200	3.31	0.69
1999	77	3	23,700	110,100	150,700	4.65	0.73
2000	72	3	22,000	113,100	140,000	5.14	0.81
2001[b]	73	3	27,300	87,100	142,300	3.29	0.61
2002	74	3	24,600	58,600	115,400	2.38	0.51
2003	75	3	24,500	77,500	125,500	3.16	0.62
2004	77	3	24,300	69,300	118,400	2.86	0.59
2005	78	3	24,300	97,600	138,700	4.02	0.70
10-year average			26,490	93,710	141,080	3.58	0.66

[a] Season length and bag in southwestern Idaho where the majority of pheasant hunting occurs.
[b] New telephone survey methodology.

Table 3. Season framework, estimated quail hunter numbers, and harvest in Idaho, 1983-present.

Year	Season (days)[a]	Daily bag[a]	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
1983	106	10	8,000	59,500	46,800	7.44	1.27
1984	108	10	6,400	47,000	42,800	7.34	1.10
1985	102	10	7,000	56,500	43,400	8.07	1.30
1986	103	10	5,900	39,200	26,300	6.64	1.49
1987	104	10	5,200	39,200	29,900	7.54	1.31
1988	106	10	6,300	55,100	34,700	8.75	1.59
1989	107	10	5,800	55,000	31,900	9.48	1.72
1990	108	10	7,400	70,500	44,600	9.53	1.58
1991	102	10	7,300	73,300	46,600	10.04	1.57
1992	103	10	8,000	91,100	45,300	11.39	2.01
1993[b]	104	10	15,400	117,200	63,900	7.61	1.83
1994	105	10	13,200	118,500	74,000	9.01	1.60
1995	106	10	15,500	175,300	101,800	11.39	1.72
1996[b,c]	116	10	22,300	350,500	118,400	15.72	2.96
1997	103	10	12,000	87,200	49,600	7.27	1.76
1998	104	10	13,200	112,400	58,000	8.52	1.93
1999	105	10	10,100	114,900	57,500	11.38	2.00
2000	107	10	10,700	168,800	66,400	15.79	2.54
2001[b]	108	10	12,000	119,600	59,100	9.98	2.02
2002	102	10	12,300	88,600	51,100	7.20	1.73
2003	103	10	11,700	140,400	59,500	12.00	2.36
2004	136	10	12,100	124,100	60,500	10.22	2.05
2005	137	10	11,000	178,700	74,600	16.22	2.40
10-year average			12,740	148,520	65,470	11.43	2.18

[a] Season length and bag in Canyon County.
[b] New telephone survey methodology.
[c] Special 2-week extension 18-31 January 1997.

Table 4. Season framework, estimated forest grouse hunter numbers, and harvest in Idaho, 1983-present.

Year	Season (days)	Daily bag	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
1983	72	4	22,700	110,000	135,800	4.85	0.81
1984	72	4	19,100	85,600	119,100	4.48	0.72
1985	72	4	18,200	73,400	103,900	4.03	0.71
1986	100	4	20,400	104,400	123,400	5.12	0.85
1987	93	4	18,400	100,800	98,800	5.48	1.02
1988	102	4	19,800	107,500	127,100	5.43	0.85
1989	101	4	22,100	122,600	167,600	5.55	0.73
1990	122	4	20,900	98,500	130,900	4.71	0.75
1991	122	4	21,600	103,400	132,500	4.79	0.78
1992	122	4	23,600	112,100	148,200	4.75	0.76
1993[a]	122	4	55,800	190,600	357,100	3.42	0.53
1994	122	4	60,700	283,100	458,600	4.69	0.62
1995	122	4	61,800	252,600	464,500	4.07	0.54
1996[a]	122	4	60,000	292,800	420,600	4.88	0.70
1997	122	4	15,300	43,900	60,200	2.87	0.73
1998	122	4	39,400	136,100	160,600	3.45	0.85
1999	122	4	14,500	80,600	81,600	5.56	0.99
2000	122	4	14,200	86,000	73,500	6.07	1.17
2001[a]	122	4	31,900	149,400	181,700	4.69	0.82
2002	122	4	33,500	147,700	199,500	4.41	0.74
2003	122	4	33,600	182,800	193,000	5.44	0.95
2004	122	4	34,100	134,100	210,800	3.93	0.64
2005	122	4	24,400	95,100	144,800	3.90	2.10
10-year average			30,090	134,850	172,630	4.52	0.97

[a] New telephone survey methodology.

Table 5. Season framework, estimated greater sage-grouse hunter numbers, and harvest in Idaho, 1983-present.

Year	Season (days)[a]	Daily bag[a]	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
1983	14	1[b]	7,100	13,700	18,400	1.93	0.75
1984	14	1[b]	5,300	11,700	15,400	2.21	0.76
1985	14	3[b]	10,000	26,900	30,000	2.69	0.90
1986	23	3	11,200	37,900	35,700	3.38	1.06
1987	23	3	11,900	42,000	37,500	3.53	1.12
1988	23	3	12,300	39,600	44,000	3.22	0.90
1989	23	3	11,100	40,000	40,000	3.60	1.00
1990	30	3	13,800	55,800	49,400	4.04	1.13
1991	30	3	14,500	39,500	48,100	2.72	0.82
1992	30	3	13,200	29,900	42,700	2.27	0.70
1993[c]	30	3	26,700	37,400	92,700	1.40	0.40
1994	30	3	17,900	38,500	67,500	2.16	0.57
1995	30	3	17,400	27,500	66,700	1.60	0.41
1996[c]	7	1	12,000	21,000	45,100	1.75	0.47
1997	7	1	5,700	16,000	18,400	2.81	0.87
1998	7	1	9,200	17,500	36,000	1.90	0.49
1999	7	1	3,500	4,700	7,900	1.34	0.60
2000	7	1	5,900	7,200	12,900	1.22	0.56
2001[c]	7	1	5,300	7,000	12,100	1.32	0.58
2002	7	1	5,800	7,600	13,000	1.31	0.58
2003[d]	7	1					
2004	7	1	7,400	8,100	15,300	1.09	0.53
2005	7	1	6,800	10,500	14,700	1.56	0.72
10-year average			6,844	11,067	19,489	1.59	0.60

[a] Season length and bag in Butte County until 1995. In 1996, seasons changed dramatically and season days are for Fremont County.
[b] Aggregate bag with sharp-tailed grouse.
[c] New telephone survey methodology.
[d] Telephone survey data for 2003 is not available.

Table 6. Season framework, estimated sharp-tailed grouse hunter numbers, and harvest in Idaho, 1983-present.

Year	Season (days)[a]	Daily bag[a]	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
1983	14	1[b]	600	900	18,400	1.50	0.05
1984	14	1[b]	800	900	2,500	1.13	0.36
1985	14	3[b]	800	2,000	3,900	2.50	0.51
1986	14	2	700	1,700	3,300	2.43	0.52
1987	14	2	1,100	4,300	3,100	3.91	1.39
1988	16	2	800	3,500	3,400	4.38	1.03
1989	16	2	1,200	3,500	4,400	2.92	0.80
1990	16	2	1,900	9,800	8,700	5.16	1.13
1991	16	2	1,900	6,000	6,700	3.16	0.90
1992	16	2	2,400	9,300	7,600	3.88	1.22
1993[c]	16	2	5,100	7,200	19,600	1.43	0.37
1994	16	2	7,800	8,200	32,400	1.08	0.25
1995	16	2	7,900	7,900	40,300	1.04	0.20
1996[c]	16	2	7,000	14,700	31,900	2.10	0.46
1997	16	2	4,300	10,300	12,000	2.40	0.86
1998	16	2					
1999	16	2	2,600	12,400	11,600	4.77	1.07
2000	31	2	2,800	5,800	7,700	2.06	0.75
2001[c]	31	2	2,200	4,100	6,000	1.83	0.67
2002	31	2	1,900	3,500	5,100	1.84	0.69
2003[d]	31	2					
2004	31	2	2,300	4,800	6,100	2.08	0.79
2005	31	2	2,200	5,200	6,300	2.34	0.83
10-year average			3,163	7,600	10,838	2.43	0.77

[a] Season length and bag in Fremont County.
[b] Aggregate bag with sage-grouse.
[c] New telephone survey methodology.
[d] Telephone survey data for 2003 is not available.

Table 7. Season framework, estimated chukar hunter numbers, and harvest in Idaho, 1983-present.

Year	Season (days)[a]	Daily bag[a]	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
1983	106	8	11,600	44,700	45,900	3.85	0.97
1984	108	3	4,400	10,500	16,200	2.39	0.65
1985	102	3	7,200	30,800	28,000	4.28	1.10
1986	103	8	9,800	59,500	37,600	6.07	1.58
1987	104	8	12,100	92,100	60,400	7.61	1.53
1988	106	8	10,600	68,000	47,200	6.42	1.44
1989	107	8	8,800	55,800	42,300	6.34	1.32
1990	108	8	10,400	72,200	42,700	6.94	1.69
1991	102	8	10,900	72,700	48,100	6.67	1.51
1992	103	8	10,500	54,600	42,700	5.21	1.28
1993[b]	104	8	16,500	72,800	81,900	4.41	0.89
1994	105	8	14,000	88,800	65,700	6.38	1.35
1995	106	8	16,900	125,200	95,500	7.47	1.31
1996[b]	102	8	18,500	208,600	140,500	11.28	1.49
1997	103	8	14,400	37,300	33,600	2.59	1.11
1998	119	8	14,000	74,900	51,600	5.35	1.45
1999	120	8	12,000	96,500	58,300	8.04	1.66
2000	122	8	9,800	134,400	85,600	13.72	1.57
2001[b]	123	8	13,800	89,300	61,600	6.46	1.45
2002	117	8	15,400	109,000	71,500	7.08	1.52
2003	118	8	16,600	130,800	76,400	7.88	1.71
2004	136	8	16,700	110,800	71,200	6.62	1.56
2005	137	8	12,600	104,100	61,000	8.29	1.71
10-year average			14,380	109,570	71,130	7.73	1.52

[a] Season length and bag in Canyon County.
[b] New telephone survey methodology.

Table 8. Season framework, estimated gray partridge hunter numbers, and harvest in Idaho, 1983-present.

Year	Season (days)[a]	Daily bag[a]	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
1983	106	8	11,300	59,500	72,100	5.27	0.83
1984	108	3	5,300	23,500	35,700	4.43	0.66
1985	102	3	4,800	16,800	26,200	3.50	0.64
1986	103	8	4,800	17,200	22,700	3.58	0.76
1987	104	8	5,700	28,200	28,700	4.95	0.98
1988	106	8	4,400	25,000	26,000	5.68	0.96
1989	107	8	2,900	10,000	15,000	3.45	0.67
1990	108	8	6,100	31,200	31,400	5.11	0.99
1991	102	8	6,400	32,400	34,800	5.06	0.93
1992	103	8	5,600	27,800	25,100	4.96	1.11
1993[b]	104	8	13,600	39,000	65,100	2.87	0.60
1994	105	8	11,200	34,800	59,100	3.14	0.59
1995	106	8	12,400	42,500	67,000	3.44	0.63
1996[b]	102	8	17,400	109,300	118,000	6.28	0.93
1997	103	8	8,700	32,100	26,300	3.69	1.22
1998	119	8	9,500	43,400	39,600	4.57	1.10
1999	120	8	13,200	103,100	81,700	7.81	1.26
2000	122	8	12,400	94,800	81,000	7.62	1.17
2001[b]	123	8	10,900	41,800	58,100	3.83	0.72
2002	117	8	7,800	26,600	39,700	3.41	0.67
2003	118	8	10,500	52,500	48,700	5.00	1.08
2004	136	8	8,800	26,700	42,800	3.02	0.62
2005	137	8	9,100	44,000	54,000	4.88	1.00
10-year average			10,830	57,430	58,990	5.01	0.98

[a] Season length and bag in Canyon County.
[b] New telephone survey methodology.

Table 9. Season framework and estimated turkey harvest in Idaho, 1983-present.

	General season framework			General season harvest			Controlled hunts			Total	Total
Year	Spring	Fall	Bag[a]	Spring	Fall	Total	Hunts	Permits	Harvest	harvest	tags sold[b]
1983	4/23-5/1		1	19		19				19	270
1984	4/25-5/10		1	17		17	4	70	26	43	312
1985	4/24-5/9		1	37		37	10	100	36	73	439
1986	4/14-5/11		1	88		88	24	150	52	140	571
1987	4/13-5/10		1	117		117	30	180	68	185	814
1988	4/11-5/8		1	153		153	28	232	85	238	1,395
1989	4/10-5/7		1	137		137	26	271	91	228	1,339
1990	4/9-5/6		1	185		185	17	226	106	291	1,436
1991	4/8-5/5		1	393		393	13	215	102	495	1,754
1992	4/13-5/10		1	532		532	14	310	130	662	2,020
1993	4/12-5/9		1	750		750	14	405	153	903	2,303
1994	4/11-5/8		1	1,130		1,130	25	350[c]	209	1,339	3,066
1995	4/10-5/7		1	1,314		1,314	29	466	212	1,526	3,929
1996	4/8-5/12		1	1,476		1,476	25	574	244	1,720	4,940
1997	4/14-5/11		1	2,451		2,451	10	528	252	2,703	5,114
1998	4/15-5/14		2	2,324		2,324	12	658	337	2,661	6,436
1999	4/15-5/25		3	4,916		4,916	12	1,205	542	5,458	16,781
2000	4/15-5/25	10/1-31	3	4,054	201	4,255	12	1,183	638	4,893	18,173
2001	4/15-5/25	9/15-30	3	2,987	844	3,831	9	1,094	652	4,483	21,233
2002	4/15-5/25	9/15-10/31	3	3,263	1,015	4,278	13	1,567	790	5,068	24,417
2003	4/15-5/25	9/15-10/31	2	4,221	2,111	6,332	11	382	159	6,491	21,639
2004	4/15-5/25	9/15-10/31	3	2,770	2,180	4,950	15	434	183	5,384	25,763
2005	4/15-5/25	9/15-10/31	3	4,064	2,213	6,277	14	408	186	6,463	32,654

[a] Bearded turkey only in spring hunts, either sex in fall hunts. Instituted a second spring tag in 1999 valid 10-25 May.
[b] Sportsman Package tags not included in total tags sold until 1998.
[c] One controlled hunt had unlimited permits; number of permits drawn unavailable.

Table 10. Turkey translocation history for Idaho, 1961-present.

Year	Sub-species[a]	Release site	Source	Birds released
1961	M	Unit 18	Colorado	17
1962	M	Unit 18	Colorado	11
1963	M	Unit 14	Colorado	11
1965	M	Unit 11	Unit 18	10
1966	M	Units 11, 39	Unit 14	14
1967	M	Unit 22		19
1970	M	Unit 32		14
1971	M	Unit 8	Unit 6	15
	M	Boundary County		60[b]
1972	M	Unit 8	Unit 6	2
	M	Boundary County		24[b]
1973	M	Units 8, 11	Unit 6	6
1979	M	Unit 31		5
1980	M	Unit 18	South Dakota	10
1982	M	Units 11, 14	South Dakota	31
	R	Unit 11A	KS, OK, TX	51
	R	Units 22, 38, 53, SE Region		115
	M	Units 22, 25, 32		38
1983	R	Unit 11A	Oklahoma, Texas	18
	M, R	Units 28, 39, 55		84
1984	R	Units 40, 55, SE Region		65
	R	Unit 63A	Texas	32
1985	R	Unit 13	Texas	34
	E	Unit 10A	Pennsylvania	16
	R	Units 28, 40		7
1986	M	Unit 8	Unit 22	34
	R	Unit 11	North Dakota	14
	M	Unit 39		17
	R	Unit 40		14
1987	M	Unit 39		20
1988	M	Units 8, 11A, 13	Units 11 & 22	83
	M	Units 39, 54		45
	R	Unit 63A	Unit 32A	12
1989	M	Unit 11A	Unit 10A	18
	R	Unit 38		14
1990	M	Unit 14	Unit 8	16
	E	Unit 10A	North Dakota	17
	M	Units 22, 31, 39, SE Region		156
1991	M	Units 11, 11A, 14	Units 1, 8, 9, 11	113
	E, R	Units 8A, 10A	North Dakota	80
	M	Units 28, 36B		40
1992	M	Units 11	Unit 1	28
	M	Units 11, 14	North Dakota	48
1993	M	Units 10A, 11, 14	Units 1, 3, 8	93
	M	Units 11, 13	North Dakota	49
	M	Units 21A, 31, 32A, 36B, 39, SE Reg.		260
	R	Units 32, 38		58

Table 10. Continued.

Year	Sub-species[a]	Release site	Source	Birds released
1994	M	Units 8, 11A, 14	Units 1, 8, 11A	90
	R	Units 38, 54		59
	M	Unit 32, SE Region		142
1995	M	Units 8, 11A, 14	Units 8, 11A	36
	M	Unit 33		57
	R	Unit 54		14
1996	M	Units 8, 11	British Columbia	63
	M	Units 11, 15	Units 8, 10A, 11A	54
	R	Units 38, 54		28
1997	M	Units 8A, 11, 13, 15, 18	Idaho	261
	R	Unit 32		35
	M	Units 31, 33		105
1998	M	Units 14, 18, 20, 32A, 33	Units 8, 10A, 11, 15	121
	M	Units 31, 32, 39		53
	R	Units 32, 54		92
1999	M	Units 15, 23	Unit 10A	64
	R	Units 32, 54		62
	M	Units 28, 37, 39, 50		140
	U	SE Region		15
2000	M	Units 11, 13, 14, 15, 18, 63A	Idaho	332
	U	SE Region		50
2001	M	Units 15, 63A	Idaho	436
	R	Unit 54	California	41
	U	Unit 71		136
2002	M	Units 10A, 11, 14, 15, 63A, 67, 69	Idaho	227
2003	H	Units 11, 63A, 67, 69	Units 1, 39	196
2004	M	Units 5, 8A, 11, Nevada	Idaho	227
2005	M	Units 5, 11, 13, 15, 33, 39, 54, Nevada	Units 1, 3, 13, 54	227
2006	M	Unit 1, 4A, 11, 39	Units 1	220
Total				5,521

[a] E = Eastern, H = Hybrid, M = Merriam's, R = Rio Grande, U = Unknown.
[b] Approximate number of game farm birds released in Boundary County by private citizens.

Table 11. Mourning dove call-count survey results for Idaho, 1993-present.

Year	Region 1	Region 2	Region 3	Region 4	Region 5	Region 7
1993						
Routes (miles) counted		2	(580)	28 (575)	3	(20)
Doves per mile		0.20	0.3	1.8	0.7	0.05
1994						
Routes (miles) counted	3 (60)	2	(560)	28 (575)	3	(20)
Doves per mile	0.22	0.30	4.6	3.3	0.9	0.05
1995						
Routes (miles) counted	3 (60)	2	(480)	28 (575)	3	(20)
Doves per mile	0.10	0.10	2.2	1.8	0.6	0.10
1996						
Routes (miles) counted	3 (60)	1	(260)	28 (575)	3	(0)
Doves per mile	0.30	0.02	2.3	2.2	0.4	
1997						
Routes (miles) counted	3 (60)	1	(660)	28 (575)	3	(20)
Doves per mile	0.30	0.15	2.2	2.2	0.7	0.00
1998						
Routes (miles) counted	3 (60)	1	(640)	28 (575)	3	(0)
Doves per mile	0.23	0.30	1.6	2.4	0.5	
1999						
Routes (miles) counted	3 (60)	1	(540)	28 (575)	3	(20)
Doves per mile	0.40	0.15	3.9	3.7	0.5	0.00
2000						
Routes (miles) counted	3 (60)	1	(540)	28 (575)	3	(20)[a]
Doves per mile	0.33	0.15	3.3	1.3	0.4	0.00
2001						
Routes (miles) counted	3 (60)	1	(620)	28 (575)	3	(20)
Doves per mile	0.17	0.10	3.2	2.2	0.2	0.15
2002						
Routes (miles) counted	2 (40)	2	(600)	28 (575)	3	(20)
Doves per mile	0.33	0.13	2.4	2.5	1.1	0.30
2003						
Routes (miles) counted	2 (40)	2	(540)	28 (575)	3	(20)
Doves per mile	0.43	0.05	2.6	3.4	0.6	0.35
2004						
Routes (miles) counted		2	(500)		3	(20)
Doves per mile		0.29	2.6		0.6	0.05
2005						
Routes (miles) counted	2 (40)	1	(460)	28 (573)	3	(20)
Doves per mile	1.80	0.40	4.0	4.1	0.6	0.60

[a] Route relocated.

Table 12. Mourning doves banded in Idaho, 2003-present.

Year	Adult					
	Male	Female	Unknown	Hatch-year	Unknown	Total
2003	125	97	14	204	7	447
2004	313	124	50	370	0	857
2005	270	180	69	318	2	839
Total	708	401	133	892	9	2,143

Table 13. Estimated cottontail rabbit and snowshoe hare harvest in Idaho, 2003-present.

	Cottontail rabbit		Snowshoe hare	
Year	Hunters	Cottontails harvested	Hunters	Hares harvested
2003	4,043	26,157	619	1,488
2004	4,460	27,500	1,100	2,000
2005	2,890	17,000	590	2,540
3-year average	3,798	23,552	770	2,009

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Upland Game Surveys and Inventories
PROJECT:	W-170-R-30		
SUBPROJECT:	1	**STUDY NAME:**	Upland Game and Waterfowl Population Status and Trends
STUDY:	II		
JOB:	1		

PERIOD COVERED: April 1, 2005 to March 31, 2006

PANHANDLE REGION

Trapping and Translocation

No trapping or translocation took place in Panhandle Region for pheasant, quail, forest grouse, gray partridge, or mourning dove during the reporting period.

Pheasant

Abstract

For many years, the Department released game-farm birds in spring prior to nesting and released cocks prior to the season opener to bolster declining wild populations and hunter success rates. Fewer and fewer landowners were willing to allow hunter trespass if pheasants were released on their property. Consequently, the Department's Coeur d'Alene River WMA near Harrison ended up being the only place available to release birds. In 1981, the region recommended that all pheasant releases be discontinued and the program was eliminated effective fall 1982.

Harvest Characteristics

Most pheasant hunting in Panhandle Region occurs in the Palouse country around Worley, Plummer, and Tensed. Remnant wild populations still occur and provide fair hunting for those people who have permission to hunt on private land. A telephone survey of 2005 upland game hunters estimated that 1,214 hunters harvested 3,993 pheasants in 2005 (Table 1). Because pheasant hunting effort is low, harvest estimates are imprecise and only general trends may be inferred from these data at the regional level.

Management Implications

The quality and quantity of pheasant habitat in Panhandle Region has declined to a low point due to modern, clean farming techniques and monoculture crops. Large complexes of seed-bluegrass fields are burned annually, severely limiting habitat. The Department no longer supplements the wild population nor releases birds directly for harvest. There is growing public sentiment against the large-scale field burning in the Palouse. If burning becomes severely restricted in the future,

pheasant cover will improve, and additional grain farming could substantially improve pheasant populations.

Quail

Abstract

Quail in Panhandle Region are present at low population levels associated with agricultural lands, hay production and pasture areas, and urban interface areas where they often receive supplemental winter feeding. Population levels are low as a result of the area's annual snowfall and cool, wet springs that reduce chick survival but can fluctuate in years with minimal snow accumulation. Drier weather has prevailed since 1998, resulting in somewhat higher quail populations.

Harvest Characteristics

Quail hunting effort in Panhandle Region is very low. Harvest information obtained from the statewide telephone survey indicates an estimated 241 quail hunters harvested 1,065 quail during 2005 (Table 2). Because quail hunting effort is low, harvest estimates are imprecise and only general trends may be inferred from these data at the regional level.

Management Implications

As a result of a series of mild winters and higher quail populations, Panhandle Region was included with other parts of the state that offered a quail hunting season beginning in 2003. Low hunter participation and limited access to quail in the urban interface is not anticipated to negatively impact the Panhandle quail population or produce significant levels of harvest.

Forest Grouse

Abstract

Few hunters take the time to hunt primarily for grouse. All 3 species of forest grouse are usually taken incidental to other activities and usually in conjunction with driving down the road.

Harvest Characteristics

A telephone survey of 2005 upland game hunters estimated that 6,016 hunters harvested 27,888 forest grouse in 2005 (Table 3).

Climatic Conditions

Wet, cold spring weather in northern Idaho is the rule rather than the exception. Adverse spring weather can limit the production and survival of forest grouse young for several years at a time. A general slowing of logging during the past 2 decades has likely been detrimental to grouse populations in the Panhandle, particularly for ruffed and blue grouse.

Management Implications

Grouse populations in the Panhandle are driven by large-scale influences on early seral stages. Logging and wildfire are both less prevalent now than they were 40 years ago. On a proximate scale, grouse abundance is heavily influenced by spring weather, much as it is in other portions of their range. Hunting is a negligible influence on grouse populations, and season changes do not need to be adjusted to influence grouse populations.

Gray Partridge

Abstract

Gray partridge in Panhandle Region are associated with agricultural lands near Worley, Plummer, Harrison, and Post Falls. Widespread burning of crop residues in August and September eliminates most potential food and cover patches that would help gray partridge survive the winter months. Intensive farming also contributes to fewer gray partridge by eliminating permanent cover patches, annual weeds that serve as food sources, wind breaks, fence rows, and riparian zones.

Harvest Characteristics

Gray partridge hunting effort in Panhandle Region is very low. A few hunters are checked on the Rathdrum Prairie and the rolling hill country near Worley and Plummer. Historic harvest information obtained from the statewide telephone survey is believed to reflect, almost entirely, Panhandle Region hunters hunting in other regions. Harvest information obtained from the statewide telephone survey indicates an estimated 524 gray partridge hunters harvested 922 birds during 2005 (Table 4). Because gray partridge hunting effort is low, harvest estimates are imprecise and only general trends may be inferred from these data at the regional level.

Management Implications

Gray partridge are taken largely incidental to pheasant hunting. Seasons should be set to match those in adjacent portions of the state where gray partridge are taken more commonly.

Wild Turkey

Harvest Characteristics

The 2005 spring season success rate was 9.6 hunter days per bird (Table 5). Hunters averaged less days to harvest a fall turkey in 2005 (8.2 days/bird) than in 2004 (11.5 days/bird).

Trapping and Translocation

Trapping and removal of turkeys typically occurs in the winter months to alleviate damage to fields, buildings, and equipment where turkeys congregate in large numbers. Winter 2005-2006 was fairly normal with adequate snow accumulation to compel wild turkeys to congregate on private properties and create complaints about excessive numbers of turkeys from landowners.

During winter 2005-2006, a total of 220 turkeys (146 hens and 74 toms) were trapped in Unit 1 (Table 6). Turkeys were transplanted to Cottonwood Creek near Boise (40 hens, 20 toms), Willow Creek near Boise (13 hens, 12 toms), and Craig Mountain WMA near Lewiston (38 hens, 18 toms). The additional captured turkeys were relocated within the Panhandle Region to Boundary Creek WMA (18 hens, 18 toms) and Granite Creek on the east side of Lake Pend Oreille (37 hens, 6 toms).

Management Implications

A series of mild winters have allowed the growth and spread of turkey populations throughout northern Idaho.

Mourning Dove

Population Surveys

Mourning doves are common in Panhandle Region and, in some areas, are locally numerous. Most mourning doves are found during summer around agricultural lands near Worley, Plummer, Harrison, Post Falls, and Bonners Ferry.

In May 2005, 2 call-count surveys were completed in Panhandle Region (Table 7). One route was in Kootenai County, and 1 was in Shoshone County. A third route that is conducted in Boundary County is no longer reported in this document. Number of mourning doves heard per mile has increased slightly during the past 12 years, with exception of the past 2 years. Route replacement during 1993 precludes direct comparison of subsequent route data with that prior to 1993.

Harvest Characteristics

In north Idaho, most mourning doves leave before the season opens. The season opener (Sep 1) coincides with the first cool evening temperatures of late August. Also, for most of the grain and grass seed, farmers burn their fields after harvest annually. Starting in mid-August and ending in late September, most cover and food patches are consumed by fire.

Mourning dove hunting effort in Panhandle Region is very low. A few hunters are checked on opening day on Harrison Flats and near Athol on the edge of the Rathdrum Prairie. Harvest information on mourning doves is collected via the U.S. Fish and Wildlife (USFWS) harvest survey. No regional telephone harvest survey has been conducted since 1995.

Management Implications

Widespread burning of crop residues practiced by area farmers coupled with the first cool evening temperatures of late August usually combine to move mourning doves south out of the region before hunting season opens.

Snowshoe Hare

Background

Snowshoe hares are prevalent throughout the coniferous forest in Panhandle Region. Hare densities are considered to be low compared to other, more traditional hare habitats at higher latitudes. Hare densities within Panhandle Region vary widely dependent upon habitat types and timber harvest.

Snowshoe hare hunting effort in Panhandle Region is very low. Harvest information obtained from the statewide telephone survey indicates an estimated 87 hunters harvested 48 hares during 2005 (Table 8). Because snowshoe hare hunting effort is low, harvest estimates are imprecise and only general trends may be inferred from these data at the regional level.

Management Implications

Low hunter participation and limited harvest is not anticipated to negatively impact the Panhandle snowshoe hare population.

American Crow

The American crow will continue to be a species with no active management.

Table 1. Estimated pheasant harvest, Panhandle Region, 1983-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
1983	2,205	3,616	5,806	1.6	0.8
1984	907	2,565	3,966	2.8	0.7
1985	633	1,053	2,814	1.7	0.4
1986	522	1,725	1,865	3.3	0.9
1987	630	1,454	2,151	2.3	0.7
1988	570	1,184	2,358	2.1	0.5
1989	447	785	1,305	1.8	0.6
1990	409	1,590	1,606	3.9	1.0
1991	513	1,430	2,281	2.8	0.6
1992	755	1,658	2,854	2.2	0.6
1993	1,175	3,371	5,597	2.9	0.6
1994	899	3,165	4,270	3.5	0.7
1995	853	2,376	5,097	2.8	0.5
2001	354	421	2,379	1.2	0.2
2002	1,122	4,240	7,116	3.8	0.6
2003	749	2,028	2,399	2.7	0.9
2004	854	4,325	3,096	5.1	1.4
2005	1,214	3,993	4,468	3.3	0.9
3-year avg.	939	3,449	3,321	3.7	1.0

[a] Telephone survey data at the regional level were not collected from 1996-2000.

Table 2. Estimated quail harvest, Panhandle Region, 2003-present.

Year	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2003	123	707	370	5.8	1.9
2004	282	1627	1725	5.8	0.9
2005	241	861	830	3.6	1.0
3-year avg.	215	1,065	975	5.1	1.3

Table 3. Estimated forest grouse harvest, Panhandle Region, 1983-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
1983	7,982	44,208	58,622	5.5	0.8
1984	7,432	41,867	54,597	5.6	0.8
1985	6,637	30,357	46,714	4.6	0.6
1986	7,194	35,138	55,203	4.9	0.6
1987	4,963	26,546	33,394	5.3	0.8
1988	5,710	34,504	46,580	6.0	0.8
1989	6,491	41,719	68,443	6.4	0.6
1990	6,088	45,665	60,079	7.5	0.8
1991	6,339	29,564	51,235	4.7	0.6
1992	5,440	29,088	46,949	5.3	0.6
1993	13,823	59,496	129,103	4.3	0.5
1994	20,509	118,877	196,623	5.8	0.6
1995	22,866	110,007	217,049	4.8	0.5
2001	4,473	19,727	35,964	4.4	0.5
2002	5,799	29,688	48,516	5.1	0.6
2003	5,918	30,746	45,273	5.2	0.7
2004	6,086	28,548	53,736	4.7	0.5
2005	6,016	27,888	40,880	4.6	0.7
3-year avg.	6,006	29,061	46,629	4.8	0.6

[a] Telephone survey data at the regional level were not collected from 1996-2000.

Table 4. Estimated gray partridge harvest, Panhandle Region, 1983-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
1983	1,057	3,873	2,703	3.7	1.4
1984	305	629	1,097	2.1	0.6
1985	174	361	782	2.1	0.5
1986	83	546	266	6.6	2.0
1987	148	599	447	4.0	1.3
1988	109	221	341	2.0	0.6
1989	127	134	182	1.1	0.7
1990	149	416	503	2.8	0.8
1991	97	385	347	4.0	1.1
1992	185	1,006	894	5.4	1.1
1993	495	1,546	2,628	3.1	0.6
1994	450	1,704	2,341	3.8	0.7
1995	366	2,376	5,706	6.5	0.4
2001	99	20	196	0.2	0.1
2002	132	83	498	0.6	0.2
2003	198	506	566	2.6	0.9
2004	78	250	301	3.2	0.8
2005	524	922	1,887	1.8	0.5
3-year avg.	267	559	918	2.5	0.7

[a] Telephone survey data at the regional level were not collected from 1996-2000.

Table 5. Estimated turkey harvest, Panhandle Region, 1984-present.

Year Hunt	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
1984						
Controlled	2	50	44	22	6.9	152
1985						
Controlled	2	50	39	21	8.0	167
1986						
Controlled	6	75	49	33	7.0	231
1987						
Controlled	6	75	57	37	6.1	227
1988						
Controlled	6	135	75	58	7.0	407
1989						
Controlled	6	180	118	74		
1990						
Controlled	6	180	147	97		
1991						
Controlled	9	195	187	99	5.2	518
1992						
Controlled	12	300	285	123	7.1	875
1993						
Controlled	12	395	219	155	7.5	1,165
1994						
Controlled	23	457	409	206	5.9	1,223
General	1		256	77	10.0	769
1995						
Controlled	23	436	417	203	5.5	1,117
General	1		557	86	23.9	2,057
1996						
Controlled	17	435	444	221	6.3	1,402
General	1		1,043	192	19.1	3,671
1997						
Controlled	2	450	398	216	4.9	1,059
General	1		2,223	643	13.4	8,632
1998						
Controlled	2	450	389	225	5.7	1,287
General	1		1,534	464	10.7	4,972
1999[a]						
Controlled Spring	2	525	479	284	6.0	1,680
General Spring	1		3,503	815	15.4	12,537
Controlled Fall	1	400	205	106	4.0	424
2000						
Controlled Spring	2	525	464	232	6.2	1,431
General Spring	1		3,140	799	14.0	11,206
Controlled Fall	1	500	131	81	2.2	175
2001						
Controlled Spring	1	525	475	232	9.1	2,113
General Spring	1		1,490	363	15.2	5,503
General Fall	1		456[b]	268	4.5	1,208

Table 5. Continued.

Year Hunt	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
2002						
Controlled Spring	1	525	567	426	7.2	3,100
General Spring	1		1,173	379	11.4	4,350
Late Spring/Fall[b]	1		524	110	17.8	1,968
2003						
Controlled	0					
General Spring	1		1,990	522	15.1	7,909
Late Spring	1		573	360	6.6	2,369
General Fall	1		1,053	495	8.5	4,204
2004						
General Spring[c]	1			815	12.3	9,995
General Fall	1		1,590	564	11.5	6,466
2005						
General Spring[c]	1		2,988	1,045	9.6	10,081
General Fall	1		1,477	616	8.2	5,058

[a] Multiple bird bag limits and fall seasons began in 1999.
[b] The general late spring/fall tag allowed harvest after 1 May in spring or fall seasons.
[c] Includes regular and late spring hunter and harvest information.

Table 6. Turkey translocation history, Panhandle Region, 1983-present.

Year	Release site	Source	Birds released	New or supplemental release
1983	Units 1, 3	Panhandle	29	S
1984	Unit 3	Panhandle	13	S
1985	Unit 1	Panhandle	31	N
1986	Unit 1	Panhandle	13	S
	Unit 3	Panhandle	17	N
1987	Units 1, 4A	Panhandle	70	S
	Units 2, 4A	Panhandle	70	N
1988	Unit 1	Panhandle	27	S
	Units 3, 4	Panhandle	45	N
1990	Units 3, 6	Panhandle	44	S
	Units 1, 3	Panhandle	62	N
1991	Unit 5	Panhandle	35	N
	Big Canyon Creek-Unit 11	Dawson Ridge-Unit 1	35	S
1992	Unit 2	Panhandle	119	N
	Lawyers Creek-Unit 11	Kootenai River-Unit 1	28	N
1993	Unit 1	Panhandle	14	S
	Units 2, 3	Panhandle	90	N
	Units 10A, 11, 14	Units 1, 3	64	S
1994	Units 1, 2, 5	Panhandle	46	S
	Units 2, 5	Panhandle	129	N
	Units 8, 14	Unit 1	43	N
1995	Unit 5	Panhandle	19	S
	Units 2, 5, 6	Panhandle	168	N
1997	Units 1, 2, 3, 4, 5	Panhandle	177	
	Rice Creek-Unit 13	Panhandle	34	N
	Nora Creek-Unit 8A	Panhandle	43	N
1998	Units 1, 2, 3, 4, 5	Panhandle	246	
1999	Units 1, 5	Panhandle	21	
	Salmon Region	Bonners Ferry-Unit 1	60	N
	California	Panhandle	189	
2000	Panhandle	Panhandle	111	
2002	Southern Idaho	Panhandle	456	
2003	Upper Snake Region	Boundary County	128	
2004	Nevada	Boundary County	22	
	Units 3, 5	Units 1, 3	56	
2005	Unit 5	Units 1, 3, 4	90	
2006	Unit 39	Unit 1	85	
	Unit 11	Unit 1	56	
	Units 1, 4A	Unit 1	79	

Table 7. Mourning dove call-count survey results, Panhandle Region, 1994-present.

Year	Routes (miles) counted	Doves heard	Doves seen	Doves heard/mile	Doves seen/mile
1994	3 (60)	13	8	0.22	0.13
1995	3 (60)	6	4	0.10	0.07
1996	3 (60)	18	19	0.30	0.32
1997	3 (60)	18	19	0.30	0.32
1998	3 (60)	14	4	0.23	0.07
1999	3 (60)	24	9	0.40	0.15
2000	3 (60)	20	9	0.33	0.15
2001	3 (60)	10	9	0.17	0.15
2002	2 (40)	13	7	0.33	0.18
2003	2 (40)	17	8	0.43	0.20
2004	2 (40)	4	2	0.1	0.05
2005	2 (40)	3	2	1.8	0.05
10-year average		14.1	9.5	0.27	0.18

Table 8. Estimated snowshoe hare harvest, Panhandle Region, 2003-present.

Year	Hunters	Hares harvested	Days hunted	Hares per hunter	Hares per hunter day
2003	56	59	142	1.0	0.4
2004	254	905	1,043	3.6	0.9
2005	87	48	126	0.6	0.4
3-year avg.	132	337	437	1.7	0.6

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Upland Game Surveys and Inventories
PROJECT:	W-170-R-30		
SUBPROJECT:	2	**STUDY NAME:**	Upland Game and Waterfowl Population Status and Trends
STUDY:	II		
JOB:	1		

PERIOD COVERED: April 1, 2005 to March 31, 2006

CLEARWATER REGION

Climatic Conditions

Clearwater Region experienced normal snow pack for the water year 2005-2006 according to Natural Resources Conservation Service Idaho Basin Outlook Report. The Clearwater River Basin was 97% of the 30-year average of snow water (Oct-Jun), with total precipitation percent of average at 112%. Snow depth was 100% of average for the basin with peak snow depth accumulation not until April at the highest elevations. Meanwhile, the Salmon River Basin averaged 121% of snow water with a total precipitation percent of average at 132%. Snow depth was slightly above normal at the higher elevations where melting did not occur, although at lower elevations snow depths were normal. Snowfall was good throughout the winter in the region with large accumulations persisting to provide adequate run-off. Spring storms that raised total precipitation to above average levels consisted of heavy intermittent rain showers which may have affected the survival rate of newly hatched/born upland game species.

Trapping and Translocation

No trapping or translocation took place in Clearwater Region for pheasant, California quail, forest grouse, sharp-tailed grouse, chukar, or gray partridge during the reporting period.

Pheasant

Population Surveys

In 1990, 11 brood routes were established in Clearwater Region, with primary emphasis directed at better monitoring pheasant population trends. A twelfth route was added in 2001. One hundred ninety-nine pheasants were observed on these routes in 2005 (Table 1). The total number observed was the highest since the counts were begun in 1990. This was a reflection of last year's high count and high juvenile to adult ratio. Conversely, the percentage of unsuccessful females in 2005 increased to 48% while brood size fell below the 10-year average of 5.5. Other species recorded on the routes included quail, gray partridge, doves, cottontail rabbits, and a variety of raptors.

Harvest Characteristics

A telephone survey estimated that 2,487 hunters harvested 14,054 pheasants in 2005 (Table 2). Birds per hunter-day (0.9) exceeded values for both 2004 and the previous 3-year average. Brood survey results indicate increased production that, along with a season extension of 2 weeks that began in 1996, have improved harvest opportunities.

Management Implications

Populations in north Idaho have been at reduced levels since 1983. An abundance of fields of small grains and adjacent idle uplands provides adequate nesting cover for pheasants in the Clearwater Region. Limiting factors are inadequate winter cover and/or inadequate winter food adjacent to winter cover. Development of scattered, permanent wintering areas that can provide adequate food and cover in those portions of the region where they are lacking would allow pheasant populations to increase.

The Department began working with U.S. Soil Conservation Service and U.S. Agricultural Stabilization and Conservation Service regarding the CRP program in 1986 and has continued this cooperation since that time. This program has great potential to increase upland game populations in the future. Clearwater Region will continue to place high priority on its involvement with this program.

In 1987, the Department also initiated a statewide HIP program for upland game directed primarily toward pheasants, quail, gray partridge, and chukar. This program, in conjunction with CRP and the Department's new Pheasant Initiative program, have great potential to positively affect upland game populations, particularly pheasants.

California Quail

Population Surveys

No reliable population surveys are currently conducted for California quail in Clearwater Region.

Harvest Characteristics

Telephone survey data estimated that 1,545 hunters harvested 14,120 quail in Clearwater Region in 2005 (Table 3). These values represented a 30% decline in birds per hunter from 2004.

Management Implications

Availability of quail habitat probably will not change dramatically in the next few years. California quail continue to be a lightly hunted species in the region, and management will continue to be directed at maximizing hunting opportunity through liberal, standardized seasons and bag limits.

Mountain Quail

Abstract

Populations of mountain quail are limited to a few scattered sites ranging from Lewiston to Riggins, primarily adjacent to the Salmon River. The results of a mountain quail research project that was conducted from 1991-1996 are available for review. Mountain quail were transplanted into Unit 11 in spring 2005 and 2006 as part of a new quail project initiated in 2004.

Population Surveys

The season on mountain quail was closed in 1984 because of concern for declining populations. Mountain quail population fluctuations are difficult to monitor, but it is generally believed that they have declined during the past 20 years due to unknown causes. These declines are probably the result of subtle habitat changes unfavorable to mountain quail.

A graduate student research project on mountain quail was conducted from 1991-1996. Its focus shifted from spring/summer habitat use and seasonal movements to fall/winter emphasis in 1994. The project generated several reports, 2 management plans, several popular articles and a technical manuscript on the work. Results include information on seasonal habitat use and survival in Idaho as well as new habitat and population survey techniques. A summary of this work is provided in a 2004 IDFG report by Ann Moser and available at the Boise IDFG office.

Trapping and Translocation

Another mountain quail project was begun in spring 2004 in the Craig Mountain area. Mountain quail were transplanted into Unit 11 in spring 2005, and 50 of the 72 transplanted quail were fitted with radio transmitters. An additional 89 mountain quail (50 radio-equipped) from Oregon were transplanted onto Craig Mountain WMA in spring 2006. Further details are available in the annual IDFG research progress report for the study.

Forest Grouse

Population Surveys

Random brood counts and drumming route counts were discontinued in 1988. Presently, none of these surveys are conducted to monitor population trends or predict fall harvest.

Harvest Characteristics

Collections of random field check harvest data were discontinued in 1988. Regional telephone harvest survey information on forest grouse has been variable (Table 4). Harvest information was not collected at the regional level from 1996-2000 due to budgetary constraints. Telephone survey data for the region estimated that 4,675 hunters harvested 20,735 forest grouse in 2005. Birds harvested per hunter was similar to 2004 and the previous 3-year average.

Management Implications

The limited amount of data currently collected on forest grouse and lack of standard techniques for collecting it precludes its effective use for management purposes. There are few avid forest grouse hunters in Clearwater Region. Most grouse are currently harvested incidentally to hunting for other species, and many are taken from or immediately adjacent to forest roads during the opening weeks of big game seasons. Therefore, many areas of the region are lightly hunted.

Sharp-tailed Grouse

Population Characteristics

Substantial populations of Columbian sharp-tailed grouse were found in this area during the early 1920s but were believed to have been eliminated by the mid-1930s. Factors contributing to the decline and eventual loss of the species from the area were over-hunting, overgrazing by livestock, and intensified agricultural practices resulting in habitat destruction.

Harvest Characteristics

There has been no hunting season for sharp-tailed grouse in Clearwater Region for several decades.

Management Implications

It is extremely difficult to reestablish populations of sharp-tailed grouse by translocating relatively small numbers of birds in the spring. Future efforts to reestablish populations may require increased sample sizes and more extensive post-release monitoring.

Chukar

Population Surveys

No distribution surveys of chukar are conducted in Clearwater Region. In general, the majority of chukars within the region are located along the breaks of the Snake, Salmon, and Clearwater rivers.

A chukar ecology project in Unit 11 was conducted from spring 1995 to 1997. Radio-marked chukars along the breaks of the Salmon and Snake rivers were monitored to define habitat use, movements, distribution patterns, nesting chronology and success, and overall mortality causes and rates. A final report was completed in 1998.

Since 1985, the breaks of the Snake River have been scheduled for annual surveys from Tenmile Creek upstream to Corral Creek by helicopter (Table 5). Since 1991, the Salmon River breaks from White Bird to Maloney Creek have also been scheduled to be surveyed annually. It appears that helicopter surveys may be a useful index to determine trends in fall chukar populations.

Although other factors are apparently involved when predicting fall harvest, general trends appear predictable based on the surveys.

Harvest Characteristics

Fluctuating harvest rates over the past several years apparently reflect stochastic variables, possibly weather impact, on productivity. Telephone survey data estimated that 1,450 hunters harvested 13,115 chukars in 2005 (Table 6). Although hunter numbers decreased by 21% from 2004, total harvest remained virtually unchanged. Birds per hunter (9.1) and birds per hunter-day (2.2) were the highest recorded in the past 20 years.

Management Implications

Annual chukar populations, like most upland game, are greatly influenced by weather conditions during the nesting and brood-rearing seasons. Current season lengths and bag and possession limits apparently do not need to be reduced for chukar during periods of population lows.

Gray Partridge

Population Surveys

No standardized population surveys are currently conducted for gray partridge in the Clearwater Region. However, numbers of gray partridge counted incidentally in 2005 on the 12 Clearwater Region pheasant brood routes indicate an increase in productivity from the 2004 survey (+160%) and the 2000-2004 average (+12%).

Harvest Characteristics

Harvest information on gray partridge has varied (Table 7). This year it was estimated that 1,210 hunters harvested 7,730 gray partridge.

Management Implications

Favorable weather during early summer will allow populations to remain at current levels. Adjustments in season length or bag and possession limits are apparently unnecessary to accomplish population increases during or following population lows caused by adverse nesting and/or winter weather conditions.

Wild Turkey

Population Surveys

The Department does not have a reliable survey method for estimating turkey numbers. However, population status and trend can be inferred to a limited degree from harvest trend, turkey distribution, and general impressions of bird numbers from year to year. This information suggests that turkey numbers are stable and the distribution of turkeys is widespread throughout the region. Turkeys continue to expand their range into previously unoccupied habitat.

A turkey research project was conducted in Unit 11 in the early 1990s. Among the more interesting findings were the long-distance seasonal movements of turkeys between Cottonwood and Waha, exceptionally high productivity among young birds, and relatively low hunting-related mortality. Nesting and roosting habitat do not appear to be limiting in this area.

Harvest Characteristics

Turkey harvest estimates have been calculated on a management unit basis since 1983 (Table 8). Regional turkey harvest had increased until 1999 and was a function of expanding turkey distribution and numbers and increasing hunter effort. General season spring and fall turkey hunting was available in 2005. Turkey harvest in Clearwater Region reached a new high of 2,932 turkeys in 2005. The fall harvest component was estimated at 979 birds with more than half taken during the late season on private property.

Winter Feeding

Landowners in some areas traditionally feed flocks of wintering birds. Feeding is often associated with livestock feedlots. Because of average to below-average winter weather severity in most recent years, it has not been necessary to initiate any Department-sponsored feeding operations. However, feed was sometimes supplied upon request to private individuals who had large numbers of turkeys on their property or if turkeys were negatively impacting livestock operations or in areas with significant snowfall and corresponding lack of natural winter feed. The more recent expansion of fall turkey hunting opportunities in the region has also reduced the necessity to respond to sites that were previously the focus for feeding/trapping efforts.

Trapping and Translocation

Trapping efforts are now focused on sites where turkeys have become a nuisance on private property by contaminating livestock feed or by damaging agricultural crops as they begin to emerge. No turkeys were trapped in the Clearwater Region in winter 2005-2006, but 56 birds trapped in the Panhandle Region were released in Clearwater Region on Craig Mountain WMA (Table 9). Temporary personnel time was, in part, funded by a donation from the National Wild Turkey Federation. As translocation stock becomes available, those birds will be used to supplement areas with heavy hunting pressure or declining population trends.

Management Implications

Wild turkeys continue to expand their range within Clearwater Region. More remote areas, once thought to be marginal habitat, now have at least a few turkeys present for at least a portion of the year. To respond to a growing level of complaints from private landowners that keep livestock in feedlots in winter, liberal seasons have been maintained or expanded, and birds have been trapped and transplanted to other areas in the region, to other IDFG regions, or to other states. The present hunting season structure does not appear to adversely impact the expansion of populations.

Mourning Dove

Population Surveys

There are only 2 mourning dove call-count routes conducted in Clearwater Region. Due to changes in personnel and timing issues, only 1 route was completed in 2005. By themselves, the routes do not provide an accurate index to dove production or population trend (Table 10). However, when incorporated into the results from all other routes in the state, an accurate index to statewide dove production may be achieved.

Harvest Characteristics

Harvest information on mourning doves is collected via the USFWS harvest survey. No regional telephone harvest survey has been conducted since 1995.

Trapping and Banding

Clearwater Region has participated in a statewide effort to trap and band mourning doves since 2003 (Table 11). A delayed start and problems with trap-site selection resulted in no doves trapped in 2003. In 2004, a total of 63 doves were banded at 3 sites. All doves received a standard leg band; hatch-year doves also received a reward band. In 2005, a total of 100 doves were banded at 2 sites. Four individuals were recaptured during the course of the 2005 season (2 adult males and 2 hatch-year birds). All doves received a standard leg band in 2005.

Management Implications

Dove management in Clearwater Region consists of permitting an annual hunting season as liberal as the federal season framework allows and conducting the annual call-counts on routes located within the region.

Cottontail Rabbit

Population Surveys

There is no reliable measure of cottontail production or population trend in the region, and it is not known what effect weather has on production. Lack of adequate brush for winter cover adjacent to adequate food is probably limiting for cottontails on much of the unforested upland areas in Clearwater Region.

Harvest Characteristics

Cottontail harvest appears to be well under minimum sustainable levels. Reported harvest in 2005 was 691 with an estimated 82 hunters participating (Table 12).

Management Implications

Management direction for cottontail rabbits in Clearwater Region is to provide maximum hunter opportunity through liberal seasons and bag limits. Cottontails are lightly hunted, and liberal seasons and regulations apparently do not adversely impact cottontail numbers.

Snowshoe Hare

Population Surveys

There is no measure of populations, production, or trends in the region. Hare populations may be cyclic in nature and dependent upon forage availability, disease, and other density-dependent factors. Populations appear scattered and localized, with spruce-fir forest in young age classes as dominant cover in preferred habitat.

Harvest Characteristics

Harvest levels are likely below sustainable levels. Reported harvest in 2005 was 149 snowshoe hares with an estimated 110 hunters participating (Table 12); however, harvest levels have probably continued to be relatively insignificant.

Management Implications

Management direction of snowshoe hares in Clearwater Region is to provide maximum hunter opportunity through liberal seasons and bag limits. Management direction to promote hare hunting would probably have little effect on hare populations.

American Crow

The American crow will continue to be a species with no active management.

Table 1. Pheasant population characteristics and production, Clearwater Region, 1990-present.

Year	Routes (miles) counted	Birds per mile	Percent unsuccessful females	Juv:100 adult females	*n*	Average brood size
1990	11 (220)	0.7		153		
1991	11 (220)	0.3	13	550	56	6.0
1992	11 (220)	0.8	41	517	164	5.9
1993	11 (220)	0.2	33	667	35	5.8
1994	11 (220)	0.8	13	508	165	6.1
1995	11 (220)	<0.1	100	0	1	0.0
1996	11 (220)	0.1	33	100	27	5.5
1997	11 (220)	0.3	0	771	61	7.7
1998	11 (220)	0.4	33	456	93	6.1
1999	11 (220)	0.2	40	385	41	5.4
2000	11 (220)	0.4	37	321	95	5.1
2001[a]	12 (240)	0.5	43	478	119	6.1
2002	12 (240)	0.2	23	388	46	5.0
2003	12 (240)	0.5	9	347	114	3.6
2004	12 (240)	0.8	32	763	187	6.0
2005	12 (240)	0.8	48	226	199	4.5
10-year average		0.4	40	424	94	5.5

[a] New route added for Clearwater Pheasant Initiative in 2001.

Table 2. Estimated pheasant harvest, Clearwater Region, 1985-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
1985	3,775	15,295	25,304	4.1	0.6
1986	4,022	13,689	20,089	3.4	0.7
1987	3,360	11,069	18,415	3.3	0.6
1988	2,041	5,312	11,314	2.6	0.5
1989	2,105	7,368	10,739	3.5	0.7
1990	2,299	14,928	17,440	6.5	0.9
1991	2,170	7,773	12,775	3.6	0.6
1992	2,400	9,644	17,009	4.0	0.6
1993	4,638	15,245	27,892	3.3	0.5
1994	4,533	16,313	25,547	3.6	0.6
1995	3,330	10,235	18,135	3.1	0.6
2001	3,021	13,092	16,146	4.3	0.8
2002	3,713	7,159	12,768	1.9	0.6
2003	2,700	13,437	17,957	5.0	0.7
2004	2,368	9,844	13,674	4.2	0.7
2005	2,487	12,632	14,054	5.1	0.9
3-year avg.	2,518	11,971	15,228	4.8	0.8

[a] Telephone survey data at the regional level were not collected from 1996-2000.

Table 3. Estimated quail harvest, Clearwater Region, 1985-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
1985	1,148	11,588	6,803	10.1	1.7
1986	808	7,190	4,845	8.9	1.5
1987	1,051	7,834	4,467	7.5	1.8
1988	1,032	7,744	5,165	7.5	1.5
1989	700	3,532	3,088	5.0	1.1
1990	1,341	15,509	10,907	11.6	1.4
1991	903	5,525	5,315	6.1	1.0
1992	1,398	10,092	6,163	7.2	1.6
1993	3,000	21,213	18,121	7.1	1.2
1994	3,203	21,520	18,130	6.7	1.2
1995	2,051	14,358	11,332	7.0	1.3
2001	1,904	14,790	8,551	7.8	1.7
2002	1,983	12,994	8,396	6.6	1.5
2003	1,941	29,152	12,808	15.0	2.3
2004	1,815	17,038	8,368	9.4	2.0
2005	1,545	14,120	9,777	9.1	1.4
3-year avg.	1,767	20,103	10,317	11.2	1.9

[a] Telephone survey data at the regional level were not collected from 1996-2000.

Table 4. Estimated forest grouse harvest, Clearwater Region, 1985-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
1985	3,495	13,680	20,824	3.9	0.7
1986	4,296	21,701	28,141	5.1	0.8
1987	4,169	23,866	27,558	5.7	0.9
1988	3,493	18,590	25,834	5.3	0.7
1989	4,473	25,848	38,140	5.8	0.7
1990	4,385	23,086	27,901	5.3	0.8
1991	4,364	24,127	30,026	5.5	0.8
1992	4,117	16,638	26,851	4.0	0.6
1993	11,782	55,692	89,243	4.7	0.6
1994	14,796	70,255	117,135	4.7	0.6
1995	12,692	54,993	94,736	4.3	0.6
2001	5,927	26,970	34,684	4.6	0.8
2002	7,342	40,972	54,342	5.6	0.8
2003	5,510	34,661	34,342	6.3	1.0
2004	4,950	22,000	34,845	4.4	0.6
2005	4,675	20,735	29,990	4.4	0.7
3-year avg.	5,045	25,799	33,059	5.0	0.8

[a] Telephone survey data at the regional level were not collected from 1996-2000.

Table 5. Helicopter surveys of chukar in Unit 11, Clearwater Region, 1985-present.

Area	Year	Number of birds	Number of groups	Groups/ sq. mile	Birds/ sq. mile	Birds/ group
Salmon River breaks	1991	1,330	136	11.9	116.5	9.8
	1992	1,230	155	13.0	103.5	7.9
	1993	537	90	7.6	45.1	6.0
	1994	680	91	7.6	57.1	7.5
	1995	157	47	3.4	13.2	3.3
	1996	561	51	4.3	47.1	11.0
	1997	544	56	4.7	45.7	9.7
	1998	1,084	108	9.1	91.1	10.0
	1999	1,055	88	7.4	89.0	11.5
	2000	756	60	5.0	64.0	12.6
	2001	1,192	94	7.9	100.0	12.7
	2002	583	80	6.7	49.0	7.3
	2003[a]					
	2004	1,722	144	12.1	144.7	11.9
	2005	1,483	166	13.9	124.6	8.9
Snake River breaks	1985	895	55	6.1	98.5	16.3
	1986	1,566	91	8.3	142.1	17.2
	1987	1,627	95	8.6	147.6	17.1
	1988	446	48	6.4	59.5	9.3
	1989	1,095	74	5.3	78.8	14.8
	1990	1,245	100	7.9	97.8	12.5
	1991	745	84	5.9	53.0	9.0
	1992	867	100	6.2	53.5	9.0
	1993	307	35	2.2	19.0	8.8
	1994	638	49	3.0	39.4	13.0
	1995	137	23	1.4	8.5	6.0
	1996	829	39	2.4	51.2	21.3
	1997	1,124	82	5.1	69.4	13.7
	1998	1,159	91	5.6	71.5	12.7
	1999	956	83	5.1	59.0	12.0
	2000	481	40	2.5	30.0	12.0
	2001	875	81	5.0	55.0	10.8
	2002	286	34	2.1	17.6	8.4
	2003[a]					
	2004	797	60	3.7	49.2	13.2
	2005	880	54	3.3	54.3	16.3

[a] Surveys not flown due to fire season related conflicts.

Table 6. Estimated chukar harvest, Clearwater Region, 1985-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
1985	1,605	5,424	4,948	3.4	1.1
1986	1,500	7,244	6,049	4.8	1.2
1987	1,844	16,265	8,743	8.8	1.9
1988	1,609	11,139	8,743	6.9	1.3
1989	1,125	8,383	4,392	7.5	1.9
1990	1,532	11,045	7,671	7.2	1.4
1991	1,751	9,244	6,841	5.3	1.4
1992	1,794	9,720	5,208	5.4	1.9
1993	2,628	14,441	11,936	5.5	1.2
1994	2,791	17,531	13,635	6.3	1.3
1995	2,518	14,256	12,266	5.7	1.2
2001	1,775	9,871	6,324	5.6	1.6
2002	2,012	14,192	10,143	7.1	1.4
2003	1,806	11,663	8,292	6.5	1.4
2004	1,834	13,690	6,933	7.5	1.9
2005	1,450	13,115	6,025	9.1	2.2
3-year avg.	1,697	12,823	7,083	7.7	1.8

[a] Telephone survey data at the regional level were not collected from 1996-2000.

Table 7. Estimated gray partridge harvest, Clearwater Region, 1985-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
1985	1,024	2,626	4,714	2.6	0.6
1986	968	3,169	3,749	3.3	0.8
1987	1,012	5,996	5,266	5.9	1.1
1988	847	3,255	4,165	3.8	0.8
1989	442	666	1,928	1.5	0.3
1990	1,139	5,911	6,479	5.2	0.9
1991	1,012	6,215	5,661	6.1	1.1
1992	784	3,091	2,954	3.9	1.0
1993	2,505	8,658	13,668	3.5	0.6
1994	2,585	8,803	14,796	3.4	0.6
1995	1,767	6,905	9,281	3.9	0.7
2001	1,714	5,586	7,622	3.3	0.7
2002	1,421	7,860	7,562	5.5	1.0
2003	1,309	13,646	8,859	10.4	1.5
2004	1,073	4,174	4,774	3.9	0.9
2005	1,210	7,730	9,314	6.4	0.8
3-year avg.	1,197	8,517	7,649	6.9	1.1

[a] Telephone survey data at the regional level were not collected from 1996-2000.

Table 8. Estimated turkey harvest by unit, Clearwater Region, 1985-present.

	Unit[a]																	
Year	8	8A	10	10A	11	11A	12	13	14	15	16	16A	17	18	19	20	Total	Total hunter days
1985				2	3	2		6	2					10			25	355
1986				3	8	3		3	3					5			25	300
1987				7	17	4		5	4					0			37	647
1988				13	39	22		4	2					2			82	1,073
1989	15			31	22	10		4	4					6			92	2,014
1990	15	10		31	38	10		13						1			118	1,980
1991	35	13		59	87	38		3						2			237	3,650
1992	21	18		42	37	34		5		0	0			24			181	3,651
1993	59	88		127	137	39		0		20	29			10			509	9,491
1994	90	192		372	83	141		0	13	0	26			0			917	14,573
1995	57	114		286	100	57		0	86	57	57			14			828	15,000
1996	47	116		280	94	91	22	0	35	69	25			0			779	11,000
1997	40	123		385	189	182	13	41	27	51	92			0			1,143	12,813
1998	65	194		444	134	157	42	23	55	0	55			18			1,187	13,160
1999	251	435		1,059	257	278	101	58	28	154	187			14			2,822	24,975
2000[b]	123	461		822	141	264	22	30	76	76	163			30			2,288	26,205
2001[c]	190	343	38	615	111	205	53	25	66	109	149		6	69			1,979	20,512
2002[b]	177	230	110	497	153	205	34	21	55	119	132		6	49			2,243	20,004
2003[c]	217	328	120	798	165	280	47	63	140	84	196		0	84			2,522	23,598
2004[c]	202	469	55	781	150	177	36	34	98	161	142		0	36			2,340	22,999
2005[c]	278	493	7	920	242	415	49	30	101	111	183	13	0	77	13	0	2,932	26,089
10-year avg.	159	319	66	660	164	225	42	33	68	93	132	13	2	38	13	0	2,024	20,136

[a] Units having no data were not open to hunting during those years.
[b] Fall turkey harvest added to total; unit of harvest and hunter days was not asked in survey.
[c] Fall general wild turkey harvest included.

Table 9. Turkey translocation history, Clearwater Region, 1961-present.

Year	Sub-species[a]	Release site Drainage-Unit	Source-Unit	Birds released M	F	Total	New or supplemental release
1961	M	Deer Cr-18	Colorado	4	13	17	N
1962	M	Shingle Cr-18	Colorado	3	8	11	N
1963	M	Skookumchuck Cr-14	Colorado	4	7	11	N
1965	M	Webb Cr-11	Shingle Cr-18	2	8	10	N
1966	M	Webb Cr-11	John Day Cr-14	2	0	2	S
1971	M	Potlatch R-8	St. Maries-6	4	11	15	N
1972	M	Potlatch R-8	St. Maries-6	2	0	2	S
1973	M	Potlatch R-8	St. Maries-6	2	0	2	S
	M	Webb Cr-11	St. Maries-6	4	0	4	S
1980	M	Deer Cr-18	South Dakota	3	7	10	S
1982	M	Capt John Cr-11	South Dakota	5	14	19	N
	M	Slate Cr-14	South Dakota	3	9	12	S
	R	Lawyers Cr-11A	Kansas, Texas	7	17	24	N
	R	Cottonwood Cr-11A	Texas	4	8	12	N
	R	Big Canyon Cr-11A	Oklahoma	4	11	15	N
1983	R	Big Canyon Cr-11A	Oklahoma, Texas	3	15	18	S
1985	R	Wolf Cr-13	Texas	4	30	34	N
	E	Canyon Cr-10A	Pennsylvania	6	10	16	N
1986	M	Bedrock Cr-8	Hornet Cr-22	4	14	18	N
	M	Pine Cr-8	Hornet Cr-22	4	12	16	N
	R	Deer Cr-11	North Dakota	4	10	14	N
1988	M	Cottonwood Cr-13	Cottonwood Butte-11	4	21	25	N
	M	Bear Cr-8	Hornet Cr-22, Capt John Cr-11	6	23	29	N
	M	Six-Mile Cr-11A	Hornet Cr-22, Capt John Cr-11	11	18	29	N
1989	M	Lawyers Cr-11A	Woodland-10A	3	15	18	S
1990	M	John Day Cr-14	Big Bear Cr-8	6	10	16	N
	E	Jim Ford Cr-10A	North Dakota	9	8	17	N
1991	M	John Day Cr-14	Big Bear Cr-8	3	14	17	S
	M	Little Canyon-11A	Brush Cr-9	10	24	34	N
	M	Big Canyon Cr-11	Dawson Ridge-1	10	25	35	S
	E, R	Upper Fords Cr-10A	North Dakota	5	35	40	S
	E	Dicks Cr-8A	North Dakota	4	36	40	N
	M	Slate Cr-14	Cottonwood Butte-11	6	21	27	S
1992	M	Lawyers Cr-11	Kootenai R-1	7	21	28	N
	M	Skookumchuck Cr-14	North Dakota	10	21	31	S
	M	Cottonwood Butte-11	North Dakota	7	10	17	S
1993	M	White Bird Cr-14	Grouse Cr-1	6	24	30	S
	M	Hamilton Cr-13	North Dakota	4	20	24	S
	M	Rock Cr-11	North Dakota	3	22	25	N
	M	Orofino Cr-10A	Big Bear Cr-8	6	20	26	S
	M	Rock Cr-11	Big Bear Cr-8	3	0	3	N
	M	Wapshilla Cr-11	Blue Cr-3	4	8	12	S
	M	Whiskey Cr-10A	Grouse Cr-1	6	6	12	S
	M	Whiskey Cr-10A	Blue Cr-3	2	8	10	S

Table 9. Continued.

Year	Sub-species[a]	Release site Drainage-Unit	Source-Unit	Birds released M	F	Total	New or supplemental release
1994	M	Pickle Canyon-11A	Big Bear Cr-8	5	12	17	N
	M	Pickle Canyon-11A	Little Canyon-11A	5	0	5	N
	M	Allison Cr-14	Big Bear Cr-8	6	4	10	N
	M	Allison Cr-14	Big Bear Cr-8	0	11	11	N
	M	Allison Cr-14	Maas G-1	0	8	8	N
	M	Allison Cr-14	Houcks Spur-1	4	0	4	N
	M	Flannigan Cr-8	Maas G-1	1	2	3	N
	M	Flannigan Cr-8	Houcks Spur-1	4	24	28	N
	M	Flannigan Cr-8	Little Canyon-11A	4	0	4	N
1995	M	5-Mile Cr-11A	Big Bear Cr-8	6	0	6	S
	M	Flat Cr-8	Big Bear Cr-8	6	0	6	N
	M	Allison Cr-14	Crow Bench-11A	1	18	19	S
	M	Allison Cr-14	Cottonwood Cr-11A	5	0	5	S
1996	M	Deep Cr-8	Port Hill, B.C.	12	18	30	N
	M	Boulder Cr-8	Port Hill, B.C.	3	5	8	S
	M	Eagle Cr-11	Port Hill, B.C.	6	19	25	N
	M	Grave Cr-11	Orofino-10A	1	5	6	N
	M	Deer Cr-11	Big Bear Cr-8	10	28	38	N
	M	Blanco Cr-15	Jacks Cr-11A	4	6	10	N
1997	M	Squaw Cr-18	Armiger-10A	8	27	35	N
	M	Castle Cr-15	Armiger-10A	8	21	29	N
	M	Rice Cr-13	Panhandle Region	10	24	34	N
	M	Nora Cr-8A	Panhandle Region	10	33	43	N
	M	Billy Cr-11	Crow Bench-10A	10	27	37	N
	M	Cottonwood Cr-11	Big Bear Cr-8	8	27	35	N
	M	Dough Cr-11	Armiger-10A	6	19	25	N
	M	Blanco Cr-15	Mt Idaho-15	10	13	23	S
1998	M	MF Payette-33	Packard-8	6	24	30	N
	M	Papoose Cr-18	Lathrop-10A	6	29	35	N
	M	Allison Ranch-20	Mt Idaho-15	5	20	25	N
	M	Allison Cr-14	Duman-11	5	9	14	S
	M	Little Weiser-32W	Duman-11	6	11	17	S
	M	California	Duman, et al-11	6	26	32	NA
1999	M	Schwartz Cr-15	Bott Ranch-10A	3	21	24	N
	M	Rapid River-23	Busta-10A	12	28	40	N
	M	California	Bott Ranch-10A	3	24	27	NA
2000	M	Rapid River-18	Bott Ranch-10A	4	14	18	S
	M	Rice Cr-13	Groom, et al-11A	6	28	34	S
	M	Divide Cr-13	Bott, et al-10A	1	24	25	S
	M	Getta Cr-13	Gray, et al-10A	8	40	48	S
	M	Big Canyon Cr-13	Bott, et al-10A	6	14	20	S
	M	Wolf Cr-13	Duclercque-10A	6	11	17	S
	M	Hi-Range Cr-13	Gray, et al-10A	3	20	23	S
	M	Slate Cr-14	Gray-10A	2	23	25	S
	M	Red River-15	Duclercque-10A	1	22	23	S
	M	Billy Cr-11	Bott Ranch-10A	1	7	8	S

Table 9. Continued.

Year	Sub-species[a]	Release site Drainage-Unit	Source-Unit	Birds released M	F	Total	New or supplemental release
2001	M	Snake River-63A	Thompson-8	5	20	25	N
	M	Red River-15	Busta-10A	14	6	20	S
2002	M	Bob Smith Canyon Robber's Roost-71	Bott-10A	2	21	23	N
	M	Bob Smith Canyon Robber's Roost-71	Wilcox-10A	10	0	10	N
	M	Bob Smith Canyon Robber's Roost-71	Gray-10A	5	17	22	N
	M	Binninger-10A	Gray-10A	0	1	1	S
	M	Craig Mtn-11	Gray-10A	0	3	3	S
	M	Slate & Squaw Cr-14	Crabtree-15			29	S
	M	Main Snake below confluence-63A	Grandi-8	2	4	6	N
	M	Main Snake below confluence-63A	Jackson-10A	4	11	15	N
	M	Main Snake below confluence-63A	Crabtree-15	1	24	25	N
	M	Castle Cr-15	Lucas-15	0	14	14	S
	M	Eagle Cr-11	Lucas-15	0	13	13	S
2003	H	Eagle Cr-11	Harris-8A	0	10	10	S
	H	Eagle Cr-11	Weidner-11A	3	20	23	S
2004	H	SE Idaho	Frei-11	10	21	31	S
	H	Billy Cr-11	Frei-11	12	1	13	S
	H	Nevada	Frei-11	15	7	22	N
	H	F.S. Road 1963-8A	Frei-11	0	16	16	N
	H	Eagle Cr-11	Weidner-10A	10	26	36	S
	H	Benton Meadows-11	Weidner-10A	3	32	35	S
	H	Billy Cr-11	Weidner-10A	7	8	15	S
	H	Nevada	Weidner-10A	3	10	13	N
	H	SE Idaho	Nicolls-10A	2	9	11	S
	H	Nevada	Nicolls-10A	6	12	18	N
2005	H	Castle Cr-15	Stover-13	4	14	18	S
	H	Rice Cr-13	Stover-13	5	24	29	S
	H	Earthquake Cr-15	Ross-15	4	47	51	S
	H	Hungry ridge-15	Ross-15	1	19	20	S
	H	Captain John Cr-11	Ross-15	0	8	8	S
2006	M	Eagle Cr-11	Moyie Springs-1	18	38	56	S

[a] E = Eastern; M = Merriam's; R = Rio Grande; H = Hybrid.

Table 10. Mourning dove call-count survey results and estimated harvest, Clearwater Region, 1985-present.

	Call-count routes		Telephone survey[a]				
Year	Routes counted	Doves heard/mile	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
1985	2	0.30	493	3,754	1,087	7.6	3.5
1986	2	0.00	320	3,666	1,340	11.5	2.7
1987	2	0.03	327	4,468	973	13.7	4.6
1988[b]	1	0.10	205	842	398	4.1	2.1
1989	2	0.20	220	758	341	3.4	2.2
1990[c]	1	0.30	110	863	108	7.8	8.0
1991	2	0.10	324	3,971	1,098	12.3	3.6
1992	2	0.10	156	1,151	152	7.4	7.6
1993	2	0.20	773	3,587	3,123	4.6	1.1
1994	2	0.30	1,161	8,765	3,989	7.5	2.2
1995	2	0.10	792	4,062	3,229	5.1	1.3
1996[c]	1	0.02					
1997[c]	1	0.15					
1998[c]	1	0.30					
1999[c]	1	0.15					
2000[c]	1	0.15					
2001[b]	1	0.10					
2002	2	0.13					
2003	2	0.05					
2004	2	0.29					
2005[c]	1	0.40					

[a] Telephone survey data at the regional level were not collected after 1995; harvest is reported directly to the USFWS by hunters.
[b] Route 0730 not surveyed.
[c] Route 1150 not surveyed.

Table 11. Mourning doves banded in Clearwater Region, 2003-present.

	Adult					
Year	Male	Female	Unknown	Hatch-year	Unknown	Total
2003	0	0	0	0	0	0
2004	27	16	2	18	0	63
2005	33	19	4	44	0	100
Total	60	35	6	62	0	163

Table 12. Estimated cottontail rabbit and snowshoe hare harvest, Clearwater Region, 2003-present.

	Cottontail rabbit		Snowshoe hare	
Year	Hunters	Cottontails harvested	Hunters	Hares harvested
2003	287	605	67	126
2004	325	383	123	240
2005	82	691	110	149
3-year average	231	560	100	172

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Upland Game Surveys and Inventories
PROJECT:	W-170-R-30		
SUBPROJECT:	3	**STUDY NAME:**	Upland Game and Waterfowl Population Status and Trends
STUDY:	II		
JOB:	1		

PERIOD COVERED: April 1, 2005 to March 31, 2006

SOUTHWEST REGION

Climatic Conditions

Above average precipitation and snow cover characterized winter 2005-2006. However, anecdotal information indicated snow cover had no detrimental impact on upland game species. Spring weather conditions were wet to mild and favorable for nesting in 2005.

Trapping and Translocation

No trapping or translocation took place in Southwest Region for pheasant, quail, forest grouse, sage-grouse, sharp-tailed grouse, chukar, or gray partridge during the reporting period.

Pheasant

Population Surveys

Average number of young per brood in 2005, based on survey routes, was 5.4 (Table 1). This count was equivalent to the 5.4 young/brood documented the previous year, and slightly less than the 10-year average of 5.5. Pheasant abundance, counted at 1.2 birds per mile, was 3 times greater than recorded numbers compared to the year before, and 2 times greater than the 10-year average of 0.6.

Harvest Characteristics

A telephone survey of upland game hunters was conducted in 2005 (Table 2). An estimated 10,347 hunters harvested 39,135 birds in the Southwest Region during fall 2005 for an average of 0.7 birds/day. Hunter participation increased 14% and harvest increased 59% from 2004.

A check station was operated at Freezeout Hill to monitor pheasant hunting success on opening weekend in 2005. Total number of hunters checked was 14 in 2005 compared to 95 in 2004 when an additional check station was operated in Star. Number of birds checked decreased from 38 birds in 2004 to 10 birds in 2005. Number of birds harvested per hunter day increased from

0.4 birds in 2004 to 0.7 birds in 2005. Additionally, the number of hours hunted per bird harvested decreased from 6.5 hours to 3.8 hours in 2005 (Table 2).

Habitat Conditions

Long-term population trends are down, primarily due to major changes in farming practices and development of agricultural lands. Farmers in Canyon and Owyhee counties are no longer raising high-moisture corn, which they normally harvested in late fall. Fall plowing of all fields has become the normal operating procedure, thereby limiting winter food and cover for pheasants. Conversion of farmland to residential subdivisions is increasing throughout the region. Further reductions in long-term populations are expected.

Depredations

Some pheasant depredations occur every spring on wheat, barley, and corn. Sweet corn is the primary corn damaged by pheasants. Cracker shells and salutes (M80s) are provided to landowners to alleviate the problem.

Release of Pen-reared Pheasants

Adult roosters were purchased from a contractor and released on Department lands in Southwest Region. A total of 10,590 pheasants were released on Fort Boise, C. J. Strike, Payette River, and Montour WMAs from 17 October - 26 December 2005. These birds added significantly to hunter opportunity on these 4 heavily-hunted WMAs.

Management Implications

Pheasant populations are largely dependent upon winter habitat, nesting habitat, and spring weather conditions during nesting and brood-rearing time. Weather conditions will have a larger influence on the pheasant population while the habitat quality remains low. Habitat quality and quantity needs to be improved to moderate the effect of weather conditions. Uncontrollable weather factors will be the major influence on recruitment of birds into fall populations until habitat conditions improve.

Southwest Region has seen significant decreases in winter habitat due to changes in farming practices and development of agricultural lands into home sites. Pheasant populations will continue to decline with the loss of habitat. Associated with the decline in pheasant population and habitat, number of hunters and harvest is down from historic numbers.

Quail

Population Surveys

In 2005, 5.4 quail per mile were observed along 500 miles of brood routes surveyed (Table 3), which is 2 times higher than documented numbers in 2004 (2.7), and double the 10-year average (2.7).

Harvest Characteristics

An estimated 8,082 hunters harvested 145,761 quail in 2005 (Table 3). Hunter participation and quail harvest increased 3% and 59%, respectively, from 2004 to 2005. Quail harvest in 2005 was the largest ever documented in Southwest Region and was 49% higher than the 10-year average of 97,791 birds.

Management Implications

California quail populations are fairly stable over the long term but experience short-term population fluctuations, depending upon severity of winter weather and the amount of cold, wet weather during the nesting season. Populations are currently in good condition.

Forest Grouse

Population Surveys

No drumming counts or other spring population indices were conducted in the region during the reporting period.

Harvest Characteristics

An estimated 5,668 hunters harvested 17,578 forest grouse in the Southwest Region in 2005 (Table 4), representing a 52% decrease in harvest from 2004, and a 45% decrease from the 3-year average.

A few birds are checked incidental to other activities. No check stations are run specifically for forest grouse. Wings from harvested grouse (157 blue grouse, 81 ruffed grouse) were collected at 19 wing barrels distributed in Units 22, 31, 32, 32A, 33, and 39. Juvenile:adult female ratios of 242:100 and 119:100 were documented for blue grouse and ruffed grouse, respectively (Table 5).

Management Implications

Forest grouse populations are dependent on good nesting and brood-rearing conditions. There is concern that insect damage to evergreen species may have a negative impact on blue grouse populations. We have emphasized good forest grouse habitat management procedures to BLM and U.S. Forest Service (USFS) when reviewing timber sales and livestock management plans. Additionally, significant declines in aspen stands, a productive and highly favored habitat of grouse, are likely having a negative impact on forest grouse.

Anecdotal information and limited wing barrel data suggest ruffed grouse populations may be exploited, particularly during the first 2 weeks of September, prior to brood dispersal. Moving the opening date of forest grouse season back 2 weeks to coincide with opening day of partridge and quail season is being explored by the region.

Sage-grouse

Population Surveys

No sage-grouse brood routes were conducted in 2005. We observed 990 male sage-grouse on 37 leks in the region during March-May 2005.

Harvest Characteristics

Telephone survey estimates indicate 1,016 hunters harvested 1,373 sage-grouse in 2005, an average of 0.8 birds harvested per day (Table 6).

Check stations were operated opening weekend along Highway 51 at Bruneau and along Mud Flat Road during the 2005 season. We checked 308 sage-grouse compared to 192 sage-grouse in 2004 and 254 in 2003. The number of hours required to harvest a bird remained stable while number of birds harvested per hunter increased from 0.9 in 2004 to 1.3 in 2005 (Table 6).

Sage-grouse wings were collected at check stations and in 15 wing barrels distributed throughout the sage-grouse hunt area for sex and age composition analysis (Table 7).

Management Implications

Lek survey information suggests sage-grouse populations have been stable to increasing in recent years in most of the region. Populations are largely dependent upon habitat conditions and spring weather conditions during nesting and brood rearing. Recruitment of birds into the fall will be governed by uncontrollable weather factors until habitat quality and quantity is improved to moderate the effect of weather conditions.

We continue to work closely with BLM to reduce impacts of present and proposed land management practices on sage-grouse habitat. Currently, we are conducting a study on sage-grouse seasonal distribution and movements in several portions of Owyhee County. The study will be used to prioritize habitat protection and improvement efforts based on key seasonal habitat used by sage-grouse. Additionally, other research is being conducted in Washington County to document seasonal distribution, habitat use patterns, productivity, and survival rates. Washington County is unique because it is isolated from other sage-grouse populations and habitat, and the land is highly fragmented and primarily under private ownership.

Sharp-tailed Grouse

Population Surveys

Trends in sharp-tailed grouse populations are unknown in Southwest Region. Monitoring of remnant flocks and their corresponding leks was most recently conducted in 2000 by BLM personnel and indicate a small but stable number of birds attending leks in recent years.

Habitat Conditions

Due to habitat loss, sharp-tailed grouse populations in Southwest Region have been reduced to remnant flocks in Washington, Adams, and Payette counties. The Department and BLM completed research on sharp-tailed grouse distribution, habitat use, and population size in Washington County in 1985. The Department has not participated in research on sharp-tailed grouse habitat in Southwest Region since 1985.

Management Implications

Southwest Region has encouraged land management agencies to protect sharp-tailed grouse habitat when planning land management activities. In addition, the region has entered into a cooperative agreement with BLM and The Nature Conservancy (TNC) to manage sharp-tailed grouse populations and habitat in Washington County. An area of critical habitat for sharp-tailed grouse comprised of approximately 7,000 acres of BLM and TNC lands will be managed for sharp-tailed grouse by the cooperators. The Department will provide increased enforcement patrols and take over monitoring of sharp-tailed grouse dancing grounds on the Hixon Sharp-tailed Grouse Preserve, and additional leks in other portions of the region will be surveyed for possible inclusion into the monitoring program.

Populations are far below long-term levels due to habitat losses. Sharp-tailed grouse have increased because of CRP improvements to habitat and good climatic conditions. It is not likely that populations will reach harvestable levels during this planning period. Significant increases in occupied habitat need to be accomplished.

Chukar

Population Surveys

Since 1984, helicopter surveys have been conducted in late August or early September along a portion of Brownlee and Lucky Peak Reservoirs to monitor chukar population trends (Tables 8 and 9). Brownlee Reservoir had the highest recorded total number of chukars observed (2,085) since 1987. Chukar numbers were 42% higher in 2005 than the prior 10-year average. Lucky Peak was not surveyed in 2005.

Harvest Characteristics

An estimated 7,663 hunters pursued chukar in Southwest Region and harvested an estimated 62,315 birds. Participation decreased 21% and harvest decreased 14% from 2005 (Table 10). From 2001-2005, the annual chukar harvest averaged 72,076 by 8,527 hunters.

In January 2006, 1,500 chukars were released on C. J. Strike Wildlife Management Area to provide hunting opportunity for military personnel returning home from active duty overseas. It is not anticipated that future releases will be made.

Management Implications

The chukar population was up considerably in 2005. Survey counts along Brownlee Reservoir were the highest since 1987 and the second highest ever counted.

Chukar populations are largely dependent upon spring weather conditions during nesting and brood rearing. Recruitment of birds into fall will be governed by uncontrollable weather factors until habitat quantity and quality is improved to moderate the effect of weather conditions.

Several large wildfires burned significant portions of chukar habitat along Brownlee Reservoir, primarily within the Rocking M Conservation Easement. Vegetation rehabilitation efforts by IDFG and BLM will largely be dependant on precipitation, and success of these efforts may be unknown for several years. It is unlikely these fires will negatively impact local chukar populations or hunting opportunity.

Gray Partridge

Population Surveys

Along nearly 500 miles of brood survey routes in 2005, 0.1 birds were observed per mile, a 50% decrease from 2004, but consistent with the 10-year average (Table 11).

Harvest Characteristics

An estimated 3,276 hunters pursued gray partridge in Southwest Region and harvested an estimated 12,835 birds (Table 11).

A few birds are checked incidental to other activities. No check stations are run specifically for gray partridge.

Management Implications

The gray partridge population is well below its historic highs, but the basic core population is still present. Populations are largely dependent upon spring weather conditions during nesting and brood rearing. Recruitment of birds into fall will be governed by uncontrollable weather factors until habitat quantity and quality is improved to moderate the effect of weather conditions.

Wild Turkey

Population Surveys

No trend surveys are in place to monitor turkey populations in Southwest Region. Anecdotal observations suggest a decline in turkey numbers in recent years.

Harvest Characteristics

Two controlled spring hunts were held for turkeys in Southwest Region in 2005, including a newly created youth hunt. A general spring gobbler-only hunt was held in most units in 2005. Harvest estimates for 2005 indicate an 8% increase in hunters compared to 2004. This hunter effort resulted in 1,450 turkeys harvested in 2005 compared to 1,489 turkeys harvested in 2004 (Table 12).

One check station was operated on opening day (15 Apr) at Moores Creek on Highway 21. Seven turkeys were harvested by 144 hunters checked.

Trapping and Translocation

Eighty-five Merriam turkeys were trapped in northern Idaho and transplanted in the Southwest Region in January 2006 (Table 13). Sixty turkeys were released at the Cottonwood Ranger Station on the Middle Fork Boise River (Unit 39) and 25 turkeys were released at Willow Creek in the Danskin Mountains (Unit 39).

Depredations

Few turkey depredation or nuisance complaints were received during winter 2005-2006.

In some areas of the region, turkeys are dependent upon supplemental feed to survive the winter. During winter 2005-2006, Department personnel, in cooperation with members of the Idaho and local chapters of NWTF, distributed approximately 3.6 tons of donated corn to sustain turkeys, primarily in the Cambridge/Council area and Idaho City. The amount of corn dispensed is down from the 10 tons distributed during winter 2003-2004, and the 6.4 tons distributed in 2004-2005.

Management Implications

Wild turkey hunter numbers increased (8%) in 2005 compared to 2004. However, despite increased hunter participation, 3% fewer turkeys were harvested in Southwest Region in 2005 compared to 2004, and 22% fewer turkeys were harvested compared to 2003. This and other anecdotal observations suggest turkey numbers have declined in recent years.

Regional personnel have supported enhancement of turkey habitat by plantings of food plots specifically for wild turkey on USFS lands and by completing habitat improvement projects on Department-owned lands. Additionally, regional personnel have provided input into land-use plans on the importance of turkey habitat.

Wild turkey populations appear down in several popular hunting destinations in Southwest Region, including Idaho City, Garden Valley, and areas adjacent to the Andrus WMA. General fall turkey hunting seasons in Units 33 and 39 will be closed beginning with fall 2006 season to minimize any negative impact fall hunting season may have on local turkey populations.

Blood samples were collected from all turkeys transplanted in Unit 39 in January 2006. Three tested positive for *Mycoplasm synoviae*. This bacteria has been linked to chronic respiratory disease and infectious sinusitis in turkeys and other wild birds.

Mourning Dove

Harvest Characteristics

Harvest information on mourning doves is collected via the USFWS harvest survey. No regional telephone harvest survey has been conducted since 1995. From 1991-1995, the dove harvest averaged 46,000 birds by 4,500 hunters (Table 14).

Population Surveys

Regional personnel participate in the USFWS annual mourning dove call-count routes in May each year. In 2005, regional personnel also counted mourning doves while conducting pheasant brood routes. Approximately 4 mourning doves per mile were counted in 2005 (Table 14).

Trapping and Banding

Southwest Region has participated in a statewide effort to trap and band mourning doves since 2003 (Table 15). In 2003, 65 doves were banded at 2 sites. All doves received a standard leg band on the right leg, and for all odd-numbered bands, a gold band was placed on the opposite leg. In 2004, a total of 100 doves were banded at 3 sites. All doves received a standard leg band; hatch-year doves also received a reward band on the opposite leg. In 2005, 37 doves were banded at 2 sites, and all doves received a standard leg band.

Rabbits and Hares

Population Surveys

No surveys or other efforts are made to estimate rabbit and hare populations in Southwest Region.

Harvest Characteristics

Estimates from the telephone harvest survey indicate 874 hunters harvested 4,528 cottontail rabbits in 2005 compared to 3,582 cottontails harvested by 1,137 hunters in 2004 (Table 16). In addition, 58 hunters harvested 48 snowshoe hares in 2005 (Table 16).

Management Implications

Hunting has little, if any, effect on populations. Seasons have been set with liberal bag limits and season lengths. No active data collection programs exist for rabbit or hare production or population estimates. The harvest of rabbits and hares is very small and has no impact on populations.

American Crow

The American crow will continue to be a species with no active management.

Table 1. Pheasant population characteristics and production, Southwest Region, 1980-present.

Year	Miles counted	Birds per mile	Percent unsuccessful females	Juv:100 adult females	*n*	Average brood size
1980	404	3.6	3	481	1,483	0.5
1981	402	4.4	7	427	1,799	5.4
1982	430	2.1	134	304	905	4.4
1983	298	3.1	15	383	941	4.6
1984	310	1.8	17	437	555	4.5
1985	278	2.8	16	653	784	7.7
1986	176	3.2	10	475	570	5.3
1987	178	2.7	13	415	446	4.8
1988	161	2.0	12	414	315	4.5
1989	176	2.0	2	497	414	4.9
1990	192	2.5	8	516	485	5.2
1991	600	0.7	34	505	397	4.0
1992	660	0.9	29	527	610	5.3
1993	580	0.3	39	611	200	6.1
1994	580	1.6	24	481	959	6.9
1995	480	0.5	40	398	246	4.5
1996	260	0.8	17	624	215	6.2
1997	660	0.4	25	360	290	4.8
1998	640	0.6	25	358	371	4.8
1999	540	0.6	17	396	315	4.8
2000	540	0.5	22	575	246	7.4
2001	620	0.6	29	423	342	5.9
2002	600	0.3	59	436	180	4.4
2003	540	0.4	79	546	153	5.7
2004	500	0.4	45	514	113	5.4
2005	460	1.2	40	540	232	5.4
10-year average	536	0.6	36	477	246	5.5

Table 2. Estimated pheasant harvest, Southwest Region, 1980-present.

	Check station				Telephone survey[a]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds harvested	Birds per hunter day
1980	2,457	2,239	0.9	3.7			
1981	2,516	2,054	0.8	4.1			
1982	1,860	1,147	0.6	5.5			
1983	2,054	1,963	1.0	3.5	31,946	155,604	0.9
1984	1,723	1,342	0.8	4.6	28,979	132,487	0.8
1985	1,324	1,051	0.8	4.0	27,231	142,867	0.8
1986	1,718	1,412	0.8	4.1	25,218	119,326	0.8
1987	1,696	1,143	0.7	5.6	23,047	103,728	0.8
1988	1,245	569	0.5	7.0	17,016	64,302	0.7
1989	845	515	0.6	5.1	15,983	64,059	0.7
1990	962	739	0.8	4.2	16,309	74,302	0.7
1991	880	546	0.6	5.3	16,073	61,248	0.6
1992	693	488	0.7	4.5	15,800	68,600	0.7
1993	250	114	0.4	7.0	15,700	68,200	0.6
1994	198	128	0.6	4.7	12,600	57,100	0.7
1995	293	576	0.6	3.1	16,000	70,300	0.6
1996	156	471	0.7	4.5			
1997	258	109	0.4	8.1			
1998	143	86	0.6	5.3			
1999	197	92	0.5	6.0			
2000	357	135	0.4	7.1			
2001	168	91	0.5	6.2	11,685	38,994	0.6
2002[b]	59	18	0.4	7.6	10,425	27,010	0.6
2003[c]	55	21	0.4	7.4	10,196	31,962	0.6
2004	95	38	0.4	6.5	9,029	24,623	0.6
2005[b]	14	10	0.7	3.8	10,347	39,135	0.7
10-year average	150	107	0.5	6.3	10,336	32,344	0.6

[a] Telephone survey data at the regional level were not collected from 1980-1982 and 1996-2000.
[b] Freezeout Hill check station only.
[c] Star check station only.

Table 3. Quail population characteristics and estimated harvest, Southwest Region, 1985-present.

	Brood routes[a]		Telephone survey[b]		
Year	Miles counted	Birds[c] per mile	Hunters	Birds harvested	Birds per hunter day
1985			4,854	37,776	1.2
1986			4,123	26,234	1.5
1987			3,677	27,476	1.2
1988			4,536	43,549	1.6
1989			4,523	47,418	1.8
1990			4,857	46,097	1.9
1991	600	1.5	5,478	58,352	1.7
1992	620	0.6	5,400	71,100	2.1
1993	580	0.3	10,400	86,100	1.3
1994	560	1.2	8,500	86,500	1.7
1995	480	0.9	11,500	143,800	1.8
1996	260	2.2			
1997	660	1.0			
1998	640	2.1			
1999	540	2.1			
2000	540	2.0			
2001	620	2.8	7,718	84,977	2.2
2002	600	4.3	7,613	61,026	2.1
2003	540	2.5	8,467	105,749	2.4
2004	500	2.7	7,872	91,441	2.3
2005	460	5.4	8,082	145,761	2.6
10-year average	536	2.7	7,950	97,791	2.3

[a] Brood routes were not conducted from 1985-1990.
[b] Telephone survey data at the regional level were not collected from 1996-2000.
[c] Almost entirely California quail.

Table 4. Estimated forest grouse harvest, Southwest Region, 1985-present.

Year[a]	Hunters	Birds harvested	Birds per hunter	Birds per hunter day
1985	3,524	12,441	3.5	0.8
1986	3,641	17,049	4.7	1.2
1987	4,145	18,406	4.4	1.1
1988	4,207	18,843	4.5	0.9
1989	4,846	25,699	5.3	1.0
1990	2,637	10,605	4.0	1.1
1991	2,365	10,636	4.5	1.0
1992	5,100	17,800	3.5	0.9
1993	10,400	30,100	2.9	2.9
1994	9,000	31,700	3.5	0.6
1995	13,500	43,800	3.2	0.6
2001	7,008	34,251	3.3	1.0
2002	8,945	34,672	5.5	0.8
2003	7,136	40,548	10.4	1.1
2004	9,415	36,312	3.4	0.7
2005	5,668	17,578	3.1	0.6
3-year avg.	7,634	31,479	5.6	0.8

[a] Telephone survey data at the regional level were not collected from 1996-2000.

Table 5. Forest grouse production in Southwest Region based on wing collection, 1988-present.

	Blue Grouse			Ruffed Grouse	
Year[a]	*n*	Juv:100 adult females	Juv:100 adults	*n*	Juv:100 adults
1988		52	120	36	100
1989		61	239	34	105
1990		126	107	24	60
1991		106	74	16	300
2001	165	362	177	157	166
2002	347	250	144	171	148
2003	356	297	168	130	128
2004	206	149	66	78	116
2005	157	242	141	81	119
3-year avg.	240	229	125	96	121

[a] Wing barrel data were not collected from 1992-2000.

Table 6. Estimated greater sage-grouse harvest, Southwest Region, 1980-present.

	Check station[a]				Telephone survey[b]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds harvested	Birds per hunter day
1980	505	441	0.9	6.7			
1981	464	606	1.3	3.5			
1982	359	236	0.6	9.2			
1983	108	37	0.3	14.9	2,912	2,713	0.4
1984	47	31	0.7	5.2	504	901	0.6
1985	161	110	0.7	6.5	1,319	2,718	0.6
1986	245	330	1.3	4.3	608	1,253	0.6
1987	219	315	1.1	4.9	837	1,567	1.1
1988	329	284	0.9	5.7	1,830	4,532	0.7
1989	228	222	1.0	5.4	1,035	2,049	1.1
1990	476	883	1.9	3.3	1,217	4,320	1.5
1991	476	498	1.1	5.3	1,584	4,292	0.6
1992	599	412	0.7	7.7	1,500	4,200	0.7
1993	74	58	0.8	6.3	3,200	11,100	1.9
1994	99	109	1.1	3.8	3,400	6,400	0.6
1995	71	62	0.9	4.2	4,300	6,700	0.5
1996	44	29	0.7	6.0			
1997	34	36	0.9	3.7			
1998	23	23	1.0	3.8			
1999	21	18	1.0	4.4			
2000	365	312	0.9	6.5	997	1,848	0.6
2001	150	179	1.2	5.5	858	1,240	0.7
2002	285	293	1.0	5.0	1,135	1,499	0.7
2003	246	254	1.0	5.0			
2004	203	192	0.9	5.1	1,388	1,748	0.6
2005	232	308	1.3	5.0	1,016	1,373	0.8
10-year average	160	164	1.0	5.0	1,079	1,542	0.7

[a] Walters Ferry and Bruneau check stations open on weekends in 1990. Bruneau check station open on opening day only from 1993-1999. Only Bruneau and Mud Flat check stations were operated from 2001-2003.

[b] Telephone survey data at the regional level were not collected from 1980-1982 and 1996-1999. Telephone survey data for 2003 is not available.

Table 7. Greater sage-grouse production based on wing collections, Southwest Region, 1980-present.

Year	Juv:100 females	Juv:100 adults	Percent unsuccessful females
1980	106	62	65
1981	111	61	26
1982	83	57	59
1983	332	225	33
1984	145	111	40
1985	150	101	48
1986	195	133	29
1987	198	124	29
1988	165	109	35
1989	277	163	26
1990	211	153	20
1991	108	66	78
1992	83	56	84
1993	197	129	53
1994	277	207	69
1995	145	98	46
1996	185	107	51
1997	123	78	54
1998	130	101	75
1999	300	192	56
2000	127	85	67
2001	145	110	38
2002	295	201	86
2003	199	130	81
2004	246	168	
2005	221	164	70
10-year avg.	197	134	64

Table 8. Chukar aerial survey results along Brownlee Reservoir, Southwest Region, 1984-present.

Year[a]	Chukars observed	Chukar groups	Groups per square mile[b]	Chukars per square mile	Chukars per group
1984	597	45	3.8	49.8	13.3
1985	872	62	5.2	72.7	14.1
1986	1,686	94	7.8	140.5	17.9
1987	2,652	115	9.6	221.0	23.1
1988					
1989	649	57	4.8	54.1	11.4
1990	1,313	77	6.4	109.4	17.1
1991	1,621	103	8.6	135.1	15.7
1992	930	89	7.4	77.5	10.5
1993	211	24	2.0	17.6	8.8
1994	1,056	65	5.4	88.0	16.2
1995	952	88	7.3	79.3	10.8
1996	949	90	7.5	79.1	10.5
1997	881	79	6.6	73.4	11.2
1998	1,131	125	10.4	109.3	10.5
1999	1,330	101	8.4	110.8	13.2
2000	1,488	104	8.7	124.0	14.3
2001	1,724	127	10.6	143.7	13.6
2002	1,488	92	7.7	124.0	16.1
2003	1,656	139	11.6	138.0	11.9
2004	1,855	102	8.5	154.6	18.2
2005	2,085	116	9.7	173.8	18.0
10-year avg.	1,459	108	9.0	121.6	13.5

[a] Years with no data were not surveyed.
[b] The survey area is 12 square miles.

Table 9. Chukar aerial survey results on Lucky Peak Reservoir, Southwest Region, 1984-present.

Year[a]	Chukars observed	Chukar groups	Groups per square mile[b]	Chukars per square mile	Chukars per group
1984	84	10	1.1	7.6	8.4
1985	132	10	1.2	11.0	13.2
1986	144	15	1.0	9.6	9.6
1987	409	33	3.3	40.9	12.4
1988					
1989					
1990					
1991	115	18	1.1	7.2	6.4
1992					
1993	84	10	1.2	7.1	7.4
1994	190	13	1.5	19.0	14.6
1995	212	18	1.8	21.2	11.8
1996					
1997	314	29	2.9	31.4	10.8
1998	193	26	2.6	19.3	7.4
1999					
2000	241	21	2.1	24.1	11.5
2001					
2002	218	18	1.8	21.8	12.1
2003					
2004	362	31	3.1	36.2	11.7
2005					

[a] Years with no data were not surveyed.
[b] The survey area is 10 square miles.

Table 10. Estimated chukar harvest, Southwest Region, 1985-present.

	Check station[a]				Telephone survey[b]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds harvested	Birds per hunter day
1985	354	177	0.5	9.2	3,987	14,895	0.7
1986	402	238	1.2	6.3	6,505	46,299	1.9
1987	327	164	0.5	4.5	7,995	70,379	1.6
1988	316	168	0.5	11.5	6,957	49,687	1.7
1989	170	121	0.7	6.9	5,937	42,003	1.4
1990	257	420	1.6	2.4	5,793	49,954	1.9
1991	164	111	0.7	6.6	7,150	52,750	1.6
1992	136	72	<0.1	10.0	6,300	28,900	1.1
1993	5	2	0.4	7.5	8,500	48,100	5.1
1994	14	17	1.2	4.6	7,500	59,400	1.6
1995	7	9	1.3	2.9	10,700	96,700	1.5
1996	24	15	0.6	2.0			
1997	9	15	1.7	2.4			
1998	4	0					
1999	5	0					
2000	374	271	0.7	7.0			
2001	36	69	1.9	1.9	7,988	61,201	1.6
2002	70	114	1.6	2.8	8,907	78,171	1.8
2003	58	181	3.1	1.6	8,742	87,457	2.0
2004	44	97	3.1	1.7	9,335	71,238	1.7
2005					7,663	62,315	1.8
10-year average	63	77	1.8	2.8	8,527	72,076	1.8

[a] Opening weekend harvest data only from Cecil Andrus WMA. Opening weekend harvest data only in 1990.
[b] Telephone survey data at the regional level were not collected from 1996-2000.

Table 11. Gray partridge population characteristics and estimated harvest, Southwest Region, 1985-present.

	Production[a]			Telephone Survey[b]		
Year	Miles counted	Birds per mile	Birds counted	Hunters	Birds harvested	Birds per hunter day
1985				1,508	5,566	0.8
1986				1,610	6,645	0.7
1987				2,165	10,906	0.7
1988				1,809	11,951	1.1
1989				946	2,062	0.6
1990				1,835	9,648	1.0
1991	600	0.1	70	2,478	12,804	0.9
1992	660	0.1	55	1,800	6,600	0.9
1993	580	0.1	29	4,900	12,700	2.6
1994	560	0.1	20	4,300	11,000	0.4
1995	580	0.1	43	5,800	19,100	0.6
1996	260	0.1	9			
1997	660	0.1	67			
1998	640	0.1	42			
1999	540	0.2	125			
2000	540	0.2	96			
2001	620	0.1	60	3,452	16,451	0.8
2002	600	0.1	79	2,816	10,895	0.8
2003	540	<0.1	26	4,072	21,486	1.0
2004	500	0.2	122	2,891	13,826	0.6
2005	460	0.1	49	3,276	12,835	0.8
10-year average	536	0.1	68	3,301	15,099	0.8

[a] Brood routes were not conducted from 1985-1990.
[b] Telephone survey data at the regional level were not collected from 1996-2000.

Table 12. Estimated turkey harvest, Southwest Region, 1985-present.

Year Hunt	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
1985						
Controlled	4	20	20	7	7.3	51
General			158	18	22.4	404
1986						
Controlled	6	30	30	12		
General			228	58	12.1	700
1987						
Controlled	6	30	30	12	7.1	85
General			352	78	14.3	1,119
1988						
Controlled	4	22	22			
General			518	72	24.4	1,757
1989						
Controlled	4	22	22	7		
General			280	39	27.7	1,079
1990						
Controlled	2	10	9	0		42
General			270	33	25.4	838
1991						
Controlled	2	10	9	4	7.0	28
General			596	61	26.0	1,587
1992						
Controlled	0					
General			736	93	23.7	2,200
1993						
Controlled	0					
General			1,491	235	20.4	4,784
1994						
Controlled	0					
General			1,730	269	20.1	5,396
1995						
Controlled	0					
General			2,671	385	21.9	8,428
1996						
Controlled	1	15	13	10	9.2	92
General			2,682	494	19.0	9,397
1997						
Controlled	1	15	10	8	11.5	92
General			3,064	610	13.4	8,164
1998						
Controlled	1	30	24	11	10.4	114
General			3,420	700	14.4	10,100

Table 12. Continued.

Year Hunt	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
1999						
Controlled	1	75	75	38	5.7	217
General			5,300	1,280	14.4	18,424
2000						
Controlled	1	75	75	32	9.9	318
General			6,401	1,276	15.3	19,555
2001						
Controlled Spring	1	75	71	38	8.4	319
General Spring			5,680	988	18.4	18,140
Controlled Fall	1	750	403	315	3.0	948
2002						
Controlled Spring	1	70	66	32	8.6	275
General Spring			5,737	910	19.8	18,055
Controlled Fall	1	750	623	281	5.6	1,560
2003						
Controlled Spring	1	67	62	37	5.1	189
General Spring			5,797	1,230	15.4	18,961
General Fall			1,499	580	7.8	4,529
2004						
Controlled Spring	1	75	53	27		
General Spring			5,328	860	19.7	16,936
General Fall			1,742	602	8.6	5,214
2005[c]						
Controlled Spring	2	85	74	64	3.4	215
General Spring			6,250	992	18.0	17,877
General Fall			1,388	394	10.1	3,991

[a] Controlled hunts were not offered from 1992-1995.
[b] Fall hunt. All others are spring hunts.
[c] Ten-permit controlled youth hunt added spring 2005.

Table 13. Turkey translocation history for Southwest Region, 1966-present.

Year	Sub-species[a]	Release site-Unit	Birds released	New or supplemental release
1966	M	SF Boise River-39	12	N
1967	M	Wildhorse River-22	19	N
1970	M	Payette River at Banks-32	14	N
1979	M	Pine Creek-31	5	N
1982	R	Fort Boise WMA-38	24	N
	M	SF Salmon River-25	18	N
	M	Payette River at Banks-32	15	S
	M	Hornet Creek-22	4	S
	M	Fruitvale-22	1	S
	R	Kennedy WMA-38	16	N
	R	Goodrich Creek-22	19	N
1983	M	SF Boise River-39	15	S
	M	MF Boise River-39	15	N
	M	Cottonwood Creek-39	14	N
1984	R	Boulder Creek-40	27	N
1985	R	Boulder Creek-40	2	S
1986	M	Dead Dog Creek-39	17	N
	R	C.J. Strike WMA-40	14	N
1987	M	Porter Creek-39	10	N
	M	Harris Creek-39	10	N
1988	M	Harris Creek-39	10	S
	M	Porter Creek-39	7	S
	M	Eagleson Summit-39	11	N
1989	R	Boise River at Caldwell-38	14	N
1990	M	Cottonwood Creek-31	25	N
	M	Dukes Creek-22	28	N
	M	Indian Creek-22	28	N
	M	WF Brownlee Creek-31	28	N
	M	Hornet Creek-22	13	S
	M	Stack Rock-39	20	N
1993	M	Robie Creek-39	22	S
	M	Thorn Creek-39	24	N
	M	Wilderness Ranch-39	29	S
	M	Corral Creek-39	25	N
	M	Ola-32A	22	N
	M	Squaw Creek-32A	46	N
	M	Sturgill Creek-31	37	N
	R	Payette River-32	5	S
	R	Boise River-38	26	N
	R	Boise River-38	27	N
1994	R	Boise River-38	24	N
	R	Boise River-38	29	N
	M	Ola-32	22	S
	M	Squaw Creek-32	24	S
1995	M	Alder Creek-33	27	N
	M	MF Payette River-33	30	N
1996	R	Payette River WMA-38	20	N

Table 13. Continued.

Year	Sub-species[a]	Release site-Unit	Birds released	New or supplemental release
1997	R	Payette River WMA-32	18	N
	R	Payette River WMA-32	17	N
	M	Bunch Creek-33	18	N
	M	MF Payette River-33	33	S
	M	Keithly Creek-31	27	N
	M	Dennett Creek-33	27	N
1998	M	Little Weiser River-32	17	N
	M	Mann Creek-31	19	S
	M	SF Boise River-39	17	S
	R	Payette River WMA-32	17	N
	R	Payette River WMA-32	20	S
1999	R	Letha-32	24	N
	R	Payette River-32	26	N
	M	SF Boise River-39	17	S
2005	M	Garden Valley-33	32	S
	M	Bender Creek (Danskin Mts)-39	30	S
2006	M	Cottonwood Creek-39	60	S
	M	Willow Creek-39	25	S

[a] M = Merriam's, R = Rio Grande.

Table 14. Mourning dove call-count survey results and estimated harvest, Southwest Region, 1985-present.

	Call-count routes[a]		Telephone survey[b]		
Year	Miles counted	Doves heard/mile	Hunters	Birds harvested	Birds per hunter day
1985			4,326	44,746	2.6
1986			3,226	29,434	2.3
1987			2,635	26,675	2.5
1988			1,878	19,390	2.1
1989			2,490	19,295	2.0
1990			2,578	30,910	3.1
1991	600	4.5	2,410	25,733	2.4
1992	660	1.5	3,200	29,900	2.0
1993	580	0.3	7,100	73,200	2.1
1994	560	4.6	6,100	70,700	2.4
1995	480	2.2	7,200	66,100	2.3
1996	260	2.3			
1997	660	2.2			
1998	640	1.6			
1999	540	3.9			
2000	540	3.3			
2001	620	3.2			
2002	600	2.4			
2003	540	2.6			
2004	500	2.6			
2005	460	4.0			

[a] Data collected during pheasant brood route counts. Counts were not taken from 1985-1990.
[b] Telephone survey data at the regional level were not collected after 1995; harvest is reported directly to USFWS by hunters.

Table 15. Mourning doves banded in Southwest Region, 2003-present.

	Adult					
Year	Male	Female	Unknown	Hatch-year	Unknown	Total
2003	20	12	0	33	0	65
2004	31	10	10	49	0	100
2005	11	10	3	13	0	37
Total	62	32	13	95	0	202

Table 16. Estimated cottontail rabbit and snowshoe hare harvest, Southwest Region, 2003-present.

	Cottontail rabbit		Snowshoe hare	
Year	Hunters	Cottontails harvested	Hunters	Hares harvested
2003	1,137	4,094	25	17
2004	707	3,582	115	69
2005	874	4,528	58	48
3-year average	906	4,068	66	45

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Upland Game Surveys and Inventories
PROJECT:	W-170-R-30		
SUBPROJECT:	4	**STUDY NAME:**	Upland Game and Waterfowl Population Status and Trends
STUDY:	II		
JOB:	1		

PERIOD COVERED: April 1, 2005 to March 31, 2006

MAGIC VALLEY REGION

Climatic Conditions

Spring 2005 precipitation in the Magic Valley Region was substantially higher than long-term means. For example, the Burley Airport Weather Station received 8.47 inches of precipitation from April through June compared to the 1971-2000 mean of 3.12 inches. Similarly, a Malta weather station received 7.42 inches of rain from April through June compared to a 1971-2000 mean of 3.19 inches. The above average precipitation provided excellent nesting and early and late brood-rearing habitat conditions.

Trapping and Translocation

No trapping or translocation took place in Magic Valley Region for pheasant, California quail, forest grouse, sage-grouse, chukar, gray partridge, or turkey during the reporting period.

Pheasant

Abstract

Spring precipitation interrupted alfalfa harvest in May and early June and contributed to improved nest success and increased fall pheasant numbers. August roadside surveys yielded 0.42 pheasants per mile (PPM) in 2005, which was nearly double the 1996-2005 mean of 0.24 PPM. In 2005, harvest increased by 34% from 2004 but was only 40% of the estimated harvest in 1985. In the long-term, pheasant populations are expected to remain low given current farming practices. Occasional short-term increases will occur during years when the first alfalfa harvest is delayed by rain, allowing increased nesting success.

Population Surveys

August roadside surveys are used to monitor pheasant population trends and forecast hunting seasons. The 2005 PPM index of 0.42 was nearly double the 10-year mean of 0.24 (Table 1). Alfalfa harvest was interrupted during late May and early June by frequent rains improving conditions for successful first-nest attempts by pheasants.

Roadside survey data typically reflect higher pheasant densities in the western portion of Magic Valley Region than the eastern portion. From 1991-2005, the mean PPM of 0.34 on western routes (Jerome, west Twin Falls, west Lincoln, Gooding, Elmore counties) was significantly higher ($p<0.01$) than the mean of 0.17 PPM on eastern routes (Minidoka, Cassia, east Twin Falls, east Lincoln counties) ($t = 2.99$, 28df). In the eastern portion of the region, winters are typically more severe and habitat loss has been greater than in the western portion. In 2005, western routes averaged 0.50 PPM and eastern routes averaged 0.21 PPM.

No data were collected for estimating age ratios in October or hatching chronology. No winter sex ratio data was collected during the 2005-2006 reporting period.

Harvest Characteristics

Both pheasant hunters and pheasant harvest have declined precipitously in the region since the mid-1980s. In 2005, estimated harvest increased by 34% from 2004 but was only 40% of the estimated harvest in 1985 (Table 2).

Release of Pen-reared Pheasants

Pheasant stocking to provide "put-and-take" hunting opportunity occurred on BLM/Bureau of Reclamation tracts in Minidoka County (525 pheasants) and at Niagara Springs WMA (960 pheasants). Fifty of the pheasants stocked at Niagara Springs WMA were for the youth-only pheasant season.

At Niagara Springs WMA, an estimated 282 hunters harvested 682 birds in 1,297 total days of hunting. These data suggest that 71% of the stocked pheasants were taken by hunters. At a purchase cost of $10.80/bird or $10,368, the released birds were returned to the bag at a cost of $15.20/bird.

Management Studies

No management studies were conducted during the 2005-2006 reporting period.

Management Implications

Pheasant populations in Magic Valley declined dramatically during the early to mid-1980s following a series of severe winters. Pheasant numbers have remained depressed because of a shortage of winter habitat and lack of undisturbed nesting cover. Current farming practices are not compatible with supporting the higher density of pheasants that occurred in Magic Valley during the 1950s and 1960s. The widespread use of sprinkler irrigation has resulted in larger field sizes, less linear habitat (fence rows and ditches), and fewer uncultivated weedy areas, reducing the quality and quantity of winter and nesting habitat. In addition, the number of acres of farmland planted to alfalfa has increased to support the needs of the area's growing dairy industry. The increase in alfalfa acres has had negative effects on pheasants because alfalfa is harvested earlier (mid- to late May instead of early June) and more frequently (4-5 cuttings

instead of 3) now than it was 15 years ago. The result is that fewer pheasants can nest successfully in alfalfa, which is usually the best nesting cover available.

In the long term, the status of pheasant populations will be closely related to agricultural practices and their effect on habitat. Occasional short-term increases will occur during years when the first alfalfa harvest is delayed by rain, allowing increased nesting success. The current trend in intensive clean farming practices is expected to continue and further declines in pheasant habitat quantity and quality will follow. Magic Valley Region will continue to give priority to habitat improvement (HIP, Pheasant's Forever, BLM/IDFG Cooperative Wildlife Program) in pheasant recovery efforts. Providing adequate nesting habitat is currently viewed as the weak link in our habitat recovery efforts.

Quail

Abstract

August roadside surveys do not adequately sample quail habitat and have limited usefulness for predicting fall populations. Harvest in 2005 (16,647 birds) was 41% higher than the 10-year average.

Population Surveys

Only 7 of 28 August roadside routes survey quail habitat, resulting in poor predictive capabilities from survey data. However, the mean of 0.40 quail observed per mile in 2005 was the highest since the routes were implemented in 1990 (Table 3).

Harvest Characteristics

Quail populations in the region exhibit dramatic annual fluctuations in response to weather conditions during the hatch. During the past 21 years (1985-2005), estimated harvest has ranged from 1,375 birds in 1985 to 19,003 birds in 1996. Harvest in 2005 (16,647 birds) was 41% higher than the 10-year average (Table 3). Opening weekend check station data reveal the same trend with 0.00 birds checked/100 hunters in 1985 and 6.27 birds checked/100 hunters in 1996 (Table 4).

Management Implications

California quail in Magic Valley Region are associated primarily with Snake River and its tributaries west of Highway 93. Opportunities to enhance habitat will be pursued through HIP, and through riparian improvement opportunities with BLM, whenever possible. Increased residential development along Snake River is a serious threat to quail habitat. Increased attention to zoning and development plans may help slow the loss of habitat.

Forest Grouse

Abstract

No population surveys were conducted. The forest grouse harvest in 2005 declined 29% from 2004 but remained above harvest levels in the late 1980s and 1990s.

Population Surveys

No surveys were conducted during the 2005-2006 reporting period. Observations by hunters and agency personnel indicate that the distribution of ruffed grouse in the South Hills has expanded to include most available habitat since their introduction during 1987-1989.

Harvest Characteristics

Harvest of blue and ruffed grouse varied little from 2001-2004 and averaged 9,543 birds annually. Estimated harvest declined to 7,151 birds in 2005. Data suggest that forest grouse hunting has increased in popularity since the 1980s. From 2001-2005, approximately 2,900 hunters pursued forest grouse annually in the region compared to 450-800 hunters from 1985-1990 (Table 5).

At 2005 check stations, hunter success for ruffed grouse declined 51% from 2004 and was lower than the 10-year average. Similarly, blue grouse hunter success declined 67% from 2004 and was also lower than the 10-year average (Table 4).

Management Implications

Blue and ruffed grouse harvest will be monitored at sage-grouse and big game check stations. No population surveys are presently conducted for forest grouse but may be considered in the future in conjunction with research efforts.

Sage-grouse

Abstract

Lek route data suggest sage-grouse populations in Magic Valley Region have increased substantially since 1994 but are still below 1989 levels. The number of males counted on leks in 2006 was 166% higher than in 1994, 18% lower than in 1989, and relatively unchanged from 2005. Sage-grouse production in 2005, measured from wing collections, was 2.52 juveniles/adult hen, exceeding the 1965-2005 average of 2.00 juveniles/adult hen. Opening weekend check station data show a 52% decline in hunter participation since hunting seasons were made more conservative in 1996. During 2001-2005, the Magic Valley Region had approximately 40% of the statewide sage-grouse harvest and hunters. The long-term decline in sage-grouse populations has resulted from substantial loss and fragmentation of habitat from large range fires and the effects on habitat of successive years of drought during the late 1980s and early 1990s.

Population Surveys

Magic Valley Region conducts lek routes annually to monitor sage-grouse population trends. Lek route data suggest that sage-grouse populations in the region declined precipitously from 1987 to 1994 (69%), increased from 1995-1999 and then declined slightly from 2000-2002 before increasing again from 2003-2006. Although 21 routes were run in 2005 and 2006, 10 routes can be used to monitor population trends since 1987. In 2006, the number of males observed on the 10 comparable routes was relatively unchanged from the 2005 level. The total number of males counted on routes in 2006 was 82% of the number counted in 1987 and 166% higher than in 1994 (Figure 1).

Most leks do not occur on annual routes and are surveyed, as time permits, cooperatively by Department, BLM, and USFS personnel. In 2005, 287 different leks were surveyed. All lek data are entered into a statewide database that is provided for interagency use.

Wings from hunter-harvested sage-grouse (n = 853) were collected at 10 check stations and with wing barrels located at Shoshone Basin and Browns Bench. Estimated sage-grouse production in 2005 (2.52 juveniles/adult hen) was among the highest ever recorded. Only 7 years since 1965 have equaled or exceeded this level of production. Only twice since 1994 has the juvenile/hen ratio exceeded the 1965-2005 mean of 2.00 (Table 6).

Harvest Characteristics

Ten check stations are operated annually during opening weekend. Opening weekend participation declined substantially beginning in 1996 when more conservative seasons were implemented. The number of hunters checked declined 52% from a mean of 2,097 hunters from 1986-1995 to a mean of 1,009 hunters from 1996-2005. Despite improving sage-grouse numbers, opening weekend participation has remained relatively stable in recent years (Table 7).

Opening weekend hunter success in 2006 (0.84 birds/hunter) was the highest since 1990. In 2005, the effort required to harvest a grouse was 5.0 hours. From 1985-2005, hours/bird harvested ranged from 3.9 in 1990 to 11.6 in 1997 and averaged 7.5. According to the harvest survey, estimated harvest for the region has been relatively stable since 2000 except for a spike in harvest in 2003 (Table 7).

Management Implications

Sage-grouse populations in the region declined precipitously from 1987-1994. Sage-grouse numbers then increased steadily from 1995-1999 before declining slightly from 2000-2002 and increasing again from 2003 to 2006. Habitat loss and fragmentation are the primary cause of long-term sage-grouse declines. Fires have consumed more than a million acres of sagebrush-dominated habitat in south-central Idaho during the past 20 years. Combined with drought conditions, these fires have had catastrophic effects on sage-grouse nesting, brood-rearing, and winter habitats. Many areas have burned multiple times prohibiting the natural recovery of sagebrush. The increase in sage-grouse numbers since 1995 can be attributed to recovery of sagebrush in some burned areas. Reversing the long-term downward trend in sage-grouse

numbers is contingent on further reestablishment of sagebrush habitat where it has been lost. Regional personnel will continue to review and comment on BLM and USFS land management programs affecting sage-grouse habitat.

Implementation of the *Conservation Plan for Greater Sage-Grouse in Idaho* will be a priority in the upcoming reporting period for the Magic Valley Region. The region will continue to participate in the Shoshone Basin and Jarbidge sage-grouse local working groups. Both of these groups have draft plans that will be completed by 31 December 2006. Interim interagency sage-grouse teams for the South, East, and West Magic Valley planning areas met during the reporting period. Local working groups will replace these teams and begin meeting regularly by 31 December 2006.

Sharp-tailed Grouse

Abstract

Columbian sharp-tailed grouse populations in Magic Valley Region have increased slightly in recent years after declines in 2001 and 2002. Trapping and translocation operations continued for the sixteenth year. Since 1991, 1,077 sharp-tails have been captured in southeastern Idaho for reintroduction projects in Idaho, Oregon, Washington, and Nevada. Releases in the House Creek area continued and 2 active leks were documented. Three active leks were verified in the Shoshone Basin reintroduction area.

Population Surveys

Sharp-tailed grouse leks in Power, Oneida, and Cassia counties were surveyed in conjunction with trap and translocation efforts. In 2004, 2005, and 2006, the number of leks surveyed was 36, 39, and 34, respectively. Data were recorded in the statewide Columbian sharp-tailed grouse lek database. The mean size of surveyed leks has varied little during the past 5 years ranging from 9.0 birds/lek in 2002 to 10.5 birds/lek in 2006. Sharp-tailed grouse numbers have increased from 2001-2002 levels but remain lower than in 1998-2000.

Harvest Characteristics

Sharp-tailed grouse harvest in Magic Valley Region is primarily from Oneida and Power counties (Greater Curlew area); although an increasing numbers of grouse are being harvested from eastern Cassia County. Sharp-tailed grouse harvest data for the Magic Valley Region portion of the Greater Curlew area is displayed in the Southeast Region section of this report.

Trapping and Translocation

Idaho's Columbian sharp-tailed grouse translocation program began in 1991 with the goal of reestablishing populations of this subspecies in Idaho and other western states where suitable habitat exists. During 1991-2006, 1,077 Columbian sharp-tailed grouse (649 males, 428 females) were trapped in southeast Idaho for reintroduction projects in Idaho, Oregon, Washington, and Nevada. Five hundred twenty-four grouse were released in the Shoshone Basin

and House Creek areas, Twin Falls County, Idaho, and 553 birds were provided to the other states.

During 2003-2006, 165 sharp-tails were transplanted to the House Creek area in southwest Twin Falls County. In addition to having suitable habitat for Columbian sharp-tailed grouse, the House Creek area was selected for reintroduction efforts because it is relatively near Shoshone Basin (20 miles) and the Snake Mountains in Nevada (29 miles), where other reintroduction efforts have occurred. It is hoped these new populations will eventually link together. In April 2006, 2 leks were documented in the vicinity of the releases.

The status of the reintroduced Shoshone Basin population is unknown. Only 3 active leks were documented in 2006, but survey efforts were minimal and others undoubtedly exist. Sage-grouse hunters, ranchers, and agency personnel reported observations from Shoshone Basin, the Nat Soo Pah area, and the Sugarloaf-McMullen Creek area. Reports from the past 7 years encompass an area of over 200 mi^2.

Management Implications

Columbian sharp-tailed grouse numbers are currently strong as a result of the abundant habitat provided by the CRP program and mountain shrub communities on adjacent BLM lands. A statewide database of sharp-tailed grouse leks has been completed, which will facilitate the tracking of lek activity and attendance. Current sharp-tailed grouse population levels justify liberal hunting opportunity. The popularity of sharp-tailed grouse hunting has increased in recent years as both resident and non-resident hunters learn about southeast Idaho's healthy grouse populations. Results of the grouse reintroduction efforts in Shoshone Basin and House Creek are encouraging. Reintroduction efforts during the 2006-2007 reporting period will focus primarily on lek monitoring to determine the status of the new populations.

Chukar

Abstract

No chukar surveys were conducted in the region. Harvest data and hunter interviews indicated the highest chukar numbers and best chukar hunting in at least 21 years.

Population Surveys

No surveys for chukar populations were conducted in Magic Valley Region during the 2005-2006 reporting period.

Wings from hunter-harvested chukars are collected at opening weekend sage-grouse check stations to provide an index to the current year's production. The production index was 3.29 juveniles/adult in 2004 (n = 103), 4.2 juveniles/adult in 2003 (n = 151), and 2.4 juveniles/adult in 2002 (n = 81). Most of the wings collected were from the Bennett Hills.

Harvest Characteristics

The estimated chukar harvests in 2003 and 2004 were the highest recorded in the region during the previous 20 years. The 2005 harvest continued to increase an astounding 84% from 2004. Hunters took an estimated 21,017 birds in 2005, more than 4 times the 1985-2004 average of 4,950 birds annually. It should be noted that harvest within Magic Valley Region in Owyhee and Elmore counties is included with the Southwest Region data (Table 8).

Chukar harvest and population trend is monitored at 10 opening weekend sage-grouse check stations. Chukar checked per 100 hunters in 2003 (13.0) and 2004 (11.7) was also the highest recorded in the previous 20 years and remained high (9.3) in 2005 (Table 4).

Management Implications

No specific chukar population surveys will be undertaken in the region. Riparian habitat improvement in chukar areas will be encouraged, whenever possible, to benefit populations.

Gray Partridge

Abstract

Roadside survey and opening weekend check station data suggested above average numbers of gray partridge in intensively farmed areas and average densities of birds where sagebrush and/or CRP lands were an important part of the habitat.

Population Surveys

Roadside survey data suggest little change in gray partridge numbers from 1997-2004 (Table 9); however, these routes do not adequately sample uncultivated partridge habitat and, thus, do not provide data adequate to predict fall population status. In 2005, number of birds observed/mi. was more than double the 10-year average (Table 9), suggesting strong populations in cultivated areas.

Harvest Characteristics

Telephone survey data suggest a 25% increase in gray partridge harvest in 2005 from the 2004 level (Table 9). Estimated harvest from 1985-2005 has ranged from 1,900 birds to 22,000 birds, demonstrating the extreme population fluctuations observed in this species.

Hunter success trends are monitored at 10 opening weekend check stations that sample hunters mostly from uncultivated habitat. The number of gray partridge checked per 100 hunters in 2005 (3.2) was slightly higher than 2004 (2.4) but remained below the 10-year average of 4.2 (Table 4).

Management Implications

August roadside surveys and opening weekend check stations will continue to be used to monitor the status of gray partridge populations in the region. From 1997-2004, roadside survey data suggest relatively stable numbers of partridge, but number of birds checked on opening weekend in 1999-2003 increased to well above the long-term average. One possible explanation for the disagreement in these 2 indices is that roadside routes sample primarily farmland habitats, while opening weekend check stations sample sagebrush-dominated habitats. Weather-related factors have a substantial effect on short-term population fluctuations, but improving habitat remains the key to sustaining healthy populations in the long term. Magic Valley Region will continue to give priority to habitat enhancement (HIP, Cooperative Wildlife Program, Pheasants Forever) for gray partridge management.

Wild Turkey

Abstract

Magic Valley Region has limited opportunities to establish wild turkey populations. The Unit 54 population is expanding annually into available habitat, but the lack of winter habitat will continue to limit the potential of this population. In 2005, 3 12-permit hunts were authorized in Unit 54 and 31 hunters harvested 16 turkeys.

Trapping and Translocation

From 1988-2001, 152 Rio Grande turkeys were released at the Big Cottonwood WMA (Table 10). The population has expanded south to Trapper Creek and Oakley, west to Rock Creek, and up onto the Sawtooth National Forest. During the 2003-2004 winter, 8 nuisance turkeys were trapped in Oakley and transplanted to the Austin ranch in the Goose Creek drainage. After 2 breeding seasons, over 70 turkeys were counted on the ranch.

Harvest Characteristics

In 2005, 3 12-permit spring hunts were authorized in Unit 54, including 1 hunt that was for youth hunters only. Sixteen of 31hunters that hunted were successful (Table 11).

Management Implications

Opportunities to establish self-sustaining turkey populations in Magic Valley Region are limited without supplemental feeding during winter. Releases in Units 53 and 55 have failed to establish populations. Turkeys near Pine and Featherville in Unit 43 have essentially disappeared because of the severity of winters and lack of a winter food source. The turkey population in Unit 54 is expanding and turkeys have become a nuisance around several farms near Oakley and Big Cottonwood WMA. Winter habitat is the primary limiting factor for turkeys in Unit 54.

Mourning Dove

Abstract

Doves observed on roadside routes indicate dove abundance in August 2003 (3.4 doves/mi.) was higher than the 1993-2002 mean of 2.0 doves/mi.

Population Surveys

Department personnel, in cooperation with USFWS, collect data on 4 call-count routes in Magic Valley Region.

On August roadside surveys, doves observed has ranged from 1.3 doves/mi. in 2000 to 4.8 doves/mi. in 1990 and averaged 2.6 doves/mi. In 2005, 4.1 doves/mi. were observed suggesting that higher than average dove numbers were available to hunters in early September (Table 12).

Trapping and Banding

Magic Valley Region has participated in a statewide effort to trap and band mourning doves since 2003 (Table 13). In 2003, 200 doves were banded at 8 sites. All doves received a standard leg band on the right leg, and for all odd-numbered bands, a gold band was placed on the opposite leg. In 2004, a total of 185 doves were banded at 6 sites. All doves received a standard leg band; hatch-year doves also received a reward band on the opposite leg. In 2005, 199 doves were banded at 4 locations (Rockland, Jerome, Niagara Springs WMA, and Murtaugh). All doves received a standard leg band in 2005. Banding will continue in the 2006-2007 reporting period.

Harvest Characteristics

Harvest information on mourning doves is collected via the USFWS harvest survey. A telephone survey of hunters has not been conducted since 1996 (Table 12).

Management Implications

Roadside survey data collected in the 1980s suggest that as many as 50% of doves have migrated out of the Magic Valley area by the opening of hunting season on 1 September. The onset of cooler weather, usually in early September, triggers movement of many remaining doves. Spring call-count routes and August roadside surveys will be continued to monitor dove trends and abundance.

Cottontail Rabbits

Population Surveys

Cottontail rabbits are counted on the 28 roadside surveys conducted each August in Magic Valley Region. On 2002, 2003, 2004, and 2005 routes, 12, 15, 13, and 16 cottontails, respectively, were observed compared to only 4 each year from 1999-2001.

Harvest Characteristics

Hunters typically pass up cottontails on opening weekend. No cottontails were checked on opening weekend in 2003, 2004, and 2005 (Table 4). A telephone survey estimated that 1,089 hunters harvested 7,550 cottontails in 2005 (Table 14).

Management Implications

Habitat projects implemented for pheasants, gray partridge, and quail through the HIP program and BLM/IDFG Cooperative Wildlife Management Program will benefit rabbits.

American Crow

The American crow will continue to be a species with no active management.

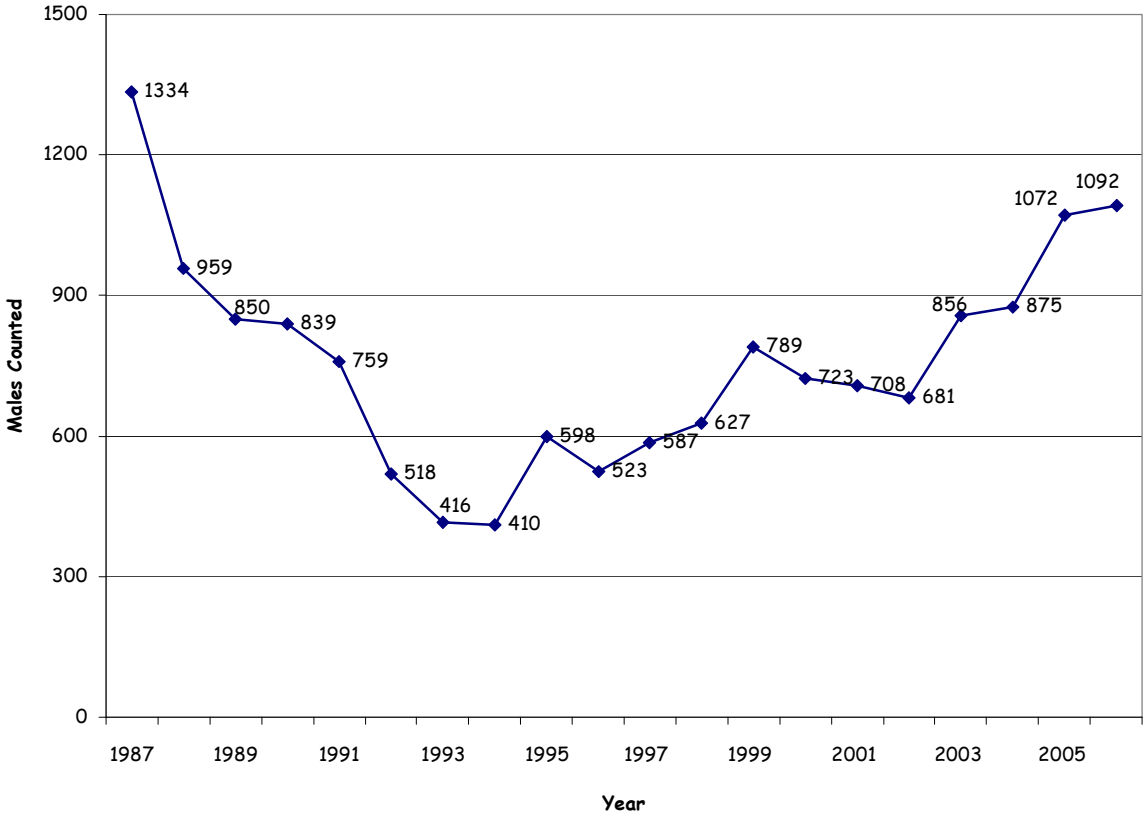


Figure 1. Total male greater sage-grouse counted on 10 comparable lek routes, Magic Valley Region, 1987-present.

Table 1. Pheasant population characteristics and production, Magic Valley Region, 1985-present.

Year	Winter sex ratio: Hens per cock	Winter sex ratio: *n*	Routes (miles) counted	Birds per mile	Percent unsuccessful females	Juv:100 adult females	Brood size: *n*	Brood size: Average
1985	3.2	359	12 (530)	0.47	11	670	31	6.6
1986	1.6	397	13 (768)	0.36	14	803	50	6.3
1987	1.8	490	13 (789)	0.25	6	631	50	6.1
1988	3.0	809	14 (858)	0.34	13	723	32	5.8
1989	2.1	884	14 (854)	0.27	16	554	24	6.1
1990[a]	1.9	1,333	14 (854)	0.52	29	742	31	6.2
			28 (575)	0.54	30	447		
1991			28 (575)	0.33	43	529	22	4.9
1992	2.2	1,572	28 (575)	0.42	26	361	19	5.2
1993	1.3	455	28 (575)	0.22	35	465	8	6.9
1994	2.0	757	28 (575)	0.56	14	727	16	5.9
1995	1.9	1,483	28 (575)	0.13	33	683	8	4.8
1996	2.0	741	28 (575)	0.41	17	555	21	5.8
1997			28 (575)	0.12	22	611	7	5.6
1998			28 (575)	0.19	17	741	10	6.0
1999	1.4	271	28 (575)	0.27	13	870	13	6.9
2000			28 (575)	0.20	45	380	11	4.8
2001	2.7	214	28 (575)	0.14	20	530	8	6.6
2002			28 (575)	0.12	27	427	8	4.5
2003			28 (575)	0.31	23	636	14	6.1
2004			28 (575)	0.22	9	982	8	8.3
2005			28 (573)	0.42	35	468	21	5.8
10-year average				0.24	23	620	12	6.0

[a] Survey was modified in 1990. Both the old and new surveys were conducted to allow continuity of trend data.

Table 2. Estimated pheasant harvest, Magic Valley Region, 1985-present.

Year[a]	Hunters	Birds harvested	Birds per hunter	Birds per hunter-day
1985	14,013	51,330	3.7	0.7
1986	12,288	33,810	2.8	0.6
1987	8,910	25,854	2.9	0.6
1988	6,707	25,278	3.8	0.8
1989	6,037	20,521	3.4	0.6
1990	8,644	36,602	4.2	0.8
1991	7,576	24,411	3.2	0.6
1992	6,603	27,347	4.1	0.7
1993	5,071	24,769	4.9	0.7
1994	3,802	24,629	6.5	1.0
1995	4,975	20,289	4.1	0.6
1996	7,200	17,551	2.4	0.6
2001	5,491	19,368	3.5	0.6
2002	4,621	11,677	2.5	0.5
2003	5,579	13,622	2.4	0.6
2004	6,644	15,317	2.3	0.6
2005	5,298	20,595	3.9	0.6
3-year avg.	5,840	16,511	2.8	0.6

[a] Telephone survey data at the regional level were not collected from 1997-2000.

Table 3. California quail population characteristics and estimated harvest, Magic Valley Region, 1985-present.

	Brood routes[a]		Telephone survey[b]		
Year	Routes (miles) counted	Birds per mile	Hunters	Birds harvested	Birds per hunter-day
1985			435	1,375	1.0
1986			615	4,170	1.8
1987			342	1,599	2.0
1988			534	2,685	1.4
1989			306	2,362	2.4
1990	28 (575)	0.15	946	6,446	1.6
1991	28 (575)	0.15	688	5,624	1.4
1992	28 (575)	0.06	726	3,199	0.8
1993	28 (575)	0.21	1,113	5,195	1.6
1994	28 (575)	0.18	955	5,300	1.3
1995	28 (575)	0.14	1,198	14,215	1.7
1996	28 (575)	0.08	1,642	19,003	2.3
1997	28 (575)	0.08			
1998	28 (575)	0.13			
1999	28 (575)	0.19			
2000	28 (575)	0.04			
2001	28 (575)	0.02	1,444	13,345	1.8
2002	28 (575)	0.23	1,250	4,001	1.1
2003	28 (575)	0.17	1,070	4,706	1.9
2004	28 (575)	0.18	1,618	12,949	1.6
2005	28 (573)	0.40	1,086	16,647	2.2
10-year avg.		0.15	1,351	11,775	1.8

[a] Brood routes were not conducted from 1985-1989.
[b] Telephone survey data at the regional level were not collected from 1997-2000.

Table 4. Trend of upland game species harvested per 100 hunters checked at stations on opening weekend of the grouse, quail, and partridge season, Magic Valley Region, 1985-present.

Year	Sage grouse	Blue grouse	Ruffed grouse	Chukar partridge	Gray partridge	Mourning dove	CA quail	Cottontail/ pygmy rabbit[a]	Hunter numbers
1985	59.9	1.9	0.00	0.3	2.4	0.1	0.00	0.04	2,153
1986	77.0	0.4	0.00	1.7	3.7	0.5	0.07	0.11	2,824
1987	85.3	0.3	0.04	2.6	4.4	0.6	1.12	0.61	2,684
1988	85.1	0.1	0.00	2.5	2.6	1.6	1.46	0.41	2,459
1989	78.3	0.4	0.10	1.3	1.2	1.5	0.10	0.40	2,037
1990	118.3	0.6	0.13	1.7	2.6	0.3	0.25	1.88	2,393
1991	62.8	0.2	0.20	1.8	1.7	0.9	0.37	0.00	2,449
1992	47.0	0.3	0.54	1.1	0.9	0.3	1.03	1.08	1,852
1993	42.1	0.4	0.00	0.3	0.2	2.7	0.87	0.00	1,731
1994	72.7	1.1	0.25	1.1	2.0	0.8	4.30	0.00	1,629
1995	35.5	0.6	0.24	1.4	2.2	2.3	1.18	0.00	1,269
1996	55.3	0.8	0.51	6.9	3.7	0.1	6.27	0.10	989
1997	38.7	0.7	0.00	3.6	2.1	1.5	0.38	0.10	1,048
1998	53.0	1.2	0.00	5.1	3.4	0.5	0.00	0.00	938
1999	59.0	2.7	0.00	7.1	7.4	0.5	1.25	0.54	1,121
2000	50.2	2.2	0.30	8.5	7.9	2.6	1.68	0.00	1,011
2001	56.8	0.2	1.35	10.1	5.3	2.2	2.98	0.45	1,108
2002	49.0	1.9	1.18	8.5	2.8	0.7	0.45	0.36	1,103
2003	56.9	0.3	0.25	13.0	4.3	0.4	0.66	0.00	1,206
2004	54.4	1.2	0.59	11.7	2.4	1.0	1.09	0.00	1,193
2005	78.4	0.4	0.29	9.3	3.2	0.5	0.38	0.00	1,045
10-year average	55.1	1.2	0.45	8.4	4.3	1.0	1.5	0.16	1,076

[a] The pygmy rabbit season was closed in 2002.

Table 5. Estimated forest grouse harvest, Magic Valley Region, 1985-present.

Year[a]	Hunters	Birds harvested	Birds per hunter	Birds per hunter-day
1985	472	768	1.6	0.8
1986	724	2,322	3.2	0.8
1987	634	2,002	3.2	0.8
1988	804	3,243	4.0	0.9
1989	639	2,182	3.4	1.1
1990	765	3,097	4.0	0.7
1991	922	4,357	4.7	1.1
1992	1,102	3,226	2.9	0.9
1993	2,814	4,329	1.5	0.4
1994	1,910	5,544	2.9	0.7
1995	1,990	5,138	2.6	.05
1996	1,408	5,631	4.0	1.0
2001	2,847	10,001	3.5	0.8
2002	3,083	8,470	2.7	0.6
2003	2,951	9,641	3.3	0.7
2004	3,260	10,060	3.1	0.6
2005	2,212	7,151	3.2	0.6
3-year avg.	2,807	8,950	3.2	0.6

[a] Telephone survey data at the regional level were not collected from 1997-2000.

Table 6. Greater sage-grouse production based on wing collections, Magic Valley Region, 1985-present.

Year	Juv:100 females	Juv:100 adults	% unsuccessful females
1985	252	155	48
1986	244	161	37
1987	142	90	43
1988	120	77	56
1989	194	125	50
1990	239	146	48
1991	102	67	80
1992	117	63	78
1993	147	107	50
1994	323	213	76
1995	136	82	60
1996	159	104	61
1997	165	103	65
1998	205	138	65
1999	178	110	60
2000	121	76	68
2001	160	96	78
2002	199	138	71
2003	179	123	70
2004	177	122	74
2005	252	139	79
10-year average	203	128	74

Table 7. Estimated Greater sage-grouse harvest, Magic Valley Region, 1985-present.

	Check station				Telephone survey[a]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds harvested	Birds per hunter-day
1985	2,153	1,290	0.60	7.4	1,788	2,513	0.8
1986	2,824	2,169	0.77	5.6	2,280	4,158	0.9
1987	2,359	1,961	0.83	5.3	2,526	6,743	1.2
1988	2,459	2,092	0.85	5.3	2,969	6,451	1.0
1989	2,018	1,580	0.78	5.5	2,107	4,548	0.6
1990	2,375	2,833	1.19	3.9	4,205	20,584	1.5
1991	2,429	1,525	0.63	7.5	4,121	8,239	0.7
1992	1,847	870	0.47	9.9	3,256	7,710	0.9
1993	1,709	729	0.43	11.3	5,288	6,672	0.4
1994	1,647	1,213	0.74	6.2	4,177	11,331	0.9
1995	1,303	520	0.40	11.1	4,285	8,062	0.6
1996	938	555	0.59	6.5	6,615	8,269	2.8
1997	1,033	421	0.41	11.6			
1998	888	497	0.56	7.2			
1999	1,036	661	0.64	6.2			
2000	1,009	556	0.55	7.7	2,513	3,280	0.6
2001	873	479	0.55	8.0	2,440	3,138	0.6
2002	1,029	540	0.52	8.4	2,677	3,066	0.5
2003	1,127	686	0.61	6.7			
2004	1,164	623	0.54	7.2	3,012	3,173	0.6
2005	989	833	0.84	5.0	2,284	3,185	0.8
10-year average	1,008	557	0.55	7.7	3,191	4,088	0.9

[a] Telephone survey data at the regional level were not collected from 1997-1999. Telephone survey data for 2003 is not available.

Table 8. Estimated chukar harvest, Magic Valley Region, 1985-present.

Year[a]	Hunters	Birds harvested	Birds per hunter	Birds per hunter-day
1985	764	2,092	2.7	0.7
1986	919	3,125	3.4	1.0
1987	1,151	3,394	2.9	0.8
1988	973	1,805	1.9	0.6
1989	594	1,546	2.6	1.0
1990	1,383	4,312	3.1	1.1
1991	721	3,871	5.4	1.9
1992	857	1,487	1.7	1.2
1993	1,763	4,360	2.5	0.6
1994	1,105	3,371	3.1	0.9
1995	1,584	5,788	3.7	0.9
1996	1,408	7,273	5.2	1.2
2001	2,207	7,250	3.3	0.8
2002	1,753	6,966	4.0	1.1
2003	2,171	11,110	5.1	1.2
2004	2,725	11,450	4.2	1.1
2005	2,237	21,017	9.4	1.6
3-year avg.	2,481	16,233	6.8	1.3

[a] Telephone survey data at the regional level were not collected from 1997-2000.

Table 9. Gray partridge population characteristics and estimated harvest, Magic Valley Region, 1985-present.

	Production					Telephone survey[a]		
Year	Routes (miles) counted	Birds per mile	Birds	Brood size	*n*	Hunters	Birds harvested	Birds per hunter day
1985	12 (530)	<0.02	12	9.0	2	923	3,644	0.9
1986	13 (768)	0.20	156	11.8	13	1,223	4,012	0.7
1987	13 (789)	0.24	192	8.2	22	1,183	4,427	0.9
1988	14 (858)	0.18	149	8.9	13	757	2,578	0.7
1989	14 (854)	0.20	170	10.6	13	628	1,921	0.6
1990[b]	14 (854)	0.19	157	10.1	15	1,773	9,361	1.1
		0.35	195					
1991	28 (575)	0.18	111	9.7	9	1,295	2,805	0.5
1992	28 (575)	0.22	123	7.5	11	1,038	3,932	0.8
1993	28 (575)	0.13	71	8.4	17	1,886	6,741	0.9
1994	28 (575)	0.21	112	11.2	10	1,555	5,188	0.7
1995	28 (575)	0.08	45	11.2	4	2,092	8,834	0.8
1996	28 (575)	0.41	244	14.6	16	3,050	22,053	1.1
1997	28 (575)	0.11	62	10.2	6			
1998	28 (575)	0.15	83	11.9	7			
1999	28 (575)	0.11	63	12.2	5			
2000	28 (575)	0.15	86	7.1	8			
2001	28 (575)	0.10	54	7.7	8	2,751	10,133	0.6
2002	28 (575)	0.09	49	9.4	5	1,162	2,753	0.6
2003	28 (575)	0.14	77	10.7	7	2,789	7,277	0.8
2004	28 (575)	0.13	73	10.7	7	2,612	9,272	0.6
2005	28 (573)	0.35	200	13.3	12	2,242	11,576	0.8
10-year average		0.17	99	10.8	8	2,434	10,510	0.8

[a] Telephone survey data at the regional level were not collected from 1997-2000.
[b] Survey was modified in 1990. Both the old and new surveys were conducted to allow continuity of trend data.

Table 10. Turkey translocation history for the Magic Valley Region, 1982-present.

Year	Sub-species[a]	Release site-Unit	Number of birds released	New or supplemental release
1982	R	Niagara Springs-53	20	N
1983	R, M	Almo-55	19	N
1984	R	Almo-55	10	S
1988	R	Big Cottonwood-54	17	N
1994	R	Big Cottonwood-54	6	S
1995	R	Big Cottonwood-54	14	S
1996	R	Big Cottonwood-54	8	S
1998	R	Big Cottonwood-54	55	S
1999	R	Big Cottonwood-54	12	S
2001	R	Big Cottonwood-54	40	S

[a] M = Merriam's; R = Rio Grande.

Table 11. Estimated turkey harvest, Magic Valley Region, 1985-present.

Year Hunt[a]	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
1985						
Controlled	2	10	10	4	5.0	20
1986						
Controlled	3	15	15	5	8.4	42
1987						
Controlled	6	21	21	4	15.3	61
1988						
Controlled	6	21	21	9	6.9	62
General			93	0		56
1989						
Controlled	6	21	21	9		
General			31	3	39.6	119
1990						
Controlled	3	6	6	2	3.2	19
General			18	1	39.0	39
1991						
General			58	3	62.7	118
1992						
General			8	2	4.0	8
1993						
General			10	0		118
1994-1996	Closed					
1997						
Controlled (youth)	1	3	3	3		
1998						
Controlled (youth)	Canceled					
1999-2001	Closed					
2002						
Controlled	1	3	3	3	1.7	5
Controlled (youth)	1	3	3	3	2.7	8
2003						
Controlled	2	8	8	8	3.4	27
Controlled (youth)	1	4	2	2	1.0	2
2004						
Controlled	2	16	14	13		
Controlled (youth)	1	8	6	6		
2005						
Controlled	2	24	23	11	8.5	93
Controlled (youth)	1	12	8	5	8.8	42

[a] Regular controlled hunts were closed from 1991-2001 and reopened in 2002. A controlled youth-only hunt was initiated in 1997, closed from 1998-2001, and reopened in 2002. General season was initiated in 1988 and discontinued in 1994.

Table 12. Mourning dove August roadside survey results and estimated harvest, Magic Valley Region, 1985-present.

	August roadside routes		Telephone survey[a]		
Year	Routes (miles) counted	Doves observed/mile	Hunters	Birds harvested	Birds per hunter day
1985			1,593	21,505	2.89
1986	7 (413)	2.0	1,703	18,122	3.92
1987	13 (788)	2.5	1,384	15,121	2.02
1988	15 (911)	2.0	1,003	9,333	2.89
1989	14 (854)	2.4	1,273	10,424	3.11
1990[b]	14 (829)	4.8	1,208	17,828	3.43
	28 (575)	3.1			
1991	28 (575)	2.0	1,290	17,983	3.12
1992	28 (575)	1.8	1,303	16,991	4.12
1993	28 (575)	1.8	3,680	33,644	1.7
1994	28 (575)	3.3	2,266	26,633	3.2
1995	28 (575)	1.8	2,802	26,238	2.3
1996	28 (575)	2.2	3,262	47,091	2.6
1997	28 (575)	2.2			
1998	28 (575)	2.4			
1999	28 (575)	3.7			
2000	28 (575)	1.3			
2001	28 (575)	2.2			
2002	28 (575)	2.5			
2003	28 (575)	3.4			
2004	28 (575)	3.3			
2005	28 (573)	4.1			
10-year average		2.7			

[a] Telephone survey data at the regional level were not collected after 1996; harvest is reported directly to the USFWS by hunters.
[b] Survey was modified in 1990. Both the old and new surveys were conducted to allow continuity of trend data.

Table 13. Mourning doves banded in Magic Valley Region, 2003-present.

	Adult					
Year	Male	Female	Unknown	Hatch-year	Unknown	Total
2003	47	45	6	96	6	200
2004	65	14	2	104	0	185
2005	85	27	1	86	0	199
Total	197	86	9	286	6	584

Table 14. Estimated cottontail rabbit and snowshoe hare harvest, Magic Valley Region, 2004-present.

	Cottontail rabbit		Snowshoe hare	
Year	Hunters	Cottontails harvested	Hunters	Hares harvested
2004	1,271	9,675	139	54
2005	1,089	7,550	126	1,948
2-year average	1,180	8,613	133	1,001

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Upland Game Surveys and Inventories
PROJECT:	W-170-R-30		
SUBPROJECT:	5	**STUDY NAME:**	Upland Game and Waterfowl Population Status and Trends
STUDY:	II		
JOB:	1		

PERIOD COVERED: April 1, 2005 to March 31, 2006

SOUTHEAST REGION

Climatic Conditions

Environmental conditions during the critical months of nesting were fair during spring 2005. Conditions improved with precipitation at or above normal for the 2005-2006 winter; snow-pack measurements averaged 90-110% of the 30-year mean for most of Southeast Region. Summer conditions were dry, with some slight relief in late summer/early fall resulting from short duration thundershowers and cooler temperatures.

Trapping and Translocation

No trapping or translocation took place in Southeast Region for pheasant, forest grouse, sharp-tailed grouse, chukar, or gray partridge during the reporting period.

Pheasant

Abstract

Subjective evaluation of pheasant numbers indicates relatively stable populations in parts of Southeast Region and gradual increases in others. Hunter check stations were operated at 2 locations on opening weekend. A telephone harvest survey to provide estimates of total regional harvest, effort, and participation was conducted.

Population Surveys

No population surveys have been conducted in the region since 1999 (Table 1). Brood route surveys were discontinued at that time due to low numbers of birds seen.

Harvest Characteristics

In 2005, a slight decrease in hunter numbers (17%) was seen at American Falls and Tilden Bridge check stations, but number of birds harvested was 71% greater compared to 2004 (Table 2).

A telephone survey estimated that 3,965 hunters harvested 14,887 pheasants in 2005 (Table 2). According to the survey, harvest increased (21%) from 12,222 birds harvested in 2004.

Release of Pen-reared Pheasants

There were 2,700 fully-grown game-farm cocks released on the Sterling WMA during fall 2005. Game-farm birds have been released on the WMA historically to provide hunters with additional opportunity. Bag limit for pheasants on the WMA remained 3 birds. Adults hunting on WMAs where game-farm pheasants were released were required to obtain a WMA pheasant permit.

Management Implications

Declining habitat quality due to changes in farming practices has resulted in a decline in pheasant numbers in Southeast Region from levels of 10-20 years ago. Until the quantity and quality of available habitat increases, pheasant numbers will likely remain below historical levels. The U.S. Department of Agriculture's CRP program enrolled over 400,000 acres in Southeast Region during 1985-1995 (25% have potential as pheasant habitat), but its effect on pheasant production is unclear at this time. The CRP program was extended for another 10 years beginning in 1997. During the initial 1997 enrollment period, 288,978 acres in Southeast Region were accepted. It is currently unknown what impact a decrease in CRP acreage in Southeast Region would have on pheasant populations. The Department's HIP program, begun in 1987, is also contributing toward increasing available cover and forage locally by capitalizing on private land development. CRP acreages will decrease region wide as a result of new enrollment practices and funding. It is currently unknown how much this will effect pheasant populations.

Forest Grouse

Population Surveys

Data on age characteristics of forest grouse populations are collected in Southeast Region from voluntary wing drop barrels placed during hunting season. Fourteen wing barrels were placed throughout the region during 2005. Wide variations in numbers of wings collected make it difficult to draw conclusions about individual year's harvest or populations based on this data.

A total of 30 blue grouse wings were collected in 2005, a 62% decrease from 2004 (Table 3). The ratio of juveniles:100 adults for blue grouse increased from 66 in 2004 to 100 in 2005, but still lower (59%) than the 10-year average.

A total of 112 ruffed grouse wings were collected in 2005, a 60% decrease from 2004 and 71% lower than the 10-year average (Table 3). The ratio of juveniles:100 adults increased from 177 in 2004 to 229 in 2005, slight higher (14%) than the 10-year average.

Harvest Characteristics

In recent years, harvest data on forest grouse has been collected from 2 sources, the telephone survey and voluntary wing drop barrels. Telephone survey data provides information on

numbers of hunters, birds harvested, and hunter success. Wing barrels provide more immediate feedback to managers plus information on sex and age of birds harvested.

Telephone survey data estimated that 2,758 hunters harvested 14,118 forest grouse in 2005 (Table 4). According to the 2005 survey, harvest decreased slightly (8%) from 15,380 birds harvested in 2004.

Management Implications

Management of forest grouse consists largely of data collection and analysis of impacts to habitat. Indications from harvest and production data over the last 15 years suggest a trend in more hunters harvesting a greater number of birds. Populations of forest grouse can vary widely from year to year, based on annual production.

Sage-grouse

Abstract

Estimates of sage-grouse production in 2005 indicated an increase throughout southeast Idaho compared to 2004 levels; however, sample sizes were very small. Male grouse counted on leks was higher on some routes and lower on others compared to 2004.

Population Surveys

Lek count routes in recent years have included 4 leks in Bingham and Power counties, 16 leks in Oneida County, 35 leks in Butte and Blaine counties, and 3 leks each in Bear Lake and Caribou counties (Table 5).

Reproductive information for sage-grouse was derived from wing collections at wing barrels and a hunter check station. Due to a closure of hunting on the Big Desert from 1996-2001, no wings were collected from that area during that period (Table 6). Following the reopening of that area in 2002, wing collection has been variable. Wings collected in 2003, 2004, and 2005 were 141, 34, and 143, respectively.

The Curlew Grasslands were closed to hunting in 2002; therefore, wings collected from Caribou County were included in the Bear Lake data set (Table 6).

A total of 160 sage-grouse wings were collected in Southeast Region in 2005 (Table 6). The overall ratio of juveniles:100 adults was 186. It is difficult to relate this level of production to recent years since, from 1996-2001, nearly all wings were collected in the Curlew Valley and from 2002-2005, nearly all wings were from the Big Desert.

Harvest Characteristics

A hunter check station was operated at American Falls on opening weekend of the season in 2005. Hunting effort appeared to be very low compared to the years prior to the season closure

(1996-2001). Bag and possession limits and season length have been significantly reduced from earlier years.

Telephone survey estimates indicate 429 hunters harvested 403 sage-grouse in 2005, an average of 0.5 birds harvested per day (Table 7). In 2005, number of hunters was higher than in 2004 (342) and number of birds harvested was greater than in 2004 (382).

Trapping and Translocation

Thirty-three sage-grouse were radio-collared in the Greater Curlew area during spring 2002. Birds were monitored through the nesting and brood-rearing season and into the winter months, primarily to identify areas of use during those periods. Monitoring was continued through spring 2003, although no additional birds were marked. Eighteen sage-grouse were captured and radio-collared in winter 2004 to determine sage-grouse wintering habitat in the Greater Curlew area. The study will continue until 2008.

Management Implications

Production of sage-grouse appeared to increase; however, sample sizes were small. Hunter harvest, success, and/or lek count data suggest populations at low levels. Big Desert harvest has been variable since reopening in 2002. A continuing decline in lek counts in the Curlew Valley led to a recommendation to close the area to hunting in 2002. Persistent drought during the late 1980s and early 1990s, and long-term declines in habitat quantity/quality may partially explain the downward trend of populations over the years.

A local working group (LWG) consisting of representatives of several interest groups and government agencies was formed during 1998 to examine the status and trend of sage-grouse and their habitat in the Greater Curlew area and to offer suggestions for future management. In 2003, the Idaho Sage-grouse Advisory Committee was formed consisting of a representative from each LWG across the state, including the Curlew LWG, as well as interest groups and government agencies. A draft sage-grouse conservation plan was sent out for public comment in March 2006 and the final plan was adopted and signed by Governor Risch on July 10, 2006. It can be found on the Department's website at http://fishandgame.idaho.gov/cms/hunt/grouse.

Sharp-tailed Grouse

Abstract

Age-ratio data of wings indicated an increase in sharp-tailed grouse production during 2005 compared to 2004; however, the ratio of juveniles:100 adults was still below the recent 10-year average. Two of the 5 established lek routes in the region were checked in 2005.

Population Surveys

Wing barrels placed throughout the region provide the majority of wings collected. Data analysis of sharp-tailed grouse wings (n = 169) indicated a increase in the ratio of juveniles:100

adults (74:100) from 2004 (39:100) levels (Table 8). The 2005 ratio was less than the previous 10-year average of 94.

Two of 5 established lek routes in the region were surveyed during 2005 (Table 9). The Pocatello Valley route increased from 59 to 86 males observed from 2004 to 2005, respectively. The Downey route decreased from 54 to 48 males observed from 2004 to 2005, respectively.

Harvest Characteristics

For the Greater Curlew area, telephone survey estimates indicate 779 hunters harvested 1,593 sharp-tailed grouse in 2005, an average of 1.0 birds harvested per day (Table 10). In 2004, 646 hunters harvested 1,587 birds, and birds per hunter day (1.0) was the same.

Outside the Greater Curlew area, telephone survey estimates indicate 991 hunters harvested 1,881 sharp-tailed grouse in 2005, an average of 0.8 birds harvested per day (Table 10). In 2004, 742 hunters harvested 1,825 birds, and birds per hunter day (0.8) remained the same.

For the region, telephone survey estimates indicate 1,770 hunters harvested 3,474 sharp-tailed grouse in 2005, an average of 0.9 birds harvested per day (Table 11). In 2004, 1,388 hunters harvested 3,412 birds, and birds per hunter day (0.9) also remained the same.

Management Implications

Currently, the single most important factor affecting sharp-tailed grouse populations in Southeast Region is believed to be the CRP program. During 1985-1997, over 400,000 acres of cropland have been planted with various grass/forb mixtures within present sharp-tailed grouse range. During the 1997 reenrollment period, 288,978 acres were accepted for another 10 years. Much of this acreage lies within sharp-tailed grouse range. Recent harvest data suggest a substantial increase in populations has occurred in the last decade. As previously mentioned, the existing CRP acreage in Southeast Region will decrease over the next few years; this is anticipated to have some impact on sharp-tailed grouse.

Trapping and Translocation

See Magic Valley Region section.

Chukar

Population Surveys

Few, if any, chukar wings are collected in voluntary hunter wing barrels. Chukars are occasionally sighted incidental to deer and elk surveys during winter. Little suitable habitat and restricted populations exist within Southeast Region. Areas known to support limited chukar populations at present are the northeast corner of Unit 70 near Pocatello, the Blackrock area in Unit 71, and several portions of Unit 73 near Malad including east of Interstate Highway 15 and the Samaria Mountains. Private, unauthorized releases of pen-raised chukars are frequent

occurrences. Survival of those birds is believed to be extremely low, with no evidence of self-supporting populations resulting.

Harvest Characteristics

Telephone survey estimates indicate 326 hunters harvested 614 chukars in 2005, an average of 0.6 birds harvested per day (Table 12). According to the survey, number of hunters decreased compared to 2004 but number of birds harvested increased.

Management Implications

Management of these populations will be incidental to other upland game bird species. The main source of information on status of populations is currently incidental sightings and reports. Lack of suitable habitat will continue to limit populations.

Gray Partridge

Population Surveys

No data were collected on gray partridge populations. Some gray partridge wings are collected in voluntary hunter wing barrels; however, sample sizes are generally small and have not been analyzed for several years in Southeast Region.

Harvest Characteristics

Estimates vary widely from year to year, due primarily to small sample sizes from the region. A regional telephone harvest survey was conducted during 2005. Gray partridge harvest increased substantially from the previous year with 18% fewer hunters. Hunters harvested 6,957 birds compared to 3,558 birds in 2004 (Table 12). Birds per hunter day also decrease from 0.8 in 2004 to 1.0 in 2005.

Management Implications

Management of these populations will be incidental to other upland game bird species. The CRP program has had a positive effect on habitat suitability and presumably gray partridge populations. The telephone harvest data and incidental reports suggest a stable or increasing population over the past decade.

Wild Turkey

Abstract

Six controlled hunts with a total of 120 permits resulted in an estimated 2005 spring harvest of 32 turkeys. Hunters harvested an estimated 157 turkeys during the general spring season, and 201 birds harvested in the fall general hunt, for a total of 358 birds. Hunter success varies annually. No ground surveys were conducted.

Population Surveys

Winter distribution surveys were conducted along the Snake River during the winters of 1987-1988, 1988-1989, and 1992-1993. These surveys indicated that good quality turkey habitat was limited and that populations had not continued to grow at rates documented earlier following the initial introduction. Comments from local landowners during the surveys and declining hunter success rates indicated that a decrease in total population size probably occurred after 1984, with little or no recovery to date. No surveys were conducted in that area during 2004. Even under good snow conditions, surveys provide limited useful data.

Incidental reports indicate increasing numbers and expanded range of turkeys in Franklin and Bannock counties, due in part to unauthorized releases of turkeys of unknown origin. Turkeys have been sighted in parts of Units 70, 73, 74, 75, and 78, in addition to the release areas in Unit 77.

Harvest Characteristics

Following introductions of wild turkeys in Unit 77 from South Dakota, 3 consecutive spring hunts with 5 permits each were initiated in Franklin County in 1995. In 1999, permits were increased to 20 and the hunt area was expanded to include all of Units 73, 74, 75, and 77. In 2000, permits were increased to 30 for each hunt, and a general fall either-sex hunt was initiated. The permit level was increased to 50 per hunt in 2002. In 2004, 3 controlled spring hunts with 5 permits each were added in Unit 71.

The 2005 spring harvest, as estimated by the telephone harvest survey, showed a total of 189 birds taken in the region for both general and controlled spring hunts (Table 13). The fall general harvest was estimated at 201 birds taken by 588 hunters.

Trapping and Translocation

Wild turkeys have been transplanted into 3 general areas in Southeast Region during the last 2 decades; the Snake River bottoms upstream from American Falls Reservoir, along the Bear River in Franklin County, and in Unit 71 southeast of Pocatello.

During winter 2003, 42 turkeys were released in Unit 69 along the Snake river near Firth (Table 14). No turkeys were released in Southeast Region in 2004 or 2005.

Management Implications

The telephone survey of hunters and incidental field reports provide the data on populations in Southeast Region. To obtain additional information, increased emphasis has been placed on landowner input and sportsmen contacts.

Mourning Dove

Population Surveys

Wing barrels provide only a limited amount of data on mourning doves. Sample sizes are generally too small for analysis.

Call-counts are conducted on 3 established routes in Southeast Region in conjunction with the USFWS (Table 15). Routes are located in Oneida, Caribou, and Bear Lake counties. Results from mourning dove call-count routes are reported directly to USFWS.

Harvest Characteristics

Harvest information on mourning doves is collected via the USFWS harvest survey. No regional telephone harvest survey has been conducted since 1995.

Trapping and Banding

Southeast Region has participated in a statewide effort to trap and band mourning doves since 2003 (Table 16). In 2003, 80 doves were banded at 1 site. All doves received a standard leg band on the right leg, and for all odd-numbered bands, a gold band was placed on the opposite leg. In 2004, a total of 139 doves were banded at 2 sites. All doves received a standard leg band; hatch-year doves also received a reward band on the opposite leg. In 2005, 150 doves were banded at 2 sites, and all doves received a standard leg band.

Management Implications

Management decisions rely heavily on population and harvest statistics collected nationwide by USFWS.

Rabbits and Hares

Population Surveys

No population surveys were conducted in 2005.

Harvest Characteristics

Sample size tends to be small and estimates of participation and harvest are widely variable. A regional telephone survey was conducted during 2005. Cottontail rabbit harvest decreased from 5,509 animals in 2004 to 2,821 animals in 2005 (Table 17), and hunter participation decreased from 897 to 472.

Management Implications

In the past, limited data on rabbits and hares have been collected in Southeast Region. It is unlikely that this situation will change; however, continued efforts will be made to consider the habitat requirements of rabbits and hares in land-use management.

American Crow

The American crow will continue to be a species with no active management.

Table 1. Pheasant population characteristics and production, Southeast Region, 1984-1999.

		Brood routes[a]						
							Brood size	
Year	Winter sex ratio[b]	*n*	Routes (miles counted)	Birds per mile	Percent unsuccessful females	Juv:100 adult females	*n*	Average
1984	2.5	2,388					7	5.7
1985	3.8	453						
1986	4.0	436					12	5.2
1987	1.4	81						
1988								
1989								
1990	1.9	264	10 (200)	0.04	50	650	7	3.7
1991			10 (200)	0.09	83	180	2	5.5
1992			10 (200)	0.28	55	400	5	8.8
1993	1.5	10	10 (200)	0.01	0	500	1	5.0
1994	1.5	10	10 (200)	0.01	0	0	0	0.0
1995			8 (160)	0.06	0	500	2	5.0
1996			10 (200)	0.11	0	566	3	5.7
1997								
1998								
1999					50	250	2	5.0

[a] Brood routes have not been conducted since 1999 due to low numbers of birds seen.
[b] Hens per cock.

Table 2. Estimated pheasant harvest, Southeast Region, 1985-present.

	Check station[a]				Telephone survey[b]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds	Birds per hunter day
1985	897	350	0.4	9.5	7,169	18,293	0.5
1986	495	107	0.2	17.0	5,043	8,133	0.5
1987	480	161	0.3	10.8	3,319	9,089	0.6
1988	276	87	0.3	11.7	3,561	11,532	0.6
1989	456	243	0.5	7.9	2,290	6,688	0.7
1990	222	141	0.6	6.2	3,485	12,526	0.6
1991	287	149	0.5	7.5	3,525	15,839	0.8
1992	263	188	0.7	4.9	4,520	20,368	1.0
1993	232	76	0.3	11.6	2,628	11,967	0.6
1994	232	91	0.4	8.6	2,884	10,245	0.7
1995	240	107	0.4	8.1	2,092	9,402	0.6
1996	308	177	0.6	6.1			
1997	282	102	0.4	9.8			
1998	300	162	0.5	7.9			
1999	284	176	0.6	5.8			
2000	250	137	0.6	7.1			
2001	290	147	0.5	5.9	4,201	8,342	0.5
2002	233	116	0.5	6.7	2,536	5,183	0.3
2003	236	131	0.6	6.7	4,263	13,404	0.7
2004	239	113	0.5	7.9	4,052	12,222	0.6
2005	199	193	1.0	3.4	3,965	14,887	0.7
10-year average	262	145	0.6	6.7	3,803	10,808	0.6

[a] Check stations were operated on opening weekend only at American Falls and Tilden Bridge.
[b] Telephone survey data at the regional level were not collected from 1996-2000.

Table 3. Forest grouse production based on wing collection, Southeast Region, 1985-present.

	Blue grouse			Ruffed grouse	
Year	*n*	Juv:100 adult females	Juv:100 adults	*n*	Juv:100 adults
1985	15			215	
1986	31		182	242	235
1987	74		87	505	158
1988	67	291	156	204	152
1989	79		243	186	110
1990	60		155	170	128
1991	92	268	93	119	358
1992	157	368	142	216	65
1993	45	520	137	29	93
1994	64	717	205	340	227
1995	52		117	97	64
1996	157	915	313	461	271
1997	36		227	162	195
1998	64			238	170
1999	86		129	245	175
2000	151		184	537	220
2001	229		97	760	188
2002	67		200	265	225
2003	136		115	863	113
2004	78		66	277	177
2005	30		100	112	229
10-year avg.	103		159	392	196

Table 4. Estimated forest grouse harvest, Southeast Region, 2001-present.

Year	Hunters	Birds harvested	Birds per hunter	Birds per hunter day
2001	4,646	19,783	4.3	0.9
2002	2,902	8,810	3.0	0.7
2003	5,201	29,479	5.7	1.2
2004	4,127	15,380	3.7	0.6
2005	2,758	14,118	3.3	0.6
3-year avg.	4,028	19,659	4.2	0.8

Table 5. Maximum number of male greater sage-grouse counted on lek routes, Southeast Region, 1985-present.

	Bingham, Power, and Oneida counties					
Year	Herriott Lake	Jugalard Lake	Rock Lake	Mosby well #2	Curlew route[a]	Rockland route[b]
1985	31	28	48	0		
1986	19	55	66	0		
1987	78	96	118	3		
1988	71	112	92	0		
1989	47	69	68			
1990	57	88	93			
1991	41	72	60			
1992						
1993	18	24	39			
1994						
1995	41	0	49	0		
1996	5	0	49		16	13
1997	0	0	23	0	22	6
1998	15	0	17	0	11	17
1999	8	0	12	0	30	59
2000	45	0	8	0	22	99
2001	46	0	6	0	13	54
2002	25	0	5	0	6	63
2003	54	0	47	0	13	94
2004	40	0	39	0	16	147
2005	30	0	49	0	14	88
	Bear Lake and Caribou counties					
	Bloomington Bottoms	Bloomington Mine	Sheep Creek	Trail Creek	Slug Creek #1	Slug Creek #2
1985				24	12	
1986				31	15	
1987				38	15	
1988				24	11	
1989				27	8	
1990				32	8	10
1991				22	7	26
1992				28	8	24
1993				20	8	5
1994				13	6	10
1995				8	1	0
1996				6	0	0
1997				6	2	3
1998				12	3	4
1999	67	29		8	4	2
2000	15	27	45	10	0	0
2001	10	23	63	15	0	0
2002	8	15	38	15	0	0
2003	14	0	40			
2004			69			
2005	31		77			

Table 5. Continued.

	Butte and Blaine counties					
Year	Route #1[c]	Route #2[d]	Route #3[e]	Route #4[f]	Route #5[g]	Fingers Butte[h]
1988	137	129	166	145	246	
1989	61	52	75	93	92	
1990	92	54	96	99	79	
1991	51	31	84	103	137	
1992	47	11	62	41	63	
1993	31	6	30	12	42	
1994	20	29	53	8	55	
1995	61	10	47	11	54	
1996	54	13	71	4	22	
1997	54	14	67	2	19	
1998	79	15	62	1	19	73
1999	107		20		15	59
2000	149		38		58	158
2001	126		53		62	193
2002	148		67		68	142
2003	141		98		146	229
2004	114		84		124	225
2005	151		107		146	193

[a] South 13, North 13, Baker, Little Rock Spring, Ketchum, Huffman Springs, West Huffman.
[b] Marble, Exchange, Smith/Pett, South Funk, North Funk, East Jacobson, West Jacobson, North Huffman, West Strong.
[c] Frenchman's, Detmer's Dugout, Watertank, Quaking Aspen Airstrip, Detmer's, West Big Lake, Big Lake.
[d] East Big Lake, McCarty, Big Lake, Dugout, Rocky Lake.
[e] Sunset Lake, Ryegrass, Prairie, South Crossroads, Crossroads, South Big Lake.
[f] Reynolds, Lava Bluff, Osborne, Pitfall, Wakkinen, Firebomb, Turnaround, Weather Station.
[g] Rattlesnake, Cox's Well, South Cox's Well, East Cox's Well, Silvertank, Antelope Lake, Houghland's Well, South Antelope Lake, Hill #1, Hill #2.
[h] Six Mile, Wildhorse Butte, Cir. Water Tank, 3 Red Tanks, Pratt Lake, Pratt Lake S., Coyote Waterhole, Smith Trough #2, Finger's Well Res., Smith Round Tank.

Table 6. Greater sage-grouse production based on wing collections, Southeast Region, 1985-present.

Year	*n*	Juv:100 females[a]	Juv:100 adults[b]	*n*	Percent unsuccessful females[a]
Power/Bingham (Big Desert) unit[c]					
1985	852	344	224	171	60
1986		302	190		49
1987		200	125		41
1988	818	108	77	331	
1989		230	149		
1990	378	267	164	88	6
1991		91	62		78
1992	127	84	57	55	84
1993	77	162	103	19	47
1994	307	291	198	60	80
1995	240	85	56	109	60
2002	96	431		16	62
2003	141	104	64	81	40
2004	34	317	127	18	83
2005	143	372	186	72	60
Holbrook (Curlew) unit[d]					
1985	90	575	329	12	
1986		154	216		37
1987		165	109		44
1988	78	152	95	25	
1989		277	161		
1990	77	183	133	24	
1991		186	130		86
1992	135	127	82	48	85
1993	60	138	94	8	63
1994	112	380	211	14	64
1995	20	70	47	10	40
1996	28	229	133		100
1997	30	200	114		0
1998	22	143	83		71
1999	18	275	157		50
2000	25	67	47		58
2001	9	100	80	4	75
Bear Lake unit					
1987		216	146		15
1988	38	383	153	6	
1989		334	191		
1990	126	282	168	28	
1991		135	93		57
1992	105	177	110	31	74
1993	26	767	767	8	33

Table 6. Continued.

Year	*n*	Juv:100 females[a]	Juv:100 adults[b]	*n*	Percent unsuccessful females[a]
1994	35	244	169	5	80
1995	19	186	144	7	43
1996	18	1,400	350		100
1997	14	200	133		25
1998	8	133	100		33
1999	19	50	36		40
2000	9	133	80		100
2001	3				
2002	8		60	3	100
2003	0				
2004	26	300	136	10	80
2005	17	550	183	6	100
Southeast Region					
1985	942	360	232	183	60
1986	1,601	289	184		49
1987	480	199	125		42
1988	934	115	81	362	42
1989		235	151		60
1990	581	256	161	156	41
1991		98	70		72
1992	367	121	79	134	82
1993	163	190	126	30	53
1994	454	305	199	173	79
1995	279	90	60	126	58
1996	46	375	188		100
1997	51	186	104		14
1998	30	140	88		60
1999	37	114	76		43
2000	34	80	55		67
2001	12	175	140	4	75
2002	104	379	225	19	68
2003	144	98	62	56	39
2004	62	292	130	30	75
2005	160	385	186	78	63
10-year average	68	222	125	37	60

[a] Females = adults + yearlings.
[b] Adults = adults + yearlings.
[c] Big Desert harvest season closed from 1996-2001.
[d] Harvest closed in 2002.

Table 7. Estimated greater sage-grouse harvest, Southeast Region, 1985-present.

		Check station				Telephone survey[a]		
Year	Daily bag[b]	Hunters	Birds	Birds per hunter	Hours per bird	Hunters	Birds	Birds per hunter day
1985	3	274	113	0.4	11.3	1,550	4,630	1.0
1986	3 (2)	264	177	0.7	7.6	1,848	7,082	1.3
1987	3 (2)	341	450	1.3	3.4	2,002	6,076	1.3
1988	3 (2)	393	491	1.2	4.3	1,862	7,962	1.1
1989	3 (2)	402	283	0.7	7.1	1,922	4,118	0.7
1990	3	344	498	1.4	3.2	2,073	6,004	0.8
1991	3	314	153	0.5	9.7	2,063	3,743	0.6
1992	3	168	52	0.3	15.1	2,242	5,077	0.6
1993	3	112	13	0.1	40.7	3,123	4,332	0.4
1994	3	167	109	0.6	7.6	2,528	4,401	0.5
1995	3	122	35	0.3	15.5	1,462	2,559	0.5
2000	1					743	669	0.4
2001	1					551	489	0.3
2002	1	37	11	0.3	13.1	430	422	0.4
2003	1	31	23	0.7	3.6			
2004	1	35	10	0.3	7.0	342[c]	382	0.4
2005	1	59	42	0.7	3.3	429[c]	403	0.5
3-year average	1	42	25	0.6	4.6	386	393	0.5

[a] Telephone survey data at the regional level were not collected from 1996-1999. Telephone survey data for 2003 is not available.

[b] From 1986-1989, the bag limit for areas off the Big Desert were smaller (2) than for those on the Desert. From 1996-2001, the Big Desert was closed to harvest. The Curlew Grassland was closed to harvest in 2002.

[c] Used Zone 5 harvest data only, Southeast Region also includes portions of Zone 8, which is reported in statewide section and Upper Snake section.

Table 8. Sharp-tailed grouse production based on wing collections, Southeast Region, 1986-present.

Year	Juveniles:100 adults[a]	*n*
1986	97	130
1987	99	238
1988	76	147
1989	118	219
1990	69	210
1991	105	187
1992	96	382
1993	110	187
1994	173	289
1995	58	190
1996	126	224
1997	163	227
1998	130	379
1999	75	429
2000	59	399
2001	84	182
2002	118	155
2003	70	398
2004	39	194
2005	74	169
10-year average	94	276

[a] Includes data from Malad City area and Pocatello Creek.

Table 9. Maximum number of sharp-tailed grouse counted on lek routes in Oneida, Power, and Bannock counties, Southeast Region, 1995-present.

Year	Arbon route[a]	Curlew route[b]	Pocatello Valley route[c]	Rockland route[d]	Downey route[e]
1995	92	23	78	50	
1996	43	46	31	53	84
1997	36	57	46	24	68
1998		40	46		72
1999			108		102
2000			76		60
2001			64		42
2002			49		42
2003			96		34
2004			59		54
2005			86		48

[a] Symantha's, Ag, Howe, Cow, 1994.
[b] Duffin, Vanderhoff, Hill, Bowen, N-13.
[c] Thorpe, Davis, Jensen, N. Peterson, Peterson, Marble.
[d] No Name, Roy, Benson, Quiet, Daryl.
[e] 1B021, 1B026, 1B027, 1B028, 1B033, 1B036, 1B039

Table 10. Estimated sharp-tailed grouse harvest Greater Curlew area, Southeast Region, 2001-present.

	Greater Curlew area				
Year	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2001	656	1,337	1,706	2.0	0.8
2002	473	986	1,288	2.1	0.8
2003	836	2,122	2,203	2.5	1.0
2004	646	1,587	1,572	2.5	1.0
2005	779	1,593	1,607	2.0	1.0
3-year average	754	1,767	1,794	2.3	1.0
	Outside the Greater Curlew area				
2001	763	1,377	2,130	1.8	0.6
2002	702	1,215	1,771	1.7	0.7
2003	899	2,644	2,760	2.9	1.0
2004	742	1,825	2,178	2.5	0.8
2005	991	1,881	2,260	1.9	0.8
3-year average	877	2,117	2,399	2.4	0.9

Table 11. Estimated sharp-tailed grouse harvest, Southeast Region, 1984-present.

	Hunter report cards[a]				Telephone survey[b]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds	Birds per hunter day
1984					307	285	0.4
1985					219	456	1.0
1986					331	495	0.9
1987	117	157	1.3	2.9	64	2,118	2.0
1988	99	133	1.3	3.0	361	2,286	1.1
1989	144	166	1.2	3.1	573	1,448	0.8
1990	167	238	1.4	2.5	1,152	4,632	1.2
1991	162	198	1.2	3.2	1,127	4,864	1.1
1992	284	408	1.4	3.4	1,601	6,198	1.2
1993	158	184	1.2	3.4	2,721	5,071	0.5
1994					2,042	4,570	0.6
1995					1,706	3,899	0.6
2000					1,799	3,716	0.8
2001					1,419	2,714	0.7
2002					1,175	2,201	0.7
2003							
2004					1,388	3,412	0.9
2005					1,770	3,474	0.9
3-year average					1,579	3,443	0.9

[a] Hunter report cards were only collected from 1987-1993.
[b] Telephone survey data at the regional level were not collected from 1996-1999. Telephone survey data for 2003 is not available.

Table 12. Estimated gray and chukar harvest, Southeast Region, 1986-present.

	Gray partridge			Chukar		
Year[a]	Hunters	Birds	Birds per hunter day	Hunters	Birds	Birds per hunter day
1986	414	1,257	0.4	400	1,164	0.7
1987	445	933	0.5	139	243	1.9
1988	582	4,938	1.1	266	854	0.8
1989	388	933	1.1	374	366	0.5
1990	944	3,854	0.8	400	1,164	0.7
1991	1,200	8,622	1.4	294	822	0.8
1992	1,204	6,500	1.1	430	2,540	1.0
1993	1,946	6,308	0.7	835	2,010	0.6
1994	1,180	4,814	0.9	656	1,592	0.6
1995	1,076	3,737	0.7	568	1,442	0.5
2001	1,376	3,798	0.6	247	952	0.7
2002	984	2,293	0.3	230	193	0.3
2003	1,269	8,607	1.5	792	3,335	1.5
2004	1,223	3,558	0.8	498	224	0.2
2005	1,006	6,957	1.0	326	614	0.6
3-year avg.	1,166	6,374	1.1	539	1,391	0.8

[a] Telephone survey data at the regional level were not collected from 1996-2000.

Table 13. Estimated turkey harvest, Southeast Region, 1985-present.

Year Hunt	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
1985						
Controlled	2	20	15	3	35.3	106
1986						
Controlled	6	20	14	2	17.5	35
1987						
Controlled	9	45	45	11	12.0	132
1988						
Controlled	9	45	32	6	23.2	139
1989						
Controlled	9	45	39	5		
1990						
Controlled	5	30	20	6	25.7	154
1991						
Controlled	2	10	10	3	15.0	45
1992						
Controlled	2	10	10	4	10.0	40
1993						
Controlled	2	10	10	1	45.0	45
1994						
Controlled	2	20	20	6	12.0	72
1995						
Controlled	6	30	30	6	16.7	100
1996						
Controlled	6	30	30	15	6.7	100
1997						
Controlled	6	60	44	32	3.4	110
1998						
Controlled	8	175	154	86		
1999						
Controlled	8	205	178	116	5.0	581
2000						
Controlled	6	135	113	64	5.5	349
General			382	159	7.3	1,168
2001						
Controlled	6	135	133	67	6.6	445
General			493	190	6.7	1,276
2002						
Controlled[a]	6	195	168	69	8.8	605
General			623	165	14.5	2,389
2003						
Controlled	6	195	163	67	8.0	539
General			852	535	4.5	2,383

Table 13. Continued.

Year Hunt	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
2004						
Controlled	9	210	183	74	9.4	692
General			988	304	12.4	3,783
2005						
Controlled	6	120	103	32	16.0	510
General			2,071	358	18.8	6,732

[a] No data for Hunt 68A-3.

Table 14. Turkey translocation history, Southeast Region, 1982-present.

Year	Sub-species[a]	Release site	Birds released	New or supplemental release
1982	R	Snake River	36	N
1984	R	Snake River	28	N
1990	M	Snake River	14	S
1993	M	Bear River	20	N
1994	M	Snake River	64	S
	M	Bear River	32	S
1999	U	Deep Creek, Bear River	15	S
2000	U	Oneida Narrows	50	S
2001	U	Unit 71	136	N
2003	H	Snake River, Unit 69	42	S

[a] H = Hybrid, M = Merriam's, R = Rio Grande, U = Unknown.

Table 15. Mourning dove call-count survey results and estimated harvest, Southeast Region, 1984-present.

	Coo-count routes		Telephone survey[a]		
Year	Routes counted	Doves heard/mile	Hunters	Birds	Birds/ hunter day
1984	3	1.5	455	824	1.8
1985	2	0.4	452	1,358	0.7
1986	3	0.4	221	453	1.3
1987	2	0.6	292	1,030	1.0
1988	3	0.9	97	122	1.5
1989	2	1.0	266	708	1.4
1990	1	0.8	908	9,865	1.8
1991	2	0.8	397	1,733	1.9
1992	3	2.0	882	15,061	2.1
1993	3	0.7	2,628	25,326	2.2
1994	3	0.9	2,060	16,313	2.7
1995	3	0.6	1,848	15,150	2.1
1996	3	0.4			
1997	3	0.7			
1998	3	0.5			
1999	3	0.5			
2000	3	0.4			
2001	3	0.2			
2002	3	1.1			
2003	3	0.6			
2004	3	0.6			

[a] Telephone survey data at the regional level were not collected after 1995; harvest is reported directly to USFWS by hunters.

Table 16. Mourning doves banded in Southeast Region, 2003-present.

	Adult					
Year	Male	Female	Unknown	Hatch-year	Unknown	Total
2003	17	11	1	50	1	80
2004	54	45	7	33	0	139
2005	30	50	44	26	0	150
Total	101	106	52	109	1	369

Table 17. Estimated cottontail rabbit harvest, Southeast Region, 2001-present.

Year	Hunters	Harvest	Days	Rabbits/hunter day
2001	686	3,080	2,666	1.2
2002	29	146	58	2.5
2003	590	7,190	7,819	0.9
2004	897	5,509	4,803	1.1
2005	472	2,821	1,369	2.1
3-year avg.	653	5,173	4,664	1.4

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Upland Game Surveys and Inventories
PROJECT:	W-170-R-30		
SUBPROJECT:	6	**STUDY NAME:**	Upland Game and Waterfowl Population Status and Trends
STUDY:	II		
JOB:	1		

PERIOD COVERED: April 1, 2005 to March 31, 2006

UPPER SNAKE REGION

Climatic Conditions

The 2005-2006 winter was characterized with periods of mild temperatures interspersed with periods of colder temperatures. Precipitation of both rain and snow was above normal. Spring weather conditions during 2005 were warm. Precipitation was below average during March, followed by a period of weekly showers at lower elevations and wet snows in forested areas through May. The cool, wet period probably reduced forest grouse chick survival, but provided relatively good brooding conditions for other upland birds. The rest of summer and fall generally provided good foraging conditions for upland game species.

Trapping and Translocation

No trapping or translocation took place in Upper Snake Region for pheasant (*Phanianus colchicus*), forest grouse, sage-grouse (*Centrocercus urophasianus*), sharp-tailed grouse (*Tympanuchus phasianellus columbianus*), chukar (*Alectoris chukar*), gray partridge (*Perdix perdix*), or turkey (*Melagris gallopavo*) during the reporting period.

Pheasant

Population Surveys

No population survey was conducted during this reporting period; however, general observations suggest pheasant populations remain extremely low in the region.

Harvest Characteristics

No check stations were operated during the 2005 pheasant season (Table 1).

A telephone survey for 2005 upland game estimated that 1,258 hunters harvested 5,790 pheasants in 2005 (Table 1). This is a 14% increase in hunters and 121% increase in harvest from the 2004 estimate. The estimated harvest was 1.07 pheasant per hunter day.

A special youth hunt area of 182 acres was identified on the south agricultural field at Market Lake WMA for the 2004 pheasant season. This area was maintained for youth hunting again for the 2005 season. The area was set aside to encourage youth hunting opportunity in Upper Snake Region. Adult pheasant hunters were requested not to hunt in the youth hunt area unless they were accompanied by a youth ≤17 years-of-age. Although no data on use was collected, general observations and unscheduled contact with hunters suggested the area received heavy use by youth pheasant hunters and was well received by the hunting public.

Habitat Conditions

Pheasant are distributed at low densities on and around agricultural land in Upper Snake Region. Pheasant habitat is marginal due to periodic severe winters and agricultural practices inconsistent with quality nesting and brood habitat. There are patches of habitat supporting a few pheasant scattered throughout the area, including Howe, Monteview, Mud Lake WMA, Market Lake WMA, and the agricultural lands associated with the Snake River Plain. Habitat is primarily restricted to fence rows, irrigation ditches, riparian areas, and waste areas. A common practice is to burn these patches of cover in spring prior to nest initiation. Hence, available nesting cover occurs as widely dispersed small patches of residual cover, hay fields, and fall-seeded small grain.

Fourteen acres of corn food plots were planted in Bonneville and Jefferson counties for pheasant. The Department provided the corn planter for these food plots with other costs being borne by either the landowner or cost-shared by the landowner and Pheasants Forever chapter.

In Unit 50, 3 food plots totaling 6.5 acres of wheat-clover mix were planted for upland game and waterfowl on private property along the Big Lost River.

Habitat projects were done on WMAs in the region for pheasant. At Market Lake, a 6-acre wheat food plot and 5-acre corn food plot were planted on the north agriculture fields to benefit upland birds and waterfowl, and an additional 5 acres of fallow land on the north agricultural fields was seeded to permanent cover. Additionally, 3 separate food plots totaling 5 acres was seeded to wheat, corn, and millet and left standing for upland birds and waterfowl on the south agricultural fields. Twenty-nine acres of wheat and 14 acres of corn were also share-cropped and left standing for upland birds and waterfowl.

At Deer Parks Wildlife Mitigation Unit, 317 acres were share-cropped with a local farmer. Ninety-eight acres of the share-cropped wheat and 22 acres of the share-cropped corn were left standing for upland game and waterfowl. The share cropper also planted 4 grain food plots totaling 57 acres of standing oats and wheat for upland game and waterfowl.

On Cartier Slough WMA, 0.2 acre was planted to shrubs for pheasant and gray partridge habitat.

Release of Pen-reared Pheasants

Adult roosters were purchased from a contractor and released on Department lands in Upper Snake Region. A total of 900 pheasant cocks were released at Mud Lake WMA, 900 at Market

Lake WMA, and 600 at Cartier WMA during the 2005 hunting season. Two releases were made weekly on each WMA throughout the pheasant hunting season. An additional 50 pheasant cocks were released at Market Lake WMA for the special youth pheasant hunt on 1-2 October 2005. Adult hunters hunting on WMAs where game-farm pheasants were released were again required to obtain a WMA pheasant permit in 2005. A sample of WMA pheasant permit buyers estimates that 199 adult and 13 junior-mentored hunters hunted game-farm pheasants on Mud Lake WMA in 2005; the adults harvested an estimated 341 pheasants. Two hundred eighty-seven adult and 86 junior-mentored hunters hunted on Market Lake WMA in 2005; the adults harvested an estimated 746 pheasants. One hundred forty-two adult and 35 junior-mentored hunters hunted on Cartier Slough WMA in 2005; the adults harvested an estimated 309 pheasants. There were no harvest estimates for junior-mentored hunters.

Management Implications

There seems to be little the Department can do on a scale large enough to make an observable difference in wild pheasant numbers given present agricultural economics, practices, and technology. Pheasant habitat quantity and quality in the region has diminished since the 1950s and 1960s due to changing agriculture practices. Loss of habitat combined with periodic severe winters and low recruitment restrict pheasant numbers in Upper Snake Region. Although some winter habitat improvement projects have been implemented in the region, little has been done to improve nesting habitat.

Forest Grouse

Population Surveys

Forest grouse populations are not sampled in Upper Snake Region because populations are widely distributed in forested habitat, making it difficult to efficiently obtain adequate sample sizes from enough areas to be meaningful.

Wings were examined to estimate forest grouse production; however, sample sizes are too small to be of value. Thirty-three ruffed grouse (*Bonasa umbellus*) wings and 12 blue grouse (*Dendragapus obscurus*) wings were collected at check stations, wing barrels, or turned in to the Department during the 2006 season. Examination of these gave a young:adult ratio of 371:100 ruffed grouse and 71:100 blue grouse.

Harvest Characteristics

Harvest information has been collected from the statewide survey and from check stations operated during opening weekend of sage-grouse season (Table 2). Forest grouse checked at check stations are taken in conjunction with sage-grouse hunting. Significant reductions in sage-grouse hunting opportunity occurred beginning in 1996. Consequently, 2005 hunter numbers were again only a fraction of historical levels. Three blue grouse were checked at sage-grouse check stations in 2005. Check station data have been used to calculate an index of forest grouse per 100 hunters checked on opening weekend of sage-grouse season. Number of forest grouse in the bag of sage-grouse hunters provides a rough index to their abundance in or near areas

inhabited by sage-grouse. Number of forest grouse per 100 hunters in 2005 was too low to estimate (Table 2).

The statewide telephone survey in 2005 estimated 2,538 hunters harvested 7,219 forest grouse in the region. This is a 43% decrease in hunters and 52% decrease in harvest from 2004 estimates. The estimated forest grouse harvest per day in 2005 was 0.63.

Management Implications

The forest grouse hunter participation and harvest estimates have fluctuated widely in the past 10 years. The number of birds checked at check stations on opening day of sage-grouse season has varied between 3 and 60 with a mean of 29. Telephone survey estimates also vary widely with an estimated harvest of 23,213 forest grouse harvested in the region in 2001 to 7,219 harvested in 2005. General hunter comments indicated most hunters saw fewer forest grouse, especially blue grouse, in 2005 than in recent years

It has been suggested that forest grouse harvest is primarily incidental to other hunting activity, mainly big game. If this is true, harvest, and to a lesser extent hunter participation, is dependent upon annual production in the areas that hunters are hunting other species, especially big game. This may explain the large fluctuation in harvest over time. If this hypothesis is true, harvest of forest grouse is somewhat self-limiting because hunters only harvest forest grouse incidental to other hunting activity and, therefore, seasons can be fairly liberal.

Sage-grouse

Population Surveys

Sage-grouse are distributed throughout Upper Snake Region in sagebrush-steppe habitat. Fifteen lek routes were counted in 2005. Three routes (Lidy, Market Lake, and lower Big Lost) were discontinued in 2004 to reduce workloads and place more emphasis of obtaining better quality data for routes counted. The 15 routes now counted provide a good distribution of routes in the different sagebrush types, precipitation regimes, and elevations across the region. The 15 routes were compared with 2004 and of these 15 routes, 4 had fewer peak male counts in 2005 than in 2004, and the peak number of males counted on 2 routes was lower than the 10-year average for the routes. For all routes counted, the average peak number of males counted per route in 2005 was above 2004 and also above the 10-year average (Table 3).

The juvenile to adult female ratio is determined from hunter-harvested sage-grouse wings. These data indicate above average production in 2005 (Table 4); however, sample size since 1996 has been inadequate to get a good estimate of production.

Harvest Characteristics

Three check stations monitor harvest characteristics. Check station data since 1995 reflects the reduced bag/possession limits with fewer hunters checked and fewer grouse harvested on opening weekend (Table 5). Birds per hunter day increased a little in 2005 relative to 2004 while

hours per bird harvested decreased a little in 2005 relative to 2004, indicating better hunting conditions in 2005 compared to 2004. Hunter comments at check stations are consistent with the data with some hunters reporting seeing large flocks of sage-grouse or seeing more grouse than in recent years.

Starting in 2000, sage-grouse and/or sharp-tailed grouse hunters were required to purchase a validation on their hunting license. A statewide survey conducted for the 2005 season estimated 3,272 hunters harvested 3,658 sage-grouse. This is a 46% increase in hunters and 62% increase in harvest from 2004 estimates (Table 5). Estimates from the survey since 2000 are not comparable with the telephone surveys done before 1996.

In 2005, the Department surveyed sage-grouse hunters statewide to determine hunter participation and harvest throughout the season relative to opening weekend. For the region, including all of the Big Desert area, a few more hunters (54%) hunted opening weekend than hunted after opening weekend (46%). Forty-six percent of the sage-grouse harvest occurred on opening weekend compared to 54% after opening weekend. Of the days hunters spent hunting sage-grouse, 43% occurred on opening weekend compared to 57% after opening weekend. This differs from the traditional perception that most of the sage-grouse hunting and harvest occurs on opening weekend of sage-grouse season. These data suggest that only about half of the hunting effort and harvest occurs on opening weekend.

The Big Lost and Little Lost river drainages had a 23-day season with a 2-grouse bag limit and 4-grouse possession limit while the rest of the region had a 7-day season with a 1-grouse bag limit and 2-grouse possession limit. There was little difference between these 2 areas in percent of hunting effort opening weekend relative to the rest of the season. In the more liberal area, 51% hunted opening weekend and 49% hunted after opening weekend while in the more restrictive areas, 45% hunted opening weekend and 55% hunted after opening weekend. There was a difference, however, in the percentage of sage-grouse harvested and percentage of days spent hunting opening weekend between the 2 areas. In the liberal area, 36% of the sage-grouse were harvested opening weekend and 64% were harvested after opening weekend while in the more liberal areas, 48% of the sage-grouse were harvested on opening weekend and 52% after opening weekend. Also, 36% of the days spent hunting sage-grouse occurred on opening weekend and 64% occurred after opening weekend in the more restrictive areas while 44% of the days were spent hunting on opening weekend and 56% after opening weekend in the more liberal areas. These differences are most likely the result of most of the hunters hunting on weekends and in the more restrictive areas, hunters could only hunt 1 weekend, which was the opening weekend of the season.

Habitat Conditions

Sage-grouse habitat continues to be lost to agriculture, wildfire, and prescribed fire throughout the region. Reduced numbers of sage-grouse resulting from these habitat losses are expected to occur for the next several years. There were no major wildfires in the region during 2005.

Management Studies

A research project was initiated in August 1997 to identify and evaluate causes of juvenile sage-grouse mortality. Information gained from this research will be published in a separate research completion report.

Management Implications

Sage-grouse populations fluctuate from year to year relative to weather conditions and, over longer time, from habitat alterations. Harvest is dependent upon hunting conditions on opening weekend, bag and possession limits, season length, and grouse populations.

The BLM, USFS, U.S. Sheep Experiment Station, and Idaho National Laboratory have assisted the Department in conducting lek surveys in recent years. Lek route monitoring trends show long-term population declines throughout the region; however, these declines seem to be reversing in the past few years. Both quantity and quality of habitat have declined due to agriculture encroachment, sagebrush manipulation, loss of moist areas, and livestock grazing. Regional personnel are actively involved with other agencies and private landowners in planning sagebrush manipulation projects to minimize impacts to sage-grouse habitat. Continued surveillance and cooperation with other agencies and private landowners needs to be done to reduce sagebrush conversion and fragmentation and to improve grazing management.

A local working group of federal and state agency personnel, sportsmen, ranchers, and landowners from Upper Snake Region was formed in November 1998 to address sage-grouse declines. Initially, 50-60 members met on a bi-monthly or monthly basis, but this number has dwindled to 15-20 over the past 5 years. During the past year, the members reviewed and commented on the statewide sage-grouse conservation plan which will legitimize the local plan. Strategies identified in the Upper Snake plan to increase sage-grouse populations in Upper Snake Region have not been implemented at this time because of a lack of direction from the statewide plan and funding limitations.

Sharp-tailed Grouse

Population Surveys

Six sharp-tailed grouse lek routes are surveyed in Upper Snake Region (Table 6). Three of these are routes started in 2004 and 1 route was started in 1999. The number of grouse attending leks in 2005 increased or stayed the same for all routes relative to 2004. The Sand Creek and Grassy routes were at or above the 10-year average while the Pine Creek route was well above the 7-year average (Table 6). The 3 new routes, 1 on the Teton River in Unit 65 and 2 in Unit 69, will continue to be counted which will provide an opportunity to monitor breeding sharp-tailed grouse populations in these areas.

Production

Wings were collected at wing barrels from the Sand Creek and Tex Creek areas throughout the sharptail season. Analysis of 206 wings collected from wing barrels at Tex Creek and Sand Creek WMAs indicated 73 juveniles:100 adults for 2005. This was 50% below the 10-year average (Table 7). The juvenile:adult ratio was slightly better from Tex Creek (74:100) than Sand Creek 68:100.

Harvest Characteristics

Trends in harvest of sharp-tailed grouse were historically monitored through the Red Road check station on opening weekend of the sage- and sharp-tailed grouse seasons (Table 8). However, since 1998, the sharptail season has opened 2 weeks later than the sage-grouse season. Consequently, no check station harvest data was obtained on sharp-tailed grouse in 1998 or 1999. A check station was operated on the Sand Creek Road on opening day to obtain some harvest information in 2000, 2001, and 2002. Check station hunter numbers prior to 2000 also include sage-grouse hunters, but only sharp-tailed grouse hunters are included in the 2000, 2001, and 2002 data. No check station data have been collected since 2002.

Starting in 2000, sage-grouse and/or sharp-tailed grouse hunters were required to purchase a validation on their hunting license. A statewide survey conducted for the 2005 season estimated 1,112 hunters harvested 1,763 sharp-tailed grouse. This is an 18% increase in hunters and 23% increase in harvest from the 2004 estimates (Table 8). These estimates are not comparable with the telephone surveys done before 1996.

As with sage-grouse harvest, the Department asked hunters if they only hunted on opening weekend or if they also hunted after opening weekend. For the whole region, 35% of hunters hunted only on opening weekend compared to 65% hunting after opening weekend. Twenty-one percent of the harvest occurred on opening weekend compared with 79% after opening weekend. Twenty-one percent of the days spent hunting sharp-tailed grouse occurred on opening weekend compared with 80% after opening weekend. There was little difference between the Tex Creek and Sand Creek areas relative to the percentage of harvest and number of days spent hunting. However, there was a difference between the Tex Creek and Sand Creek areas in percentage of hunters hunting opening weekend versus after opening weekend. On the Tex Creek area, fewer hunters (32%) hunted opening weekend and more hunters (68%) hunted after opening weekend while on the Sand Creek area, a greater percentage of hunters hunted on opening weekend (65%) than hunted after opening weekend (40%).

Habitat Conditions

Lands enrolled in the CRP program in Bonneville, Bingham, Teton, Madison, and Fremont counties provide some benefits to sharp-tailed grouse. Increased distribution of sharp-tailed grouse is being documented during the lek season, and they are observed wintering in areas enrolled in CRP, especially in Fremont, Madison, and Teton counties. The Department worked with NRCS and a private landowner in Teton County to establish 686 acres of CRP for sharp-tailed grouse habitat.

During this reporting period, 100 acres of grain was left standing on Tex Creek WMA as a cover crop for new seeded grass-forb mix. Thirty-five thousand shrubs were also planted on Tex Creek WMA primarily for mule deer habitat, but this habitat improvement project will also benefit sharp-tailed grouse. The Department also cooperated with NRCS to convert 340 acres of smooth brome (*Bromus inermis*) CRP land to a grass-forb mix for mule deer and sharp-tailed grouse on private lands owned by Harold Winther and Dale Rockwood in the Bulls Fork and Grays Lake Outlet areas near Tex Creek WMA.

Lek Surveys

No surveys to locate new sharp-tailed grouse lek locations or to monitor known leks not on lek routes were conducted in 2005.

Management Implications

Sharp-tailed grouse production and/or recruitment were very low from 1992-1994, 2000 and 2001 and again since 2002. Unfavorable weather conditions may be responsible. Drought conditions prevailed throughout the spring and summer in 1992 and 2003, while 1993 and 1994 were abnormally cool and wet. Production, based on wing analysis, improved markedly from 1995-1998, but has been low again since then. These fluctuations may also be the result of small sample size. Birds attending leks increased slightly in 2005 compared to 2004. The new route in the Teton Valley and the 2 new routes in Unit 69 will provide an opportunity to monitor sharp-tailed grouse breeding populations in these areas.

Chukar

Population Surveys

No production data were collected during this reporting period.

Harvest Characteristics

Statewide survey estimates for the region in 2005 indicate a 47% increase in hunters and a 64% increase in chukar harvest in 2005 relative to 2004 (Table 9). The estimated number of chukar harvested per hunter day in 2005 was 0.88.

Management Implications

Chukar are not numerous in Upper Snake Region. Habitat is limited by snow depth, duration of snow cover, and potentially water availability. Chukar have been more numerous and widely distributed in the past, but severe winters have reduced populations and restricted distribution to the most favorable sites. Remnant populations occur in the lower Big Lost, lower Little Lost, and lower Birch Creek valleys. These populations are well established but are susceptible to periodic weather-related declines.

Although operated primarily to check sage-grouse hunters, opening weekend check stations also provide minimal trend information on chukar harvest. No chukar were checked in 2005. In mid-September, birds are often well dispersed and difficult to find. However, the statewide survey indicates chukar harvest has increased dramatically in the region over the past 5 years.

Gray Partridge

Population Surveys

No population trend data were collected for this reporting period.

Harvest Characteristics

Harvest information is gathered from check stations operated at Sage Junction, Highway 20, and Red Road during opening weekend of sage-grouse season and through a statewide combined mail-out and telephone survey. Twenty-two gray partridge were checked in Upper Snake Region in 2005 (Table 10). It should be noted that there has been a reduction in hunter participation since 1996 as a result of restricted sage-grouse hunting opportunity in the region. Statewide survey estimates for 2005 indicate a 40% increase in the number of hunters and a 156% increase in gray partridge harvested in 2005 relative to 2004 (Table 10). The estimated gray partridge harvest per hunter day was 0.95.

Habitat Conditions

Habitat improvement projects sponsored through the HIP program and Pheasants Forever indirectly benefit gray partridge. Cost-share seeding of grass/forb mixtures provided by the CRP program also benefits gray partridge in some locations.

Gray partridge are distributed at lower elevations throughout Upper Snake Region, but densities are relatively low. In drier years, the birds concentrate around moist areas and hay fields but have a more general distribution in years with normal precipitation. Nesting occurs in and around hay or grain fields. Although gray partridge are capable of surviving winter conditions better than chukar, severe winters cause increased mortality.

Management Implications

Although gray partridge density in the region tends to be low relative to other regions throughout the state, if we get 2 or more years of good production, numbers increase dramatically. This appears to have been the case over the past couple of years resulting in an estimated harvest of 3,271 gray partridge in 2005 which is the highest harvest estimate over the last 5 years.

Wild Turkey

Population Surveys

There were no population surveys conducted during this reporting period; however, turkeys have been observed along the South Fork Snake River and adjacent tributaries and habitat, the lower Henrys Fork, the lower Falls River, the Snake River upstream of Roberts, and along the Big Lost river south of Mackay.

Harvest Characteristics

Two hundred permits were offered for Controlled Hunt Area 50, which included the entire region, in spring 2005. The harvest estimate was 70 turkeys (Table 11).

Habitat Conditions

Turkey habitat in the region may be marginal for winter foods, but no studies have been done to evaluate habitat quality.

Trapping and Translocation

No turkeys were released in the region during this reporting period (Table 12).

Fifty-nine Merriam's turkeys (*M. g. merriami*) were released on the Big Lost River below Mackay in February and March 1999. The first hunt on this population was offered in spring 2002.

A total of 670 Merriam's turkeys have been released in Units 63A, 67, and 69 since the 2000-2001 winter. Several of the Unit 63A releases were in the same general vicinity as the turkeys released during 1984 and 1988. The previous transplants were numerically small (12-16) and involved the Rio Grande (*M. g. intermedia*) subspecies. The previous transplants were unsuccessful in establishing a population and some evidence indicated that inadequate winter food was the primary limiting factor.

Management Implications

Turkey hunter success in the region remains low. The estimated 2005 turkey harvest was 70 compared to 39 in 2004 and a reduction from 30 to 13 days required to harvest a turkey. This could indicate increasing turkey numbers, an increase in turkey hunters familiar with turkey hunting, or improved hunting conditions.

The region received 1 turkey depredation complaint in the Archer area again during this reporting period from a landowner with about 300 turkeys feeding with his cattle and roosting over his calving pens. The landowner suffered scours in his calves and thought the turkeys may have contributed to the onset and spread of this disease. Consultation with the Department's veterinarian and veterinarians with the National Wild Turkey Federation did not satisfy the

landowner's concern on this issue. The turkeys also get into the cattle feeders and waste the feed. The region met with the landowner several times and discussed opening a depredation hunt or providing the landowner kill permits, but then the turkeys started dispersing and the landowner decided not to ask for those.

Mourning Dove

Population Characteristics

Data from mourning dove call-count routes are reported directly to USFWS.

Harvest Characteristics

One dove was checked at check stations on opening weekend of the 2005 sage-grouse season. Harvest surveys have not been conducted since 1996. Hunters report harvest directly to USFWS.

Trapping and Banding

Upper Snake Region has participated in a statewide effort to trap and band mourning doves (*Zenaida macroura*) since 2003 (Table 13). In 2003, 20 doves were banded at 2 sites. All doves received a standard leg band on the right leg, and for all odd-numbered bands, a gold band was placed on the opposite leg. In 2004, a total of 226 doves were banded at 2 sites. All doves received a standard leg band; hatch-year doves also received a reward band on the opposite leg. In 2005, 204 doves were banded at 3 sites, and all doves received a standard leg band.

Management Implications

The mourning dove is one of the most common nesting game birds in Upper Snake Region. However, in many years, the majority of birds have left the area prior to the season opening on 1 September or shortly thereafter.

Management efforts are aimed at minimizing sportsmen/landowner conflicts and improving habitat indirectly through HIP windbreaks, guzzlers, and CRP plantings. We will continue to take advantage of harvest opportunities as allowed by federal regulations.

Rabbits and Hares

Starting in 2002, the pygmy rabbit (*Brachylagus idahoensis*) season closed, leaving only mountain cottontail rabbit (*Sylvilagus nuttallii*) and snowshoe hare (*Lepus americanus*) available to hunters.

Since 2002, the nongame program in the region has been encouraging Department personnel, federal and state land management agencies, and individuals pursuing outdoor activities to report observations of pygmy rabbits and active pygmy rabbit burrows. These reports, after being verified, are sent into the Department's Conservation Data Center.

Rabbit management is a low priority in Upper Snake Region. A statewide survey of rabbit hunters estimated 204 hunters harvested 1,111 cottontail rabbits in Upper Snake Region during 2005 (Table 14). Thirty-seven hunters also reported harvesting 92 snowshoe hare in the region in 2005 (Table 14). This represents a 72% decrease in hunters and a 69% decrease in rabbit harvest; a 66% decrease in snowshoe hare hunters and a 74% decrease in snowshoe harvest from 2004. The decrease in cottontail rabbit harvest is unexplainable because rabbits appeared to be the most abundant in 2005 that they have been over the past several years. No production or population information is collected on rabbit or hare populations.

American Crow

The American crow (*Corvus brachyrhynchos*) will continue to be a species with no active management.

Table 1. Estimated pheasant harvest, Upper Snake Region, 1983-present.

	Check station				Telephone survey[a]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds	Birds per hunter day
1983	58	56	1.0	2.9	108	18	0.1
1984	163	106	0.7	4.9	4,827	2,565	0.7
1985	124	41	0.3	9.0	3,681	5,933	0.5
1986	17	6	0.4	5.0	880	2,188	0.6
1987	15	7	0.5	10.0	1,387	2,198	0.5
1988	27	17	0.6	3.5	1,113	1,815	0.4
1989	47	9	0.2	15.5	1,502	2,023	0.4
1990	20	5	0.3	11.2	1,561	4,325	0.6
1991	10	0	0.0		765	1,441	0.6
1992	18	2	0.1	27.8	856	273	0.2
1993	8	0	0.0		588	928	0.4
1994	3	0	0.0		356	487	0.3
1995	2	0	0.0		487	487	0.3
1996	0	0	0.0		450	0	0.0
1997	7	0	0.0				
1998	2	0	0.0				
1999	2	0	0.0				
2000[b]	4	0	0.0				
2001[b]	1	2	2.0	1.3	1,125	2,573	0.5
2002[c]					719	1,718	0.6
2003[c]					954	2,654	0.3
2004[c]					1,103	2,625	0.7
2005					1,258	5,790	1.1
3-year average					1,105	3,690	0.6

[a] Telephone survey data at the regional level were not collected from 1997-2000.
[b] Check station operated only on Sunday of opening weekend.
[c] Check station not operated on opening weekend.

Table 2. Estimated forest grouse harvest, Upper Snake Region, 1983-present.

	Check station					Telephone survey[a]		
		Number of grouse			Forest grouse/100 hunters			Birds per hunter day
Year	Hunters[b]	Blue	Ruffed	Total[c]		Hunters	Birds harvested	
1983	1,711	79	1	80	4.6			
1984	1,292	56	0	56	4.3			
1985	2,796	45	7	52	1.6	1,198	3,176	0.9
1986	3,089	32	0	32	1.0	1,414	4,588	1.0
1987	2,932	59	14	73	2.0	1,482	4,653	1.1
1988	2,851	41	0	41	1.4	1,458	7,429	1.2
1989	2,150	67	3	70	3.0	1,688	9,295	1.0
1990	2,303	40	4	44	1.7	1,930	6,378	0.7
1991	2,250	38	0	38	1.7	1,917	7,102	1.3
1992[d]	1,561	7	7	14	0.5	2,055	12,914	0.9
1993	1,565	4	4	8	0.3	4,639	12,029	0.6
1994	1,634	14	12	26	1.6	4,027	16,239	0.8
1995	1,133	20	0	20	1.9	3,432	11,474	0.5
1996	432	24	2	26	7.1	1,642	4,927	0.6
1997	455	15	5	20	4.4			
1998	524	47	3	50	9.5			
1999	526	37	4	41	7.8			
2000	573	23	5	28	4.9			
2001	611	13	7	20	3.3	3,675	23,213	1.1
2002	742	48	12	60	8.1	2,745	17,200	1.1
2003	751	14	9	23	3.1	4,291	21,116	0.9
2004	647	11	1	33	5.1	4,459	14,900	0.7
2005	597	3	0	3	0.0	2,538	7,219	0.6
10-year average	584	24	5	29	6.6	3,225	14,763	0.9

[a] Telephone survey data at the regional level were not collected from 1983-1984 and 1997-2000.
[b] Number of hunters includes those hunting for forest grouse, sage-grouse, and partridge.
[c] Total includes those forest grouse checked that were not classified to species.
[d] A toxic chemical spill on I-15 on opening day 1992 resulted in some hunters being rerouted and missed by the Sage-Junction check station.

Table 3. Male greater sage-grouse counted on lek routes, Upper Snake Region, 1983-present.

	Lek route[a]																			
Year	LBC	RR	J	ML	LL	L[b]	P[c]	UBC	CC	MLk[b]	SS[d]	TB[e]	SR[e]	I[d]	TF[d]	LBL[b,f]	AC[f]	UBL[g]	Total	Avg.[h]
1983	68	88	39	150	148	66		1	22										582	73
1984	37	86	58	183	174	75			136										749	107
1985	50	81	57	200	268	35		31	122										844	106
1986	31	130	39	231	122	55		40	35										683	85
1987	36	123	57	223	194	120		32	213										998	125
1988	39	100	44	100	200	105			40										628	90
1989	42	75	14	53	102		151	13	59										509	64
1990	43	77		42	90	183	181	26	85	31									758	91
1991	56	61	38	71	126	230	296	3	106										987	110
1992	28	106	35	67	87	67	182	0	90										662	74
1993	18	34	49	25	57	100	144	0	58										485	54
1994	29	53	71	67	57	80	79	0	120										556	62
1995	18	40	77	50	79	62	106	4	105		83			18	75				717	60
1996	6	69	90	35	48	26	48	8	61		88			15	54				548	46
1997	16	74	67	32	77	72	106	13	120	26	131	70	57	26	77				964	64
1998	25	52	159	96	67	71	131	11	112	31	110	185	96	58	103	62	31		1,400	82
1999	37	168	125	129	131	110	80	17	132	30	162	129	143	117	113	74	24		1,721	101
2000	30	153	104	159	157	210	122	19	181	19	213	165	116	70	135	50	29		1,932	114
2001	28	106	115	165	115	149	104	22	138	10	284	174	138	89	125	67	31	51	1,911	106
2002	61	111	82	101	109	180	84	12	135	11	153	74	61	148	110	81	35		1,548	91
2003	98	110	114	144	81	233	138	25	167	34	189	157	105	135	132	51		35	1,948	115
2004	41	137	92	201	91		131	28	152		167	175	66	98	124		43	87	1,633	109
2005	85	124	142	213	57		130	40	136		314	322	55	179	220		111	72	2,200	147
10-year average	43	110	109	128	93	131	107	20	133	23	181	161	93	94	119	64	43	61	1,713	95

[a] LBC = Lower Birch Creek, RR = Red Road, J = Jacoby, ML = Medicine Lodge, LL = Little Lost, L = Lidy, P = Plano, UBC = Upper Birch Creek, CC = Crooked Creek, MLk = Market Lake, SS = Sheep Station, TB = Table Butte, SR = Stibal Road, I = Idaho National Laboratory, TF = Tractor Flat, LBL = Lower Big Lost, AC = Antelope Creek, and UBL = Upper Big Lost.
[b] Route discontinued in 2004.
[c] New route established in 1989.
[d] New route established in 1995.
[e] New route established in 1997.
f New route established in 1998 and discontinued in 2004.
[g] New route established in 2001.
[h] Avg. = the average per route counted.

Table 4. Greater sage-grouse production based on wing collections, Upper Snake Region, 1983-present.

Year	Juveniles:100 females	Juveniles:100 adults
1983	278	233
1984	154	133
1985	201	180
1986	234	201
1987	108	85
1988	90	69
1989	239	162
1990	279	173
1991	168	103
1992	155	106
1993	224	150
1994	200	136
1995	138	106
1996[a]	673	246
1997[a]	212	164
1998[a]	281	178
1999[a]	209	130
2000[a]	171	127
2001[a]	188	136
2002[a]	276	213
2003[a]	166	119
2004[a]	200	147
2005	297	215
10-year average	267	168

[a] Small sample sizes.

Table 5. Estimated greater sage-grouse harvest, Upper Snake Region, 1983-present.

	Check station				Telephone survey[a]		
Year	Hunters[b]	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds	Birds per hunter day
1983	1,711	1,860	1.1	3.8	3,014	7,053	0.8
1984	1,301	1,107	0.9	4.7	2,088	3,351	0.9
1985	2,796	2,933	1.1	4.9	4,614	13,459	1.1
1986	3,089	3,711	1.2	4.3	5,119	18,515	1.3
1987	2,932	3,714	1.3	4.1	4,370	16,979	1.3
1988	2,851	2,635	0.9	5.7	4,461	13,370	0.9
1989	2,150	2,202	1.0	4.6	3,541	10,521	1.4
1990	2,303	2,812	1.2	4.0	4,650	16,862	1.2
1991	2,250	1,944	0.9	5.5	4,385	10,593	1.1
1992[c]	1,561	1,077	0.7	7.4	3,660	4,990	0.6
1993	1,565	889	0.6	8.7	6,586	10,979	0.6
1994	1,634	1,131	0.7	7.2	3,765	8,728	0.8
1995	1,133	492	0.4	10.7	3,148	5,422	0.6
1996	432	202	0.5	7.6	1,543	2,536	0.6
1997	455	248	0.6	7.3			
1998	524	336	0.6	6.5			
1999	526	424	0.8	4.5			
2000	573	387	0.7	5.6	1,672	2,221	0.6
2001	611	367	0.6	6.5	1,777	2,147	0.6
2002	742	610	0.8	4.3	1,877	2,532	0.6
2003	751	515	0.7	5.0			
2004	647	349	0.5	5.9	2,240	2,263	0.5
2005	579	412	0.7	5.0	3,272	3,658	0.7
10-year average	584	385	0.7	5.5	2,032	2,539	0.6

[a] Telephone survey data at the regional level were not collected from 1997-1999. Telephone survey data for 2003 is not available.
[b] Number of hunters includes those hunting for forest grouse, sage-grouse, and partridge.
[c] A toxic chemical spill on I-15 on opening day in 1992 resulted in some hunters being rerouted and missed by the Sage-Junction check station.

Table 6. Sharp-tailed grouse counted on lek routes, Upper Snake Region, 1983-present.

	Route - maximum total count					
Year	Sand Creek	Grassy	Pine Creek[a]	Teton River[b]	Ozone[b]	Birch Creek[b]
1983	7	29				
1984	10	17				
1985	9	28				
1986	19	40				
1987	34	38				
1988	10	56				
1989						
1990	25	12				
1991	22	11				
1992		26				
1993	17	5				
1994	24	5				
1995	18	4				
1996	22	4				
1997	5	3				
1998	39	13				
1999	32	32	22			
2000	43	28	21			
2001	41	33	21			
2002	29	21	29			
2003	60	20	26			
2004	31	19	71	52	14	1
2005	34	22	74	60	14	55
10-year average	34	20	38	56	14	28

[a] New route established in 1999.
[b] New route established in 2004.

Table 7. Sharp-tailed grouse production based on wing collections, Upper Snake Region, 1985-present.

Year	Juveniles:100 adults	*n*
1985	131	120
1986	356	228
1987	93	326
1988	49	122
1989	167	72
1990	173	227
1991	270	122
1992	39	124
1993	39	38
1994	103	59
1995	285	50
1996	242	65
1997	338	92
1998	221	77
1999	176	243
2000	68	89
2001	61	134
2002	140	113
2003	38	73
2004	90	50
2005	73	206
10-year average	145	114

Table 8. Estimated sharp-tailed grouse harvest, Upper Snake Region, 1984-present.

	Check station				Telephone survey[a]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds	Birds per hunter day
1984	402	25	0.06	8.0	98	25	0.3
1985	993	117	0.12	7.0	321	575	0.7
1986	1,050	225	0.21	5.2	134	206	0.6
1987	1,125	327	0.29	4.9	283	618	1.1
1988	890	94	0.11	7.2	283	1,199	1.0
1989	696	65	0.09	9.1	362	953	1.4
1990	772	112	0.15	5.4	366	2,905	2.3
1991	826	94	0.11	6.4	555	653	0.6
1992[b]	645	65	0.10	8.8	393	967	1.4
1993	537	8	0.01	23.2	2,041	1,856	0.2
1994	496	22	0.04	7.9	1,423	1,723	0.4
1995	406	28	0.07	11.7	1,239	1,076	0.3
1996	199	6	0.03	9.3	1,543	1,433	0.3
1997	213	33	0.15	7.2			
1998[c]							
1999[c]							
2000[b]	39	19	0.49	6.4	1,019	2,107	0.7
2001[b]	23	15	0.65	5.5	891	1,344	0.6
2002[b]	4	0	0.00		793	1,295	0.6
2003[c]							
2004[c]					944	1,436	0.6
2005[c]					1,112	1,763	0.7
10-year average	96	15	0.16	6.8	1,080	1,778	0.6

[a] Telephone survey data at the regional level were not collected from 1997-1999. Telephone survey data for 2003 is not available.
[b] Check station operated 1 October.
[c] No check station data collected because sharptail season opened later (1 Oct) than sage-grouse season.

Table 9. Estimated chukar harvest, Upper Snake Region, 1984-present.

	Check station			Telephone survey[a]			
Year	Hunters[b]	Birds harvested	Birds per hunter	Hunters	Birds harvested	Hunter days	Birds per hunter day
1984	1,301	0	0.000				
1985	2,796	11	0.004				
1986	3,089	13	0.004				
1987	2,932	36	0.012				
1988	2,851	40	0.014				
1989	2,150	15	0.007				
1990	2,303	5	0.002				
1991	2,250	29	0.013				
1992[c]	1,561	10	0.006				
1993	1,565	0	0.000				
1994	1,634	9	0.006				
1995	1,133	13	0.011				
1996	432	9	0.021				
1997	455	10	0.022				
1998	524	19	0.036				
1999	526	6	0.011				
2000	573	15	0.026				
2001	611	24	0.039	213	383	752	0.5
2002	742	15	0.020	331	662	1,045	0.6
2003	751	8	0.011	490	820	1,283	0.6
2004	647	2	0.003	495	1,953	2,511	0.8
2005	597	0		726	3,206	2,128	1.5
10-year average	584	11	0.019	451	1,405	1,544	0.9

[a] Telephone survey data at the regional level were not collected prior to 2001.
[b] Number of hunters includes those hunting for forest grouse, sage-grouse, and partridge.
[c] A toxic chemical spill on I-15 on opening day 1992 resulted in some hunters being rerouted and missed by the Sage-Junction check station.

Table 10. Estimated gray partridge harvest, Upper Snake Region, 1984-present.

	Check station			Telephone survey[a]			
Year	Hunters[b]	Birds harvested	Birds per hunter	Hunters	Birds harvested	Hunter days	Birds per hunter day
1984	1,301	0	0.000				
1985	2,796	83	0.030				
1986	3,089	109	0.035				
1987	2,932	98	0.033				
1988	2,851	60	0.021				
1989	2,150	7	0.003				
1990	2,303	33	0.014				
1991	2,250	28	0.012				
1992[c]	1,561	18	0.012				
1993	1,565	7	0.004				
1994	1,634	13	0.008				
1995	1,133	2	0.002				
1996	432	7	0.016				
1997	455	11	0.024				
1998	524	7	0.013				
1999	526	26	0.049				
2000	573	12	0.021				
2001	611	1	0.002	825	2,319	2,516	0.9
2002	742	4	0.005	840	1,443	2,079	0.7
2003	751	0	0.000	626	761	1,758	0.4
2004	647	8	0.012	547	1,280	2,115	0.6
2005	597	22	0.037	765	3,271	3,451	1.0
10-year average	584	10	0.017	721	1,815	2,384	0.8

[a] Telephone survey data at the regional level were not collected prior to 2001.
[b] Number of hunters includes those hunting for forest grouse, sage-grouse, and partridge.
[c] A toxic chemical spill on I-15 on opening day 1992 resulted in some hunters being rerouted and missed by the Sage-Junction check station.

Table 11. Estimated turkey harvest, Upper Snake Region, 1987-present.

Hunt type	Year[a]	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
Controlled	1987	3	9	9	6		
	1988	3	9	9	1	33	33
	1989	1	3	3	0	0	5
	2002	1	10	10	2	20	40
	2003	1	100	81	45	10	430
	2004	2	200[b]	121	39	30	1,159
	2005	2	200[b]	169	70	13	934

[a] Hunts were not offered from 1990-2001.
[b] Includes 25 youth permits and 175 any hunter permits.

Table 12. Turkey translocation history, Upper Snake Region, 1984-present.

Year	Sub-species[a]	Release site - Unit	Source	Birds released
1984	R	Archer - 63A	Texas	16
	R	Deer Parks - 63A	Texas	16
1988	R	Deer Parks - 63A	Council, Idaho	12
1999	M	Big Lost River - 50	Idaho	59
2000	M	Archer - 63A	Panhandle, Clearwater Regions	46
	M	Deer Parks - 63A	Southwest Region, ID	45
2001	M	Units 63A, 67	Panhandle, Clearwater Regions	416
2002	M	Units 63A, 67, 69	Panhandle, Southwest Regions	163

[a] M = Merriam's; R = Rio Grande.

Table 13. Mourning doves banded in Upper Snake Region, 2003-present.

	Adult					
Year	Male	Female	Unknown	Hatch-year	Unknown	Total
2003	4	7	1	8	0	20
2004	73	20	11	122	0	226
2005	58	42	5	98	1	204
Total	135	69	17	228	1	450

Table 14. Estimated cottontail rabbit and snowshoe hare harvest, Upper Snake Region, 2003-present.

	Cottontail rabbit		Snowshoe hare	
Year	Hunters	Cottontails harvested	Hunters	Hares harvested
2003	514	2,356	18	18
2004	726	3,584	110	355
2005	204	1,111	37	92
3-year average	481	2,350	55	155

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Upland Game Surveys and Inventories
PROJECT:	W-170-R-30		
SUBPROJECT:	7	**STUDY NAME:**	Upland Game and Waterfowl Population Status and Trends
STUDY:	II		
JOB:	1		

PERIOD COVERED: April 1, 2005 to March 31, 2006

SALMON REGION

Climatic Conditions

Rainfall during summer months in 2005 was average to below average, with cool, wet weather during peak hatch periods for most species. Vegetative growth appeared above average early in the season. Vegetation growth and production was very good during early summer, but then quickly cured out over the late summer and early fall months. Winter conditions were generally moderate, with temperatures normal to below normal, and snow accumulation at lower elevations was average. In general, animals entered winter in average body condition, then encountered an average to hard winter, which should have produced moderate over-winter survival. Snow-pack (as measured at higher elevations) was approximately 120-130% of average by late winter. Onset of spring weather and associated plant phenology was near normal in 2006. Water-year precipitation to date has been approximately 140% of average. Early spring conditions were cool and wet; however, May precipitation was well below normal.

Trapping and Translocation

No trapping or translocation took place in Salmon Region for pheasant, quail, forest grouse, chukar partridge, gray partridge, or wild turkey during the reporting period.

Pheasant

Abstract

Small populations of pheasants exist in limited but stable habitats in Salmon Region. Hunting pressure and harvest are relatively light.

Population Surveys

No production data were collected during this reporting period. Pheasant populations in Custer and Lemhi counties are restricted to small areas along major river bottoms. The limited populations have not been systematically surveyed in the past.

Harvest Characteristics

In addition to low overall numbers, pheasants exist primarily on private lands with limited public hunting access, so harvest rates are low (Table 1).

Habitat Conditions

Pheasant habitat in Custer and Lemhi counties exists along the lower Lemhi and Pahsimeroi rivers and main Salmon River near Challis and Salmon. The habitat complex consists primarily of riparian areas, cattail (*Typha* spp.) marshes, hay meadows, and cattle pastures. Cereal cropland is uncommon. This habitat complex has been relatively stable from year to year and unaffected by annual weather variations or changes in grain commodity markets. However, reductions in the small amount of cereal grain acreage over time have negatively impacted pheasants. More recently, rural residential housing has been increasing, resulting in increased land clearing, more feral pets, and less hunting opportunity.

Management Implications

Pheasants in Salmon Region occur in limited geographic areas with declining habitat conditions, and they receive light hunting pressure. Although opportunities exist for minor habitat improvements, overall pheasant distribution and numbers are not likely to significantly improve in the foreseeable future. Overall, habitat available for pheasants and areas open to hunting will decrease concomitant with continued housing development. Harvest is currently limited by restricted access to private land, which is also unlikely to increase except for some opportunity associated with recent enrollment in the "Access Yes!" program.

Quail

Abstract

The small, exotic Gambel's quail population near Salmon appears to be at carrying capacity, indicating harvest could be initiated at a level near annual production.

Population Surveys

No production data were collected during this reporting period.

Harvest Characteristics

Hunting season is closed.

Habitat Conditions

Little is known of Gambel's quail habitat in the region. However, there do not appear to be any major land use changes occurring that threaten current quail habitat conditions.

Management Implications

A small, introduced population of Gambel's quail exists in isolated pockets within a few miles of Salmon. Little is known about this unhunted population. A few broods are usually reported each year and the population appears stable. Although limited in distribution, the population could likely support harvest. Opportunity and harvest would be primarily limited by access to private property. Although biologically justified, establishing a season on this population of exotic game birds may meet with public resistance because of its relatively small size and concerns of local people, many who feed quail on their property.

Forest Grouse

Abstract

Forest grouse populations, hunter effort, and harvest are primarily controlled by weather conditions during nesting and brood rearing. Minimal effort is therefore expended on production, habitat, or harvest data collection.

Population Surveys

No systematic surveys such as established brood routes or drumming counts are maintained for forest grouse species. Information on forest grouse production has been obtained in the past from incidental brood counts made by Department personnel. However, sample sizes were small, and effort expended and areas sampled varied considerably between personnel and years. Because resulting data had little management value, incidental brood counts were discontinued in 1988.

Harvest Characteristics

As a group, forest grouse account for more hunters, more hunter days, and more birds harvested than any other upland game species (Table 2).

No check stations are maintained specifically for forest grouse. A few birds are checked incidentally in the field and at big game check stations.

Habitat Conditions

Although forest grouse habitat may be altered by natural (fire, forest diseases) or human-related (logging, mining, grazing) forces, scale of such changes in Salmon Region is generally not large enough to significantly impact overall grouse populations. However, large-scale wildfires during summer 2000 that set back succession in large areas of Units 27 and 28 may lead to future increases in forest grouse populations.

Management Implications

Forest grouse populations in Salmon Region are primarily controlled by weather conditions rather than by short-term habitat changes or hunter harvest. Beginning in 1986, hunting season length was increased from 72 to 100 days. Despite this increase, forest grouse harvest declined from 1985 to 1986. After the mild winter and spring of 1987, harvest in 1987 increased by 50%, suggesting a substantial population increase apparently unaffected by the 1986 increase in season length. Given that populations are relatively unaffected by harvest, management strategies should emphasize maximum recreational opportunity and minimal data collection efforts.

Sage-grouse

Abstract

Sage-grouse lek counts and harvest decreased in 1992 and continued a downward trend through 1996. Harvest has apparently remained low, but little effort has been allocated toward local hunter contacts. Region-wide, lek attendance has been on a generally increasing trend since 1997.

Population Surveys

Salmon Region personnel have significantly increased sage-grouse lek data collection efforts in recent years, increasing number of leks visited from 1 in 1979-1981 to a peak of 51 leks in 2002. Data from individual leks or groups of leks show variability in terms of maximum male sage-grouse attendance (Table 3). However, several leks showed an increase in number of birds in attendance from 1997-2004. Lek attendance continued on an increasing trend in 2006. The average of 19.3 males/lek was above the long-term average (13.1). In general, spring lek counts in and of themselves are apparently not good indicators of fall harvest in Salmon Region.

Sage-grouse production in Salmon Region is highly variable depending upon spring weather conditions (Table 4). No sage-grouse brood route counts have been conducted since 1988.

Harvest Characteristics

Hunter days and harvest reached a recent low in 1997 (Table 5). Some hunters and birds from Salmon Region are checked through the Howe and Sage Junction check stations in Upper Snake Region. In addition, some roving field checks are made of sage-grouse hunters during opening weekends (Tables 6 and 7). Data from both types of field checks and from telephone surveys are somewhat correlated.

Habitat Conditions

Documented loss of sage-grouse habitat in Salmon Region has been minimal in recent years. Habitat losses that do occur are generally caused by sagebrush conversion on private lands, desert land entry on public lands, conifer encroachment into sagebrush habitats, loss of wet-meadow habitats, or wildfire. Conversely, existing habitat conditions are poor to fair in several

areas as a result of intensive livestock grazing, particularly in years of below average precipitation.

Habitat Use Monitoring

During late April and early May 2002, 15 sage-grouse (13 male, 2 female) were captured in several areas in Salmon Region. Most birds were captured in Lemhi Valley; additional capture sites included Pahsimeroi Valley and Hat Creek/Deer Creek drainages. All birds were equipped with radio transmitters and leg bands. The project was part of a challenge cost-share agreement with BLM, and the primary goal was to identify areas used by sage-grouse during winter. Two birds died before winter and 2 could not be located. Hunters did not harvest any radio-marked birds. Birds were located several times during winter and some demonstrated relatively long movements. Winter weather conditions were relatively mild, suggesting birds could use a wide range of locations that may not be suitable under more normal or severe winter conditions. Most birds wintered in the general vicinity of leks where they were captured and returned to the same leks in March 2003.

As part of the same cost-share agreement, approximately 10 hours of helicopter survey time were allocated to searching for undocumented sage-grouse leks in several suitable habitat areas in Salmon Region. Four previously unknown lek sites as well as several satellite leks were identified.

A second challenge cost-share project with BLM was initiated spring 2003 with a goal of identifying nest locations and brood-rearing areas in the upper Lemhi basin. During early April 2003, 12 females and 5 males were radio-marked. Ten of 11 hens that survived to nesting season initiated nests. Of those, 3 were successful (≥1 egg hatched), but only 1 hen was observed with chicks. Habitat measurements collected at nest sites indicated vegetation parameters fell within the guidelines identified by Connelly et al. (2000). Six (4 female, 2 male) of 17 sage-grouse marked in 2003 survived to March 2004; 7 birds died and 4 were censored. Only 1 of 14 marked birds that survived to autumn was reported as harvested during the 2003 season (a banded hen that had shed the radio transmitter).

Cost-share work on sage-grouse was continued in 2004 when we radio-marked 10 hens (3 adult, 7 yearling) and banded 30 males. We detected only 3 nest attempts from 11 hens (including 4 marked in 2003) and no nests hatched. Only 1 bird was reported harvested (a male) during the 2004 hunting season.

As part of a project funded through the Challis Sage-grouse Local Working Group, we captured and radio-marked 8 hens and banded 48 males in the Pahsimeroi Valley during spring 2005. Two females died shortly after capture; 3 of the remaining 6 hens initiated nests. One hen successfully hatched a brood. No leg bands were returned from marked birds in fall 2005.

Again, cost-share work continued in the Pahsimeroi Valley in spring 2006. Fifteen hens were radio-marked and 19 males were banded. Nineteen radio-marked birds were monitored, 15 from 2006 and 4 from 2005. One female died shortly after capture and 2 other hens could not be located for the remainder of the season; 11 of the remaining 16 hens initiated nests. Nine nests

were successful. Nest-site vegetation measurements were taken at each nest location. Monitoring movement activity will continue periodically throughout the year.

Management Implications

The Lemhi and Pahsimeroi valleys are the most productive sage-grouse areas in the region. The Lemhi Valley summer population is comprised of resident grouse and birds that migrate from wintering/breeding areas in lower Birch Creek to summer range in Lemhi Valley. We do not know if a similar condition exists in the Pahsimeroi Valley.

During 1986 and 1987, 196 sage-grouse were translocated into the Sawtooth Valley where populations had declined, but there was no apparent significant habitat loss. Reproduction was documented among these birds. No further translocations are planned for this area. Isolated reports of sage-grouse were received during the summers of 1994 and 1996, and fall 1997, but the Sawtooth population does not appear to be thriving.

Sage-grouse production is strongly dependent upon spring weather. Cold and wet conditions during hatching and brooding can significantly decrease production. Most sage-grouse nesting habitat throughout Salmon Region can be subject to severe spring weather. This is a normal phenomenon for relatively high elevation sage-grouse range. A 1- to 2-year decline in productivity (indicated by harvest and lek counts) due to weather is not necessarily indicative of a declining population. Harvest management has little direct impact on populations.

Chukar

Abstract

Chukar numbers and hunting pressure are strongly weather dependent. Some potential still exists for habitat enhancement by fencing selected riparian brood-rearing areas and reducing acreage occupied by noxious weeds.

Population Surveys

No production data were collected during this reporting period. Anecdotally, chukar production improved somewhat compared to 2004, but still appeared low during 2005, likely due to unfavorable weather conditions during peak hatching.

Harvest Characteristics

Chukar harvest and hunter participation varies dramatically from year to year depending upon weather conditions and real or perceived availability of birds (Table 8). Estimates of regional harvest indicate an increasing trend in chukar harvest over the last decade, reaching a high of >14,000 birds in 2003. Estimates of regional harvest appear to fluctuate widely and may reflect inadequate sampling of hunters in the region.

Habitat Conditions

Chukar habitats in Salmon Region are generally stable. However, some areas are threatened by spotted knapweed (*Centaurea maculosa*) and other noxious weed invasions. Other habitats may be created or altered by wildfire. In areas where water may be limiting, Department personnel have cooperated with BLM and USFS to install guzzlers, primarily directed at other wildlife species but probably providing water for chukars as well.

The drought years of 1988-1994 may have exacerbated problems with domestic livestock grazing in riparian areas used by chukar for brood rearing. The Department is continuing to work on cooperative agreements to fence such sites on public lands.

Management Implications

Chukar populations in Salmon Region are primarily weather dependent. Hunting pressure varies dramatically depending upon chukar population levels. However, hunting has little, if any, direct impact on chukar populations.

Management direction should be to offer maximum recreational opportunity with minimal population monitoring efforts. Some habitat enhancement may be possible by fencing livestock out of selected riparian areas and working cooperatively with land management agencies to control noxious weeds.

Gray Partridge

Abstract

Gray partridge rank a distant third with regard to harvest among Salmon Region's upland game birds. Due to limited, scattered habitat, gray partridge are not expected to significantly increase.

Population Surveys

No production data were collected during this reporting period.

Harvest Characteristics

Although usually ranked third among upland bird harvest, gray partridge represent a minor portion of upland game hunter effort and bag in Salmon Region (Table 9).

Habitat Conditions

Although widely distributed, gray partridge habitat is not abundant in Salmon Region. Nor is it likely to significantly increase because most agricultural lands are marginal for cereal crops and are better suited for livestock pasture or hay meadows.

Management Implications

Information on distribution and population level of gray partridge in Salmon Region is minimal. Hunter effort and harvest are moderate but may be increasing. Extensive efforts to collect more data are probably not justified.

Wild Turkey

Abstract

Small populations of turkeys appear to be established near Challis and south of Salmon, and a very limited hunting season was implemented in spring 2005. Between 1991 and 1999, 139 wild turkeys were released in Salmon Region to augment existing groups and in novel areas. However, habitat limitations and access to private property may restrict ability to permit significant hunting opportunity.

Population Surveys

Small populations of wild turkeys exist along the Lemhi and Salmon rivers near Salmon and Challis. However, no systematic trend counts or brood route counts are conducted.

Harvest Characteristics

A controlled hunt with 5 permits was instituted in Units 36B and 37 in spring 2005. Four out of 5 hunters (80%) were successful in harvesting a turkey.

Habitat Conditions

Potential wild turkey winter habitat exists in deciduous river bottoms along Salmon River in the vicinity of Salmon, Challis, and North Fork. These habitat pockets may support small populations, but winter habitat (including landowner tolerance) appears limiting in Salmon Region. Virtually all winter habitat is privately owned.

Trapping and Transplanting

No activities occurred during the study period. Between 1991-1999, 139 wild turkeys were released in Salmon Region to augment existing groups and in novel areas (Table 10).

Management Implications

Current population levels can probably sustain limited recreational harvest. However, access to private lands, where most wild turkeys occur, will be critical to developing harvest management and opportunity. Available winter habitat and environmental conditions will likely limit wild turkey populations to low levels.

Mourning Dove

Abstract

Mourning doves breed in moderate numbers in Salmon Region but are usually only lightly harvested here due to migration timing.

Population Surveys

Salmon Region contains a breeding population of mourning doves. The only population information is obtained from a call count in the southern portion of Lemhi Valley. During 1985, 1986, and 1987, a total of 4 mourning doves were seen or heard along the route (Table 11). In 1988, the southern half of the route was relocated 3 miles to the east. The 1988 count on the old route was 1 mourning dove call and on the new route, the count was 4 calls plus 9 birds seen. However, ≤3 birds were seen or heard annually from 1989 to 2001. Beginning in 2000, the western portion (approximately 7 miles) of the route on Highway 28 was relocated to the north and east. The new section follows Lemhi Back Road from Leadore to Little Eightmile Creek.

As part of a national mourning dove banding project (under auspices of USFWS), staff in Salmon Region established 3 capture locations: Salmon, Baker, and Ellis. We placed bands on 82 doves (39 at Salmon, 43 at Baker) during July and August 2003. Of those, 65 were adults (37 males, 22 females, 6 unknown) and 17 were hatch-year birds. All doves received a standard leg band on the right leg, and for all odd-numbered bands, a gold band was placed on the opposite leg. No doves were captured at the Ellis site. During 2004, traps were deployed at Salmon and Baker sites. We placed 144 new bands (48 at Salmon, 96 at Baker) and recaptured 14 (17%) doves originally banded during 2003. Ninety-nine doves were adults (64 males, 18 females, 17 unknown), 44 were hatch-year birds, and 1 was of unknown age. All doves received a standard leg band; some hatch-year doves also received a reward band on the opposite leg. We operated Salmon and Baker trap sites in 2005, placing standard bands on 149 birds (75 at Salmon, 74 at Baker) and recapturing 11 (13%) and 19 (14%) birds originally banded in 2003 and 2004. One dove was of unknown age, 97 were adults (53 males, 32 females, 12 unknown), and 51 were hatch-year birds (Table 12).

Harvest Characteristics

During years in which mourning doves delay their migration slightly, Salmon Region hunters are able to harvest moderate numbers of birds. In most years, harvest is low. Due to small sample sizes, telephone survey harvest data are imprecise at the county level.

Habitat Conditions

Mourning doves are common but not abundant throughout the region, indicating that perhaps suitable habitat is limited. Most dove use is located in riparian willow habitats associated with cattle ranching operations; these habitats are likely to decrease as housing developments replace working ranches. However, dove numbers may remain stable if appropriate vegetation accompanies housing development.

Management Implications

The extended season (60 days) from 1983 to 1986 had little effect on harvest because many doves move out of the area soon after the 1 September opening date. Similarly, the 30-day season initiated in 1987 due to a general decline in mourning dove numbers in the western United States probably did not affect harvest in our area.

Rabbits and Hares

Abstract

Rabbits and hares receive little emphasis from sportsmen or wildlife managers in Salmon Region.

Population Surveys

No production data were collected during this reporting period.

Harvest Characteristics

Salmon Region contains huntable populations of both cottontails and pygmy rabbits. However, harvest seasons for pygmy rabbits were closed in 2002. Rabbits and hares appear to be of only incidental interest to sportsmen. Harvest apparently varies greatly from year to year, depending upon rabbit populations (Table 13).

Habitat Conditions

Little is known of habitat conditions across the region. There may be a slight downward trend as overall range conditions improve and sagebrush is converted to grassland.

Management Implications

Rabbits and hares are generally of low interest to sportsmen; recreational opportunity still greatly exceeds demand. Very little management data neither is collected nor is it anticipated this effort would increase.

American Crow

Abstract

The American crow is, and will continue to be, a species with no active management.

Literature Cited

CONNELLY, J. W., M. A. SCHROEDER, A. R. SANDS, and C. E. BRAUN. 2000. Guidelines to manage sage-grouse populations and their habitats. Wildlife Society Bulletin 28 (4):967-985.

Table 1. Estimated pheasant harvest, Salmon Region, 1985-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds/ hunter	Birds/ hunter day
1985	388	1,199	1,018	3.1	1.2
1986	315	387	528	1.2	0.7
1987	339	497	797	1.5	0.6
1988	175	244	340	1.4	0.7
1989	289	231	642	0.8	0.4
1990	235	284	570	1.2	0.5
1991	155	200	985	1.3	0.2
1992	286	490	442	1.7	1.1
1993	340	804	1,422	2.4	0.6
1994	225	1,555	1,180	6.9	1.3
1995	223	223	569	1.0	0.4
2001	206	365	875	1.8	0.4
2002	445	686	980	1.5	0.7
2003	60	60	119	1.0	0.5
2004	173	279	398	1.6	0.7
2005	169	377	425	2.2	0.9
3-year average	134	239	314	1.6	0.7

[a] Telephone survey data at the regional level were not collected from 1996-2000.

Table 2. Estimated forest grouse harvest, Salmon Region, 1985-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds/ hunter	Birds/ hunter day
1985	1,325	3,590	4,662	2.7	0.8
1986	835	3,086	3,354	3.7	0.9
1987	907	4,628	3,329	5.1	1.4
1988	956	4,762	5,411	5.0	0.9
1989	962	4,356	5,004	4.5	0.9
1990	930	3,708	5,453	4.0	0.7
1991	803	2,205	3,150	2.7	0.7
1992	1,378	9,647	10,042	7.0	1.0
1993	2,350	5,566	12,864	2.4	0.4
1994	3,184	11,557	21,277	3.6	0.5
1995	3,574	12,834	20,775	3.6	0.6
2001	2,171	10,914	11,304	5.0	1.0
2002	1,941	6,636	7,544	3.4	0.9
2003	2,179	15,821	11,041	7.3	1.4
2004	1,789	6,848	8,155	3.8	0.8
2005	1,437	5,107	5,810	3.6	0.9
3-year average	1,802	9,259	8,335	4.9	1.0

[a] Telephone survey data at the regional level were not collected from 1996-2000.

Table 3. Male greater sage-grouse counted on North Lemhi lek routes, Salmon Region, 1993-present.

Year	North Lemhi lek L-3	All North Lemhi leks L-3 to L-5
1993	0	0
1994		0
1995		0
1996		0
1997	14	17
1998	16	16
1999	0	0
2000	0	0
2001	0	18
2002	15	31
2003	19	28
2004	16	29
2005	11	29
2006	16	43

Table 4. Greater sage-grouse production based on wing collections, Salmon Region, 1979-present.

Year	Juv:100 females	Juv:100 adults	Percent unsuccessful females
1979	275	149	60
1980	188	102	66
1981	118	75	45
1982	157	113	57
1983	275	133	36
1984	228	134	52
1985	150	72	53
1986	247	159	45
1987	126	61	53
1988	143	72	
1989	177	98	
1990	175	116	
1991	168	100	69
1992	150	70	70
1993	149	100	56
1994	133	83	57
1995	78	40	
1996	320	155	47
1997	257	189	43
1998	520	347	60
1999	325	173	63
2000	149	100	51
2001	218	117	55
2002	229	114	67
2003	280	124	73
2004	190	121	81
2005	117	50	44
10-year average	261	149	58

Table 5. Estimated greater sage-grouse harvest, Salmon Region, 1985-present.

	Check station[a]				Telephone survey[b]		
Year	Hunters	Birds harvested	Birds/ hunter	Hours/ bird	Hunters	Birds harvested	Birds/ hunter day
1985	180	228	1.3	6.5	667	976	0.8
1986	106	147	1.4	4.5	390	911	1.9
1987	117	265	2.3	3.0	625	2,852	2.0
1988	120	276	2.3	3.0	727	2,326	0.8
1989	125	192	1.5	3.6	560	974	0.8
1990	155	167	1.1	3.9	519	1,842	1.1
1991	91	153	1.7	4.1	760	2,122	0.8
1992	93	105	1.1	7.0	913	941	0.4
1993	84	48	0.6	13.1	1,670	2,620	0.6
1994	74	64	0.9	7.1	1,236	4,327	0.9
1995	79	25	0.3	23.9	1,117	2,132	0.4
1996	68	31	0.5	9.2			
1997	42	19	0.5	11.1			
1998	62	29	0.5	7.5			
1999	56	50	0.9	4.1			
2000	48	60	1.3	5.7	526	788	1.5
2001	41	29	0.7	7.8	440	571	1.3
2002	63	60	1.0	6.4	629	956	0.7
2003	52	50	1.0	7.9			
2004	25	20	0.8	5.4	364	459	0.6
2005	33	40	1.2	7.7	728	949	0.7
10-year average	49	39	0.8	7.28	537	745	1.0

[a] Howe and Sage Junction check stations.

[b] Telephone survey data at the regional level were not collected from 1996-1999. Data from 2000-2003 includes all mountain-valley areas (zones 7A and 7B). Telephone survey data for 2003 is not available.

Table 6. Opening weekend field checks of greater sage-grouse hunters, Lemhi Valley, Salmon Region, 1981-2001.

Year	Hunters	Birds harvested	Birds/hunter	Hours/bird
1981	105	199	1.9	2.6
1982	48	55	1.2	5.1
1983	133	128	1.0	4.0
1984	49	50	1.0	5.1
1985	117	81	0.7	9.2
1986	104	120	1.2	4.3
1987	97	134	1.4	4.2
1988	67	94	1.4	3.9
1989	34	30	0.9	5.1
1990	23	31	1.3	2.7
1991				
1992	101	77	0.8	6.2
1993				
1994	59	58	1.0	4.6
1995	18	12	0.7	5.2
1996				
1997	6	0	0.0	
1998	18	11	1.6	7.2
1999	19	22	1.2	3.5
2000				
2001	11	5	0.5	13.2

Table 7. Opening weekend field checks of greater sage-grouse hunters, Pahsimeroi Valley, Salmon Region, 1981-1998.

Year	Hunters	Birds harvested	Birds/hunter	Hours/bird
1981	108	134	1.2	3.7
1982	71	68	1.0	3.6
1983	13	4	0.3	11.0
1984	8	5	0.6	7.8
1985	55	46	0.8	3.7
1986	22	43	2.0	3.1
1987	44	57	1.3	-
1988	25	21	0.8	1.7
1989	33	38	1.2	1.7
1990	15	12	0.8	4.7
1991				
1992	21	16	0.8	3.0
1993				
1994	19	8	0.4	8.0
1995	2	1	0.5	6.0
1996				
1997	13	5	0.4	4.4
1998	2	4	2.0	3.5

Table 8. Estimated chukar harvest, Salmon Region, 1985-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds/ hunter	Birds/ hunter day
1985	96	23		0.2	0.9
1986	166	263		1.6	1.1
1987	569	2,097		3.7	1.6
1988	529	2,548		4.8	1.1
1989	444	1,139		2.6	0.8
1990	499	4,964	1,460	9.9	3.4
1991	276	1,837	1,435	6.7	1.3
1992	713	7,809	3,725	11.0	2.1
1993	495	1,886	3,216	3.8	0.6
1994	862	4,027	3,765	4.7	1.1
1995	812	3,980	4,346	4.9	0.9
2001	927	6,847	4,236	7.4	1.6
2002	1,276	7,080	4,282	5.5	1.7
2003	2,341	14,046	9,717	6.0	1.4
2004	1,744	11,852	7,374	6.8	1.6
2005	726	3,206	2,128	4.4	1.5
3-year average	1,604	9,701	6,406	5.7	1.5

[a] Telephone survey data at the regional level were not collected from 1996-2000.

Table 9. Estimated gray partridge harvest, Salmon Region, 1985-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds/ hunter	Birds/ hunter day
1985	20	3		0.2	3.0
1986	49	35		0.7	1.8
1987	112	848		7.6	0.9
1988	38	38		1.0	0.6
1989	64	125		2.0	2.7
1990	89	96		1.1	0.8
1991	100	275		2.8	0.5
1992	45	0		0.0	
1993	278	278	1,051	1.0	0.3
1994	318	1,292	1,704	4.1	0.8
1995	426	508	1,868	1.2	0.3
2001	283	1,209	1,418	4.3	0.9
2002	322	966	1,057	3.0	0.9
2003	217	236	370	1.1	0.6
2004	403	217	1,839	0.5	0.1
2005	272	1,082	960	4.0	1.1
3-year average	297	512	1,056	1.9	0.6

[a] Telephone survey data at the regional level were not collected from 1996-2000.

Table 10. Turkey translocation history, Salmon Region, 1983-present.

Year	Sub-species[a]	Release site - Unit	Birds released M	F	Total	New or supplemental release
1983	R	Shoup Bridge area - 28	0	16	16	N
	M	Shoup Bridge area - 28	2	3	5	S
1985	R	Shoup Bridge area - 28	5	0	5	S
1991	M	Shoup Bridge area - 28	3	12	15	S
	M	Salmon River - 36B	4	21	25	N
1993	M	Fourth of July Creek - 21A	13	12	25	N
	M	Salmon River - 36B	6	4	10	S
1999	M	Salmon River - 37			50	N
	M	Salmon River - 28			14	N

[a] M = Merriam's; R = Rio Grande.

Table 11. Mourning dove call-count survey results and estimated harvest, Salmon Region, 1985-present.

	Call-count routes		Telephone survey[a]		
Year	Miles counted	Doves/mile	Hunters	Birds harvested	Birds/ hunter day
1985	20	0.10	22	335	7.4
1986	20	0.00	114	1,037	3.6
1987	20	0.10	42	943	10.0
1988	20	0.05	68	431	3.2
	20[b]	0.55			
1989	20	0.10	0	0	0.0
1990	20	0.05	31	4	1.0
1991	20	0.00	0	0	0.0
1992	20	0.05	0	0	0.0
1993	20	0.05	186	3,092	3.1
1994	20	0.05	150	1,274	2.4
1995	20	0.10	223	833	1.0
1996	0				
1997	0				
1998	0				
1999	20	0.00			
2000[b]	20	0.00			
2001	20	0.15			
2002	20	0.30			
2003	20	0.35			
2004	20	0.55			
2005	20	0.05			
2006	20	0.60			

[a] New telephone survey methodology employed beginning in 1993 (results not directly comparable to previous results). Telephone survey data at the regional level were not collected after 1995; harvest is reported directly to USFWS by hunters.
[b] Route relocated.

Table 12. Mourning doves banded in Salmon Region, 2003-present.

Year	Adult Male	Adult Female	Adult Unknown	Hatch-year	Unknown	Total
2003	37	22	6	17	0	82
2004	63	19	18	44	0	144
2005	53	32	12	51	1	149
Total	153	73	36	112	1	375

Table 13. Estimated cottontail harvest, Salmon Region, 1985-present.

Year[a]	Hunters	Cottontails harvested	Days hunted	Cottontails/ hunter	Cottontails/ hunter day
1985	143	621		4.3	1.5
1986	126	38		0.3	0.5
1987	0				
1988	19	75		3.9	1.3
1989	0				
1990	117	757		6.5	6.5
1991	59	203		3.4	1.0
1992	64	31	11	0.5	2.8
1993[b]	928	18,894	6,679	20.4	2.8
1994	880	23,150	4,851	26.3	4.8
1995	670	4,366	4,833	6.5	0.9
2001	114	321	161	2.8	2.0
2002	29	58	58	2.0	1.0
2003	166	474	327	2.9	1.4
2004	388	4,337	1,582	11.2	2.7
2005	82	232	168	2.8	1.4
3-year average	212	1,681	692	5.6	1.8

[a] Telephone survey data at the regional level were not collected from 1996-2000.
[b] New telephone survey methodology employed beginning in 1993 (results not directly comparable to previous results).

APPENDIX A

IDAHO

2005 SEASON

UPLAND GAME RULES

Upland Game Seasons & Rules

Idaho Department of Fish & Game

Upland Game Birds, Rabbits and Hares
Sept. 2004-March 2005
Sept. 2005-March 2006

Furbearers, Predators & Unprotected Species
July 2004-June 2006

Crows, Doves and Sandhill Cranes
Sept. 2004-January 2005
Sept. 2005-January 2006

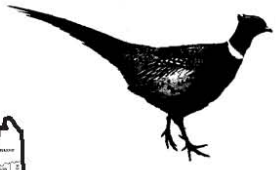
Falconry
August 2004-January 2006

Abbreviated Trapping Regulation
July 2004-June 2005
July 2005-June 2006
(If you intend to trap, please pick up a complete set of Trapping Regulations at any IDFG regional office.)

REGULATIONS
2004-2005
2005-2006

photo by Richard Scully

PHEASANTS - ALL VARIETIES



AREA 1

Benewah, Bonner, Boundary, Clearwater, Idaho, Kootenai, Latah, Lewis, Nez Perce, and Shoshone Counties.

Seasons
2004 — October 9 through December 31
2005 — October 8 through December 31

Daily Bag Limit ..... **3 cocks**
Possession Limit After First Day of Season .. **6 cocks**

AREA 2

Bannock, Bear Lake, Bingham, Bonneville, Butte, Caribou, Cassia, Clark, Custer, Franklin, Fremont, Jefferson, Lemhi, Madison, Minidoka, Oneida, Power, and Teton counties.

Seasons
Area 2 seasons begin at noon on opening day and are as follows:
2004 — October 16 through November 30
2005 — October 15 through November 30

Daily Bag Limit ..... **3 cocks**
ExceptMarket Lake and Mud Lake WMAs in Jefferson County, Cartier WMA in Madison County, and Sterling WMA in Bingham County. ..... 2 cocks

Possession Limit After First Day of Season .... **6 cocks**
ExceptMarket Lake and Mud Lake WMAs in Jefferson County, Cartier WMA in Madison County, Sterling WMA in Bingham County. ..... 4 cocks

AREA 3

Ada, Adams, Blaine, Boise, Camas, Canyon, Elmore, Gem, Gooding, Jerome, Lincoln, Owyhee, Payette, Twin Falls, Valley, and Washington Counties (including all islands in the Snake River except Patch and Porter Islands). Hunting hours start at 10a.m. after opening day on Fort Boise, C.J. Strike, Montour and Payette River WMAs.

Seasons
Area 3 seasons begin at noon on opening day and are as follows:
2004 — October 16 through December 31
2005 — October 15 through December 31

Patch and Porter Islands: Seasons begin on the dates shown above. Closing dates will correspond with those set by the Oregon Fish and Game Commission. Check with Southwest Region Office, (208) 465-8465, or see Oregon small game regulations.

Daily Bag Limit ..... **3 cocks**
ExceptFort BoiseWMA (including Gold Island) in Canyon County, C.J. Strike WMA in Owyhee County, birding Island segment of the Payette River WMA in Payette County and Montour Management Area in Gem County and Niagara Springs WMA in Gooding County. .... 2 cocks

Possession Limit After First Day of Season ..... **6 cocks**
ExceptFort BoiseWMA (including Gold Island) in Canyon County, C.J. Strike WMA in Owyhee County, birding Island segment of the Payette River WMA in Payette County and Montour Management Area in Gem County and Niagara Springs WMA in Gooding County. .... 4 cocks

YOUTH PHEASANT SEASON

The Youth Pheasant Season opens on the first weekend of October. In Areas 2 and 3 the season begins at noon. It is open statewide and lasts 2 days. It is open for all licensed hunters 15 years of age or younger. All youth hunters must be accompanied by an adult 18 years or older. The daily bag limit is 3 cocks, and the possession limit after the first day of the season is 6 cocks except on WMAs where pheasants are stocked bag limit is 2 cocks and possession is 4 cocks.

**One adult may accompany more than one youth hunter.*

Pheasant information continues on the next page.

WMA PHEASANT PERMIT

Hunting for pheasants on the 9 WMAs requires a WMA pheasant permit.

Recording harvest: The Department releases pheasants at 9 Wildlife management Areas (WMAs) in Southern Idaho. Any person 17 years old or older must have a valid WMA Pheasant Permit in possession while hunting pheasants at the following WMAs:

Area	Location Code	Area	Location Code
Fort Boise	01	Market Lake	06
Payette River	02	Mud Lake	07
Montour	03	Cartier Slough	08
C.J. Strike	04	Niagara Springs	09
Sterling	05		

Permit Validation: When a pheasant is reduced to possession, the hunter must immediately:

A. Enter in the space provided, the month and day the pheasant was taken.

B. Enter in the space provided, the location code (listed above) of the WMA where the pheasant was taken.

C. It is not necessary to remove the notch from the permit for each pheasant taken.

Distribution and Habitat Use: Shaded area(s) show general distribution of this species. The ring-necked pheasant is widely distributed in agricultural areas. Important habitat needs are grassy areas or other dense nesting cover at least 18 inches high, permanent cover that provides protection from winter weather, and abundant water and food (especially grain). Pheasants are common in this type of habitat along the Snake River Plain from the Oregon border to central Idaho. They are present in lower densities in agricultural habitats below 5,000 feet in eastern Idaho and below 4,000 feet in northern Idaho from Benewah County south to Whitebird.

FOREST GROUSE -

Blue, Ruffed, and Spruce

ENTIRE STATE OPEN

Seasons
2004 — September 1 through December 31
2005 — September 1 through December 31

Daily Bag Limit ..... **4 in the aggregate**
Possession Limit After First Day of Season ..... **8 in the aggregate**

Distribution and Habitat Use: Shaded area(s) show general distribution of these species. Idaho's three species of forest grouse are all native to the state. In northern Idaho, ruffed grouse are the most common forest grouse. Good populations are also found in the mountains of central and eastern Idaho and southeastern Idaho west to the Sublett Mountains. Riparian habitats and other moist mountain brush areas are commonly used by these birds. Blue grouse are more common than other grouse in most southern Idaho mountains. They favor high elevation sagebrush and mountain shrub areas for nesting, springs and stream banks for rearing young and rely heavily on Douglas fir for fall and winter food and cover. The sparsely-distributed spruce grouse are found in dense conifer forests, generally from the Salmon and Payette river drainages north.

BOBWHITE & CALIFORNIA QUAIL

(No season on Gambel's and Mountain Quail)

AREA 1

Bannock, Bear Lake, Bingham, Bonneville, Butte, Caribou, Clark, Custer, Franklin, Fremont, Jefferson, Lemhi, Madison, Oneida, Power, and Teton Counties; CLOSED.

AREA 2

Ada, Adams, Benewah, Boise, Bonner, Boundary, Canyon, Clearwater, Gem, Idaho, Kootenai, Latah, Lewis, Nez Perce, Payette, Shoshone, Valley, and Washington Counties. Also included is that portion of Owyhee County west of the following boundary: beginning at the Idaho-Nevada border and the Jarbidge River, then north along the Jarbidge River to its confluence with the Bruneau River, then north along the Bruneau River to Bruneau, then north on State Highway 51 to the Owyhee-Elmore County line. Also included is that portion of Elmore County west of the following boundary: beginning at U.S. Highway 51 and the Owyhee-Elmore County line, then north on U.S. Highway 51 to Interstate 84, then north on U.S. Highway 20 to the Anderson Ranch Dam Road (Forest Service Road 134), then up the center of Anderson Ranch Rsvr. to the confluence of Fall Creek, then up Forest Service Road 129 to its junction with Forest Service Road 156, then southeast of Forest Service Road 156 to Rocky Bar, then northeast on Forest Service Road 126 to James Creek Summit, then east along the watershed divide between the Middle and South Forks of the Boise River to the intersection with the Elmore-Camas County line.

Seasons
2004 — September 18 through January 31
2005 — September 17 through January 31

Daily Bag Limit ..... 10 in the aggregate
Possession Limit After
First Day of Season ..... 20 in the aggregate

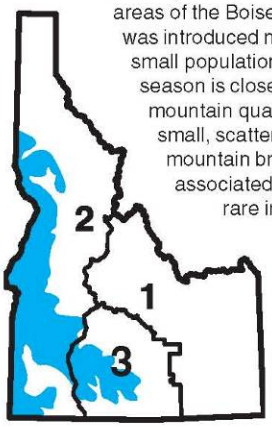
AREA 3

Blaine, Camas, Cassia, Gooding, Jerome, Lincoln, Minidoka, Twin Falls Counties and also included is that portion of Owyhee County east of the following boundary: beginning at the Idaho-Nevada border and the Jarbidge River, then north along the Jarbidge River to its confluence with the Bruneau River, then north along the Bruneau River to Bruneau, then north on State Highway 51 to the Owyhee-Elmore County line. Also included is that portion of Elmore County east of the following boundary: beginning at U.S. Highway 51 and the Owyhee-Elmore County line, then north on U.S. Highway 51 to Interstate 84, then north on U.S. Highway 20 to the Anderson Ranch Dam Road (Forest Service Road 134), then up the center of Anderson Ranch Rsvr. to the confluence of Fall Creek, then up Forest Service Road 129 to its junction with Forest Service Road 156, then southeast of Forest Service Road 156 to Rocky Bar, then northeast on Forest Service Road 126 to James Creek Summit, then east along the watershed divide between the Middle and South Forks of the Boise River to the intersection with the Elmore-Camas County line.

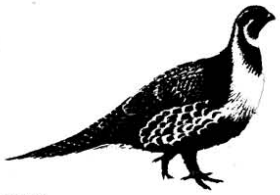
Seasons
2004 — September 18 through December 31
2005 — September 17 through December 31

Daily Bag Limit ..... 10 in the aggregate
Possession Limit After
First Day of Season ..... 20 in the aggregate

Distribution and Habitat Use: Shaded area(s) show general distribution of these species. There are three introduced and one native species of quail in Idaho. The California (valley) quail, which occurs from Twin Falls west to the Oregon border and north to the Palouse Prairie, is the most common. Good populations live along rivers, streams and other areas of abundant water and brushy cover below about 3,500 feet elevation. The bobwhite quail was introduced to Idaho in the 1880s and still exists in small, scattered populations in agricultural areas of the Boise Valley. The Gambel's quail was introduced near Salmon in 1917, and a small population still exists there. The season is closed on Gambel's quail. The mountain quail, a native bird, exists in small, scattered populations in dense mountain brush fields usually associated with riparian areas. It is rare in the mountains from Boise to Bennett Mountain, the Owyhee Mountains, and along the Little Salmon River, Main Salmon and lower Snake River. The season is closed on mountain quail.



SAGE GROUSE



Note: *Twin Falls County and most of Cassia County are closed to the hunting of sharp-tailed grouse. Be sure of your target!*

AREA 1

Ada, Adams, Benewah, Blaine County within the Salmon River drainage, Boise, Bonner, Boundary, Canyon, Cassia County south of Interstate 86 and east of Interstate 84, Clearwater, Custer County within the Salmon River drainage upstream from and including Valley Creek, Elmore County EXCEPT that portion south and east of US Highway 20 and north of Interstate 84, Gem, Idaho, Kootenai, Latah, Lewis, Nez Perce, Oneida County north and east of Interstate 84, Payette, Power County south of Interstate 86, Shoshone, Valley, and Washington Counties; CLOSED.

AREA 2

Bannock, Bear Lake, Bingham, Blaine County east of the Arco-Minidoka road, Bonneville, Butte County south of US Highways 20/26 and 22/33 and east of the Arco-Minidoka road and the entire Birch Creek drainage, Caribou, Cassia EXCEPT that portion south of Interstate 86 and east of Interstate 84, Clark, Franklin, Fremont, Jefferson, Lemhi County within the Birch Creek drainage, Madison, Oneida EXCEPT that portion north and east of Interstate 84, Owyhee County north of the Juniper Mountain/Mud Flat/Poison Creek roads and Highway 78 to Grandview and the Snake River, Owyhee County east of the Bruneau River, Power County north of Interstate 86, Twin Falls and Teton Counties.

Seasons
2004 — September 18 through September 24
2005 — September 17 through September 23

Daily Bag Limit 1
Possession Limit After First Day of Season 2

AREA 3

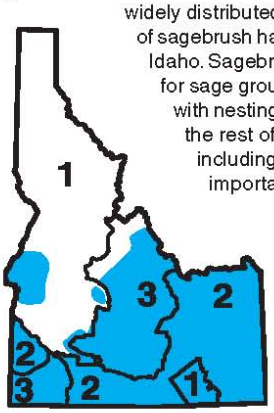
Blaine County EXCEPT that part within the Salmon River drainage and that part east of the Arco-Minidoka Road, that part of Butte County north of US Highway 20/26 and State Highway 22/33 not within the Birch Creek drainage, and that part south of US Highway 20/26 and State Highway 22/33 and that part west of the Arco-Minidoka Road, Camas, Custer County EXCEPT that portion within the Salmon river drainage upstream from and including Valley Creek, Elmore County south and east of US Highway 20 and north of Interstate 84, Gooding, Jerome, Lemhi County EXCEPT that portion within the Birch Creek drainage, Lincoln, Minidoka, Owyhee County south of the Juniper Mountain/Mud Flat/Poison Creek roads and Highway 78 to Grandview and the Snake River and west of the Bruneau River.

Seasons
2004 — September 18 through October 10
2005 — September 17 through October 9

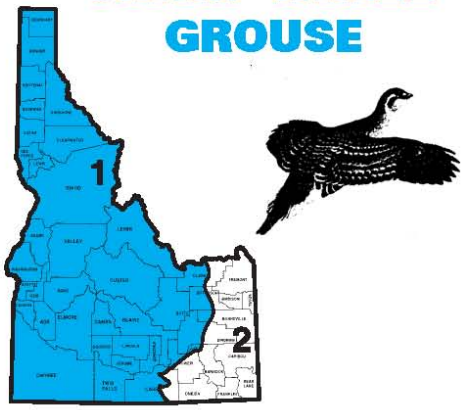
Daily Bag Limit 2
Possession Limit After First Day of Season 4

Sage/Sharp-tailed Grouse Permit Validation: Any person hunting sage or sharp-tailed grouse must have in possession their hunting license with a sage/sharp-tailed grouse permit validation. See pages 3-4.

Distribution and Habitat Use: Shaded area(s) show general distribution of this species. This native grouse is widely distributed in areas with large blocks of sagebrush habitat throughout southern Idaho. Sagebrush is a crucial winter food for sage grouse and also provides them with nesting and roosting cover during the rest of the year. Wet places, including agricultural lands, are important feeding areas for hens with chicks and are heavily used by sage grouse during the fall in dry years.



SHARP-TAILED GROUSE



AREA 1

Ada, Adams, Bannock County west of Interstate 15 and north of Interstate 86, Benewah, Bingham County west of Interstate 15, Blaine, Boise, Bonner, Bonneville County west of Interstate 15, Boundary, Butte, Camas, Canyon, Cassia County west of Interstate 84 north of the Malta-Sublett Road and west of the Malta-Strevell Road, Clark County west of Interstate 15, Clearwater, Custer, Elmore, Gem, Gooding, Idaho, Jefferson County west of Interstate 15, Jerome, Kootenai, Latah, Lemhi, Lewis, Lincoln, Minidoka, Nez Perce, Owyhee, Payette, Power County north of Interstate 86, Shoshone, Twin Falls, Valley, and Washington counties; CLOSED.

AREA 2

Bingham and Clark counties east of Interstate 15, Franklin, Fremont, Jefferson County east of Interstate 15, Madison, and Teton counties, Bonneville County east of Interstate 15, Bannock County east of Interstate 15 and south of Interstate 86, Bear Lake, Caribou, Cassia County east of Interstate 84 and that portion west of Interstate 84 south of the Malta-Sublett Road and east of the Malta-Strevell Road, Franklin, Oneida, and Power County south of Interstate 86.

Seasons
2004 — October 1 through October 31
2005 — October 1 through October 31

Daily Bag Limit **2**
Possession Limit After First Day of Season **4**

Sage/Sharp-tailed Grouse Permit Validation: Any person hunting sage or sharp-tailed grouse must have in possession their license with a sage/sharp-tailed grouse permit validation. See page 3-4.

Distribution and Habitat Use: Shaded area(s) show general distribution of this species. Columbian sharp-tailed grouse were once distributed in grassland/mountain brush habitats throughout southern and western Idaho north to the Palouse Prairie. Habitat changes due to agricultural development and livestock grazing, and human development, among other factors, have reduced this grouse's range to areas mostly in southeastern Idaho. Agricultural lands enrolled in the Conservation Reserve Program are currently providing important habitat for this species and have led to increased populations since 1986. Good populations still exist from Fremont County south to Utah in grasslands associated with chokecherry, sagebrush, hawthorn, serviceberry, bitterbrush and other brushy cover. The season is closed on a small remnant population north of Weiser and a transplanted population in Shoshone Basin, south of Twin Falls.

Note: *Sharp-tailed grouse have recently been introduced into historical range south of Twin Falls. The area remains closed to hunting for sharptails to protect this population.*

CHUKAR & GRAY PARTRIDGE

ENTIRE STATE

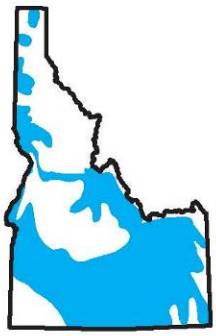
OPEN

Chukar

Distribution and Habitat Use: Shaded area(s) show general distribution of chukar partridge. This species was introduced into Idaho from Asia. They are common in suitable habitat along the Salmon, Snake and Boise rivers, and along other river drainages of southern and central Idaho up to an elevation of about 5,000 feet. Chukar habitat consists of steep, rocky canyons with grassy and brushy vegetation.

Gray Partridge

Distribution and Habitat Use: Gray partridge, another introduced species, are most common in agricultural regions, but can also be found in sagebrush/ grassland areas. They are hardy birds able to withstand severe winter weather if adequate food is available. Gray partridge are widely distributed, but are most common in the state's agricultural valleys.



AREA 1

Ada, Adams, Benewah, Boise, Bonners, Boundary, Canyon, Clearwater, Gem, Idaho, Kootenai, Latah, Lewis, Nez Perce, Payette, Shoshone, Valley, Washington, Owyhee County west of the following boundary: beginning at the Idaho-Nevada border and the Jarbidge River, then north along the Jarbidge River to its confluence with the Bruneau River, then north along the Bruneau River to Bruneau, then north on State Highway 51 to the Owyhee-Elmore County line. Also included is that portion of Elmore County west of the following boundary: beginning at U.S. Highway 51 and the Owyhee-Elmore County line, then north on U.S. Highway 51 to Interstate 84, then north on U.S. Highway 20 to the Anderson Ranch Dam Road (Forest Service Road 134), then up the center of Anderson Ranch Rsvr. to the confluence of Fall Creek, then up Forest Service Road 129 to its junction with Forest Service Road 156, then southeast of Forest Service Road 156 to Rocky Bar, then northeast on Forest Service Road 126 to James Creek Summit, then east along the watershed divide between the Middle and South Forks of the Boise River to the intersection with the Elmore-Camas County line.

Seasons
2004—September 18 through January 31, 2005
2005—September 17 through January 31, 2006

Daily Bag Limit .....8 Chukar and 8 Gray Partridge
Possession Limit After First
Day of Season ..... 16 Chukar & 16 Gray Partridge

AREA 2

Lemhi County (not including Birch Creek Valley) and Custer County in the Salmon River drainage.

Seasons
2004—September 18 through January 15, 2005
2005—September 17 through January 15, 2006

Daily Bag Limit .....8 Chukar and 8 Gray Partridge
Possession Limit After First
Day of Season .....16 Chukar & 16 Gray Partridge

AREA 3

Fremont, Clark, Lemhi County within Birch Creek Valley, Custer County within the Big Lost Valley and Little Lost Valley, Blaine, Camas, Owyhee County east of the following boundary: beginning at the Idaho-Nevada border and the Jarbidge River, then north along the Jarbidge River to its confluence with the Bruneau River, then north along the Bruneau River to Bruneau, then north on State Highway 51 to the Owyhee-Elmore County line. Also included is that portion of Elmore County east of the following boundary: beginning at U.S. Highway 51 and the Owyhee-Elmore County line, then north on U.S. Highway 51 to Interstate 84, then north on U.S. Highway 20 to the Anderson Ranch Dam Road (Forest Service Road 134), then up the center of Anderson Ranch Rsvr. to the confluence of Fall Creek, then up Forest Service Road 129 to its junction with Forest Service Road 156, then southeast of Forest Service Road 156 to Rocky Bar, then northeast on Forest Service Road 126 to James Creek Summit, then east along the watershed divide between the Middle and South Forks of the Boise River to the intersection with the Elmore-Camas County line.

Seasons
2004—September 18 through December 31, 2004
2005—September 17 through December 31, 2005

Daily Bag Limit .....8 Chukar and 8 Gray Partridge
Possession Limit After First
Day of Season .....16 Chukar & 16 Gray Partridge

Turkey Seasons

GENERAL HUNT SEASONS

- **April 15, 2005 through May 25, 2005.** General Spring Hunt in Game Management Units 1, 2 (Except Farragut State Park and Farragut WMA) & Units 3, 4, 4A, 5, 6, 8, 8A, 10, 10A, 11, 11A, 12, 13, 14, 15, 16, 16A, 17, 18, 19, 20, 22, 23, 24, 31, 32 (except that portion in Payette County), 32A, 33, 39, 73, 74, 75, 77 and 78.
- **April 9-10, 2005.** General Spring Youth Hunt in Game Management Units open to General Season turkey hunting (units listed above, see page 6 for age requirements).
- **September 15, 2005 through October 31, 2005.** General Fall Hunt in Game Management Units 1, 2 (Except Farragut State Park and Farragut WMA), 3, 4, 4A, 5, 6, 73, 74, 75, 77 and 78.
- **September 15, 2005 through October 9, 2005.** General Fall Hunt in Game Management Units 8, 8A, 10, 10A, 11, 11A, 12, 13, 14, 15, 16, 16A, 17, 18, 19 and 20.
- **November 21, 2005 through December 31, 2005.** General Fall Hunt in Game Management Units 8, 8A, 10A, 11, 11A, and 16. This hunt is open on private lands only.
- **September 15, 2005 through October 4, 2005.** General Fall Hunt in Game Management Units 22, 23, 24, 31, 32, 32A, 33, 39.

BAG AND POSSESSION LIMITS

The daily bag limit is one bearded turkey per day in the spring and one turkey (either sex) per day in the fall. No more than 3 turkeys may be taken per year. No more than 2 bearded turkeys may be taken per spring. No more than 2 turkey (either sex) per fall.

Tags: There are 2 types of tags, "General" and "Extra". The general tag is valid for all general seasons. If the general tag is not used to harvest a turkey in the spring it may be used in fall season.

The general tag may also be used with a spring controlled hunt permit to hunt in a spring controlled hunt.

On or after May 1, extra tags may be used in general spring seasons. The extra tag may also be used in fall general seasons.

2004 REGIONAL TURKEY HARVEST

REGION	SPRING	FALL	TOTAL HARVEST
Panhandle	815	562	1,377
Clearwater	1,600	516	2,116
Southwest	860	581	1,441
Southeast	81	298	379
Success	25%	39%	

Information in this brochure summarizes the rules and is the official proclamation of the Idaho Fish and Game Commission for the taking of turkeys. The official rules are available from the Division of Statewide Administrative Rules, Department of Administration, Statehouse Mail, Boise, ID 83720, and may be reviewed in some libraries. Maps are for general reference only.

CONTROLLED HUNT SEASONS

USE THESE NUMBERS ON YOUR CONTROLLED HUNT APPLICATION

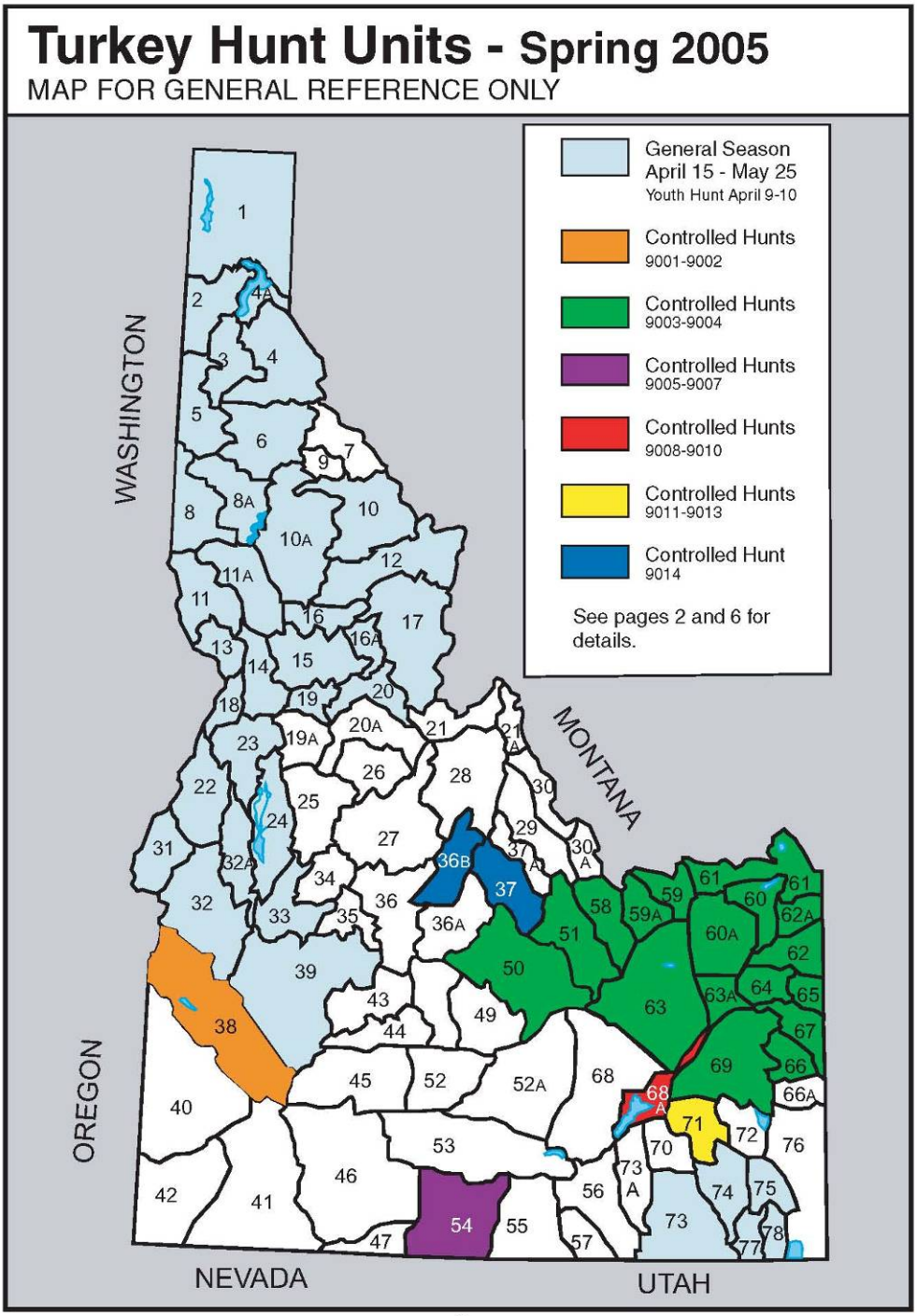
WILD TURKEY CONTROLLED HUNT AREA DESCRIPTIONS

SPRING HUNTS

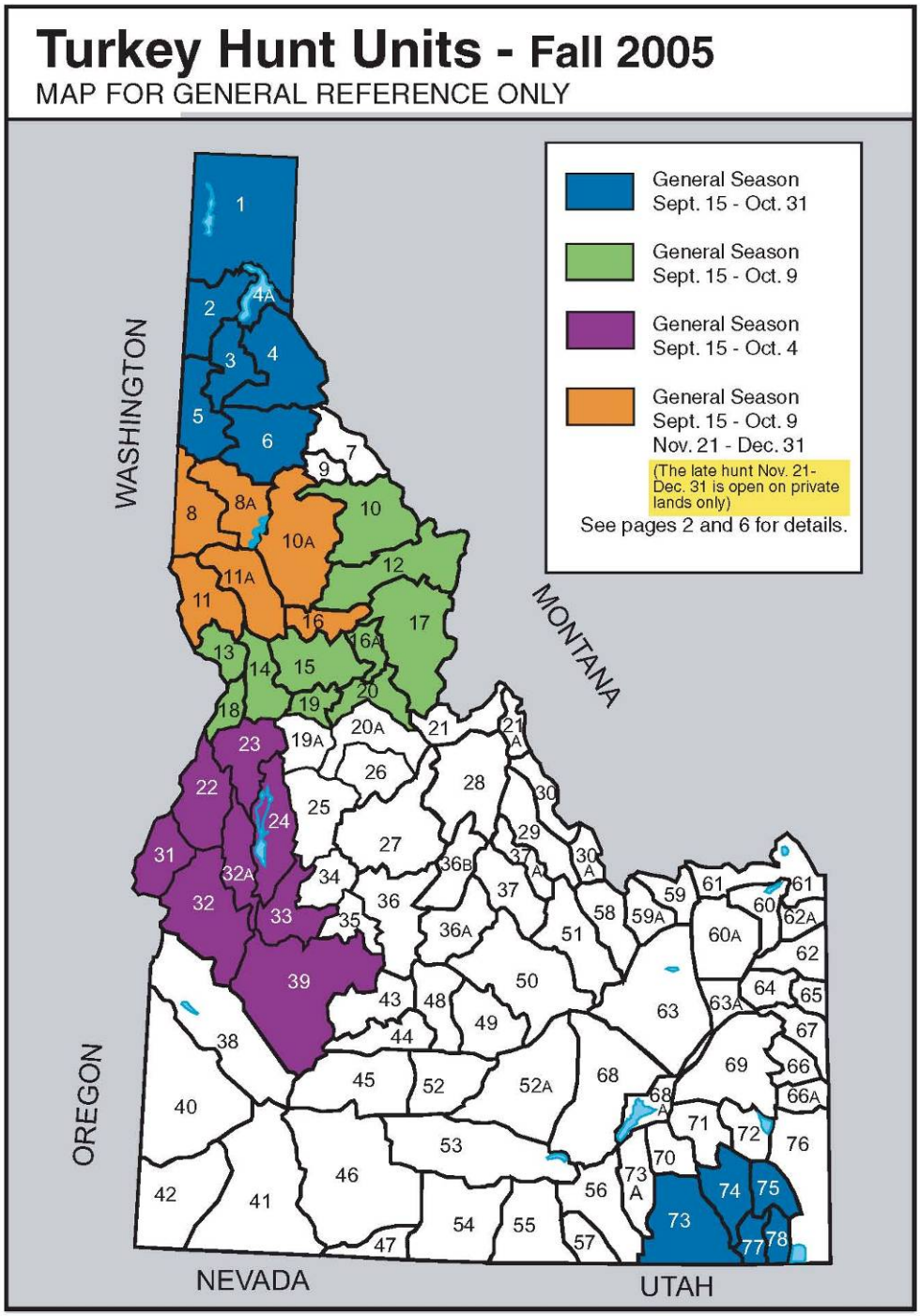
Hunt No.	Description
9001	**Hunt Area 938-1:** All of Unit 38 and that portion of Unit 32 in Payette County. **April 15 - May 25** **75 Permits** **ACCESS IS LIMITED**
9002	**Hunt Area 938-2:** All of Unit 38 and that portion of Unit 32 in Payette County. **YOUTH HUNT (15 or younger on 4/15/05)** **April 15 - May 25** **10 Permits** **ACCESS IS LIMITED**
9003	**Hunt Area 950-1:** All of Unit 50, 51, 58, 59, 59A, 60, 60A, 61, 62, 62A, 63, 63A, 64, 65, 66, 67,69. **April 15 - May 25** **175 Permits***
9004	**Hunt Area 950-2:** All of Unit 50, 51, 58, 59, 59A, 60, 60A, 61, 62, 62A, 63, 63A, 64, 65, 66, 67,69. **YOUTH HUNT (15 or younger on 4/15/05)** **April 15 - May 25** **25 Permits***
9005	**Hunt Area 954-1:** All of Unit 54. **YOUTH HUNT (15 or younger on 4/15/05)** **April 15- May 25** **12 Permits**
9006	**Hunt Area 954-2:** All of Unit 54. **April 15 - May 5** **12 Permits**
9007	**Hunt Area 954-3:** All of Unit 54. **May 6 - May 25** **12 Permits**
9008	**Hunt Area 968A-1:** All of Unit 68A. **YOUTH HUNT (15 or younger on 4/15/05)** **April 15 - May 25** **15 Permits***
9009	**Hunt Area 968A-2:** All of Unit 68A. **April 15 - April 30** **15 Permits***
9010	**Hunt Area 968A-3:** All of Unit 68A. **May 1 - May 25** **15 permits***
9011	**Hunt Area 971-1:** All of Unit 71. **YOUTH HUNT (15 or younger on 4/15/05)** **April 15 - May 25** **25 permits**
9012	**Hunt Area 971-2:** All of Unit 71. **April 15 - April 30** **25 permits**
9013	**Hunt Area 971-3:** All of Units 71. **May 1 - May 25** **25 permits**
9014	**Hunt Area 936B:** All of Units 36B and 37. **April 15 - May 25** **5 permits** **ACCESS IS LIMITED** ***(recommend do not apply unless you have access to private property)***

*** See page 8 for bald eagle related closures.***

Costs associated with this publication are available from IDFG in accordance with section 60-202, Idaho Code. 12-04/110,000/41918


Turkey Hunt Units - Spring 2005
MAP FOR GENERAL REFERENCE ONLY
General Season
April 15 - May 25
Youth Hunt April 9-10
Controlled Hunts
9001-9002
Controlled Hunts
9003-9004
Controlled Hunts
9005-9007
Controlled Hunts
9008-9010
Controlled Hunts
9011-9013
Controlled Hunt
9014
See pages 2 and 6 for details.
WASHINGTON
MONTANA
OREGON
NEVADA
UTAH

3


Turkey Hunt Units - Fall 2005
MAP FOR GENERAL REFERENCE ONLY
General Season Sept. 15 - Oct. 31
General Season Sept. 15 - Oct. 9
General Season Sept. 15 - Oct. 4
General Season Sept. 15 - Oct. 9 Nov. 21 - Dec. 31
(The late hunt Nov. 21-Dec. 31 is open on private lands only)
See pages 2 and 6 for details.
WASHINGTON
MONTANA
OREGON
NEVADA
UTAH

4

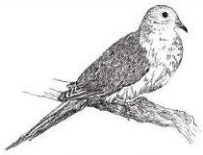
IDAHO FISH AND GAME
2005 MOURNING DOVE SEASON AND LIMITS

2005 Season: September 1 - September 30
Daily Bag Limit: 10
Possession Limit: 20 (after first day)

✓Federal Migratory Game Bird Harvest Information Program Validation—REQUIRED
✓Nontoxic Shot—NOT REQUIRED

OFFICIAL SHOOTING HOURS FOR MOURNING DOVES DURING SEPTEMBER
(One-half hour before sunrise to sunset)

The tables below have been adjusted to actual shooting times. No further adjustment is necessary.



	Benewah, Bonner, Boundary, Clearwater, Kootenai, Latah, Lewis, that portion of Idaho County north of the Salmon River, Nez Perce and Shoshone counties.		Blaine, Butte, Camas, Cassia, Custer, Gooding, Jerome, Lemhi, Lincoln, Minidoka, and Twin Falls counties.		Bannock, Bear Lake, Bingham, Bonneville, Caribou, Clark, Franklin, Fremont, Jefferson, Madison, Oneida, Power and Teton counties.		Ada, Adams, Boise, Canyon, Elmore, Gem, that portion of Idaho County south of theSalmon River, Owyhee, Payette, Valley, and Washington counties.	
September	**Begin (AM)**	**End (PM)**	**Begin (AM)**	**End (PM)**	**Begin (AM)**	**End (PM)**	**Begin (AM)**	**End (PM)**
1	5:38	7:31	6:31	8:13	6:25	8:05	6:38	8:21
2	5:39	7:29	6:32	8:12	6:26	8:04	6:39	8:19
3	5:41	7:27	6:33	8:10	6:27	8:02	6:40	8:17
4	5:42	7:25	6:34	8:08	6:28	8:00	6:42	8:15
5	5:43	7:23	6:35	8:07	6:29	7:59	6:43	8:14
6	5:45	7:21	6:36	8:05	6:30	7:57	6:44	8:12
7	5:46	7:19	6:37	8:03	6:31	7:55	6:45	8:10
8	5:48	7:17	6:38	8:01	6:32	7:53	6:46	8:08
9	5:49	7:15	6:39	8:00	6:33	7:52	6:47	8:06
10	5:50	7:13	6:40	7:58	6:34	7:50	6:48	8:05
11	5:52	7:11	6:41	7:56	6:35	7:48	6:49	8:03
12	5:53	7:09	6:42	7:54	6:36	7:46	6:50	8:01
13	5:54	7:07	6:43	7:52	6:37	7:44	6:52	7:59
14	5:56	7:05	6:45	7:51	6:29	7:43	6:53	7:57
15	5:57	7:03	6:46	7:49	6:40	7:41	6:54	7:56
16	5:58	7:01	6:47	7:47	6:41	7:39	6:55	7:54
17	6:00	6:59	6:48	7:45	6:42	7:37	6:56	7:52
18	6:01	6:57	6:49	7:43	6:43	7:35	6:57	7:50
19	6:02	6:55	6:50	7:41	6:44	7:34	6:58	7:48
20	6:04	6:53	6:52	7:39	6:45	7:32	6:59	7:46
21	6:05	6:51	6:53	7:37	6:46	7:30	7:01	7:45
22	6:06	6:49	6:54	7:36	6:47	7:28	7:02	7:43
23	6:07	6:47	6:55	7:35	6:48	7:26	7:03	7:41
24	6:08	6:45	6:56	7:33	6:49	7:25	7:04	7:39
25	6:09	6:42	6:58	7:31	6:50	7:24	7:05	7:37
26	6:11	6:40	6:59	7:29	6:52	7:22	7:06	7:35
27	6:12	6:38	7:00	7:27	6:53	7:20	7:08	7:34
28	6:13	6:35	7:02	7:25	6:54	7:18	7:09	7:32
29	6:14	6:33	7:03	7:23	6:55	7:16	7:10	7:30
30	6:15	6:31	7:04	7:21	6:56	7:14	7:11	7:28

UPLAND GAME ANIMALS — COTTONTAIL RABBITS AND SNOWSHOE HARES

UNLAWFUL METHODS OF TAKE

No person shall take upland game animals:

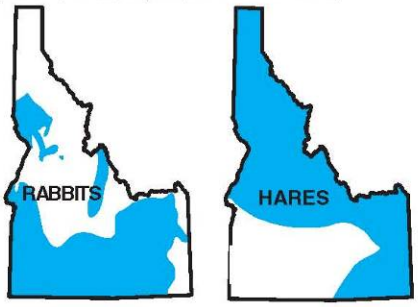
- From one-half hour after sunset to one-half hour before sunrise.
- With a trap, snare, net, or shotgun using shotgun shells exceeding three and one-half (3 1/2) inches in length.
- From boats or other craft having a motor attached UNLESS the motor is completely shut off and forward progress has ceased, or the boat is drifting naturally, or it is propelled only by paddle, oars, or pole, or it is beached, moored, or resting at anchor.
- By the use or aid of any electronic call.

TO CORRECTLY DISTINGUISH COTTONTAIL RABBITS (SEASON OPEN) AND PYGMY RABBITS (SEASON CLOSED), CHECK FOR THESE CHARACTERISTICS.

Cottontail Rabbit
Tail: dark above and white underneath
Size: More than one foot in length (13.5-16.6 inches)

Pygmy Rabbit
Tail: buffy gray with no white on it.
Size: Less than one foot in length (9.7-11.3 inches)

- Contact your local regional office to determine if pygmy rabbits are found in your area of interest



Shaded areas show general distribution of these species.

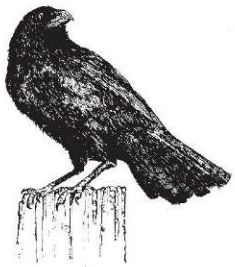
AREAS CLOSED TO HUNTING

Hunting, killing, or molesting upland game animals is prohibited in the following areas:

- Craters of the Moon National Monument. See page 11 for a full description.
- Harriman State Park Wildlife Refuge in Fremont County.
- Nez Perce National Historical Park in Clearwater, Idaho and Nez Perce Counties.
- That portion of Ada County within Veterans Memorial Park and the area between State Highway 21 and the New York Canal from the New York Canal Diversion Dam downstream to the Boise City limits.
- Yellowstone National Park in Fremont County.
- On any of those portions of federal refuges, State game preserves, State wildlife management areas, bird preserves, bird refuges, and bird sanctuaries for which bird hunting closures have been declared by legislative or Commission action.

SEASONS, BAG AND POSSESSION LIMITS - STATEWIDE			
SPECIES	**SEASON**	**DAILY BAG LIMITS**	**POSSESSION LIMIT** (After 1st day of season)
COTTONTAIL RABBITS	2004: SEP 1, 2004–FEB 28, 2005 2005: SEP 1, 2005–FEB 28, 2006	8	16
PYGMY RABBITS	**SEASON CLOSED**		
SNOWSHOE HARES	2004: SEP 1, 2004–MARCH 31, 2005 2005: SEP 1, 2005–MARCH 31, 2006	8	16

AMERICAN CROWS



No person shall take American crows:

- From one-half hour after sunset to one-half hour before sunrise.
- With trap, snare, net, rifle, pistol or a shotgun using shells exceeding three and one-half (3 1/2) inches maximum length.
- From boats or other craft having a motor attached UNLESS the motor is completely shut off and forward progress has ceased, or the boat is drifting naturally or it is propelled only by paddle, oars, or pole, or it is beached, moored, or resting at anchor.

AREAS CLOSED TO HUNTING

Areas closed to hunting of upland game birds are also closed to hunting of American crows. See page 8.

SEASONS, BAG AND POSSESSION LIMITS - STATEWIDE		
SPECIES	SEASON	DAILY BAG AND POSSESSION LIMITS
AMERICAN CROW	2004: OCT 1, 2004–JAN 31, 2005 2005: OCT 1, 2005–JAN 31, 2006	NO LIMITS

FALCONRY

Species from the following families may be used for falconry:

- Accipitridae (except the bald eagle).
- Falconidae.
- Strigidae (Great horned owl only).

Hunting season: Upland game birds and upland game animals may be taken by falconry during firearms seasons established for those species and during extended falconry seasons (see table on page 22). During firearm season, falconers may take firearm season bag and possession limits (see page 22). During extended falconry seasons, special limits apply (see page 22).

Migratory game birds may be taken by falconry during firearms seasons established for those species. However, during firearms seasons and extended falconry seasons, special bag and possession limits apply (see table on page 22).

Falconers are now required to have state permits for raptor captive breeding, falconry, falconry capture (nonresidents only), falconry in-state transfer, and falconry meet (nonresidents only). A falconry training permit is required when training with released upland game birds and waterfowl. Permits can be purchased at IDFG Regional Offices.

There are special requirements regarding the capture, possession, transfer and use of birds of prey in Idaho. Complete rules are available from: IDFG, P.O. Box 25, Boise, ID 83707.

SPECIAL RESTRICTIONS ON HUNTING WITH BIRDS OF PREY

Anytime a hunting bird of prey kills quarry that may not be taken under established rules, seasons, bag limits, or license requirements, the falconer must leave the dead quarry where it lies. EXCEPT that the bird of prey may feed upon the quarry before leaving the kill site.

No person may carry a firearm or be accompanied by any person carrying a firearm while hunting by falconry.

All Idaho residents, hunting by falconry must have in their possession a valid Idaho falconry permit, a valid hunting license and all necessary validations.

All nonresidents, hunting by falconry must have in their possession a valid Idaho hunting license, all necessary validations and a valid falconry permit from their state of residence.

Submitted by:

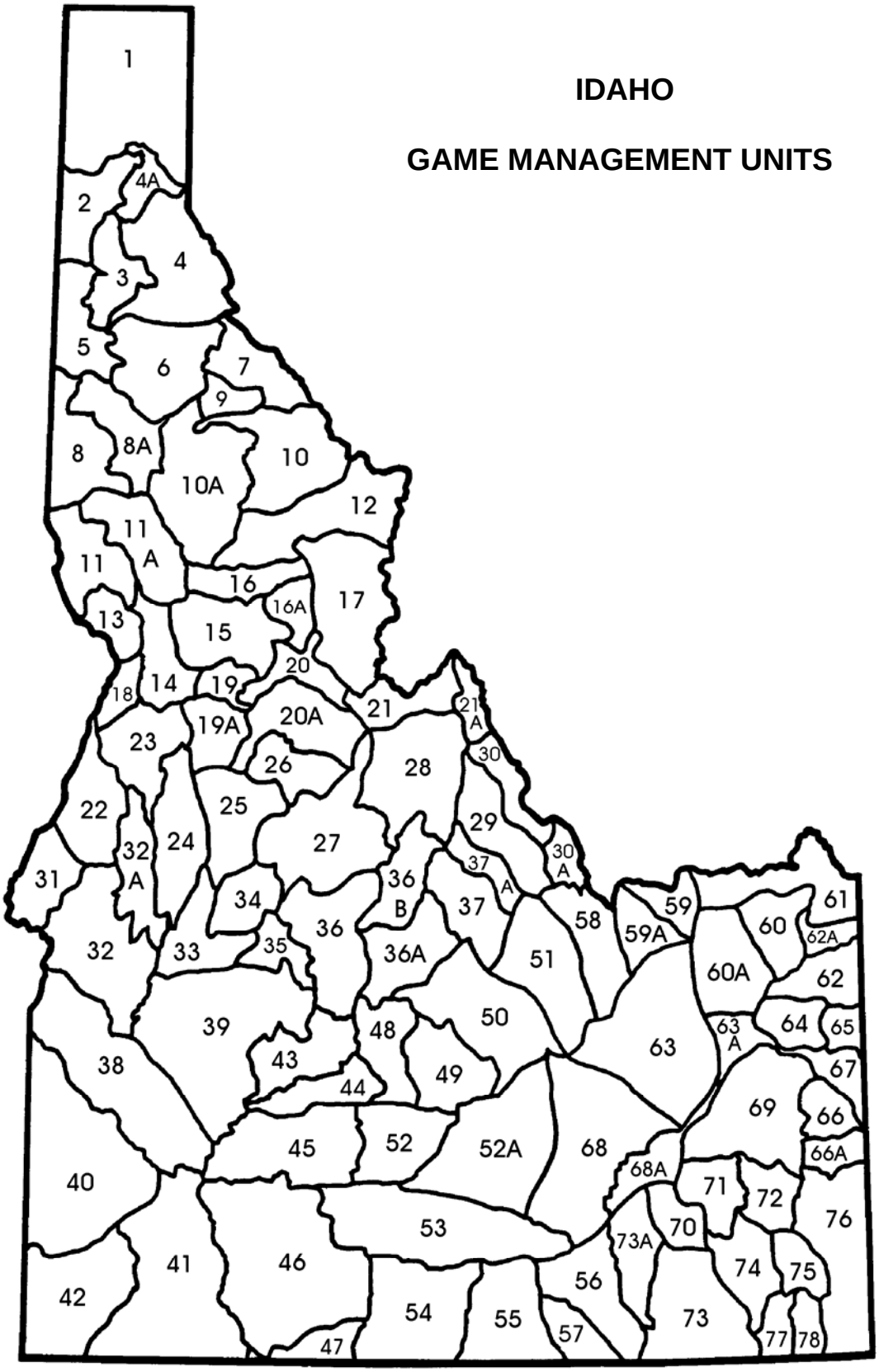
Jim Hayden	*Jay Crenshaw*	*Jon Rachael*
Regional Wildlife Manager	Regional Wildlife Manager	Regional Wildlife Manager
Jeff Rohlman	*Randy Smith*	*Carl Anderson*
Regional Wildlife Manager	Regional Wildlife Manager	Regional Wildlife Manager
Daryl Meints	*Tom Keegan*	
Regional Wildlife Manager	Regional Wildlife Manager	

Approved by: IDAHO DEPARTMENT OF FISH AND GAME

Dale E. Toweill Wildlife Program Coordinator Federal Aid Coordinator	James W. Unsworth, Chief Bureau of Wildlife

IDAHO

GAME MANAGEMENT UNITS



FEDERAL AID IN WILDLIFE RESTORATION

The Federal Aid in Wildlife Restoration Program consists of funds from a 10% to 11% manufacturer's excise tax collected from the sale of handguns, sporting rifles, shotguns, ammunition, and archery equipment. The Federal Aid program then allots the funds back to states through a formula based on each state's geographic area and the number of paid hunting license holders in the state. The Idaho Department of Fish and Game uses the funds to help restore, conserve, manage, and enhance wild birds and mammals for the public benefit. These funds are also used to educate hunters to develop the skills, knowledge, and attitudes necessary to be responsible, ethical hunters. Seventy-five percent of the funds for this project are from Federal Aid. The other 25% comes from license-generated funds.