IDAHO DEPARTMENT OF FISH AND GAME

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Surveys and Inventories

SFYFY2015/FY2016 Statewide Report

UPLAND GAME

July 1, 2014 to June 30, 2016

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TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

LIST OF TABLES

STATEWIDE

LIST OF TABLES (Continued)

LIST OF TABLES (Continued)

LIST OF TABLES (Continued)

LIST OF TABLES (Continued)

LIST OF FIGURES

SOUTHWEST REGION

STATEWIDE REPORT

SURVEYS AND INVENTORY

JOB TITLE: Upland Game Surveys and Inventories

STUDY NAME: Upland Game Population Status, Harvest, and Trends

PERIOD COVERED: July 1, 2014 to June 30, 2016

STATEWIDE

Summary

The 1991-1995 Upland Game Species Management Plan was followed during this report period. It is necessary to develop an updated plan. Three general objectives of the current plan are to:

- Increase efforts to improve habitat for upland game species, particularly through the Idaho Department of Fish and Game (Department) 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, mourning dove coo counts, hunter check stations, and wing barrel harvest data. Each region collects data using various methods based on regional bird densities and sampling constraints. Statewide, harvest 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. Since 2000, a separate survey (mail and telephone) has been conducted for sage- and sharp-tailed grouse to improve harvest estimates for these species that have been considered for listing under the federal Endangered Species Act (ESA). Starting in 2001, harvest surveys (mail and telephone) were expanded to collect regional data for all upland game species.

In 2014, the estimated harvest of pheasant was higher than 2013 estimates. However, the estimated harvest for all other upland game birds was either stable or down from 2013 estimates.

In 2014, approximately 36,700 resident hunting license buyers hunted upland game and approximately 5,000 non-resident hunting license buyers hunted upland game. This represents 13.3% of all resident hunting license buyers and 13.9% of all non-resident hunting license buyers.

In 2015, approximately 36,300 resident hunting license buyers hunted upland game and approximately 5,300 non-resident hunting license buyers hunted upland game. This represents 15.1% of all resident hunting license buyers and 13.2% of all non-resident hunting license buyers.

In 2015, the estimated harvest of most upland game bird species was higher than 2014 estimates. However, the estimated harvest of Columbian sharp-tailed grouse was similar to 2014 estimates.

Climatic Conditions

Idaho is an extremely geographically diverse state and weather patterns can vary dramatically. During winter 2013-2014, snowfall was above normal, while temperatures were near normal across the state (Joint Agricultural Weather Facility 2014a). By mid-summer, precipitation since January 1 was above normal in southwest Idaho, but below normal in northern and southeast Idaho. Spring and early summer conditions were warmer and drier than average in 2014. (Joint Agricultural Weather Facility 2014b).

During winter 2014-2015, snowfall was below normal, while temperatures were above normal across the state (Joint Agricultural Weather Facility 2015a). By mid-summer, precipitation since January 1 was below normal across Idaho. During 2015, spring and early summer conditions were warmer and drier than average in northern and eastern Idaho, while conditions were warmer and considerably wetter than average in southwest Idaho. (Joint Agricultural Weather Facility 2015b).

Trapping and Translocation

No trapping or translocation activities took place during this study period for pheasant (*Phanianus colchicus*), California quail (*Callipepla californica*), forest grouse (*Tympanuchus phasianellus*), chukar (*Alectoris chukar*), or gray partridge (*Perdix perdix*). In the Southeast Region, 99 Columbian sharp-tailed grouse were trapped and translocated to the Bull Run Basin in north-central Nevada as part of a range expansion effort.

Management Studies

Details on current upland game research are available in the annual Department research progress report.

Pheasant

Abstract

Pheasant populations have declined substantially since the 1980s, and pheasant management has intensified as a result of this decline. During Fiscal Year 2015, 28 HIP upland game bird projects were implemented on 3,463 acres in Idaho. In Fiscal Year 2016, 30 HIP upland game bird projects were implemented on 314 acres. The Department has three employees working in Natural Resources Conservation Service (NRCS) county offices as Farm Bill Coordinators. The Coordinators provide technical assistance to private landowners interested in improving fish and wildlife habitat by implementing Farm Bill conservation practices.

Season Framework

In 2014 and 2015, the opening date remained unchanged; the second Saturday in October in northern Idaho and the third Saturday in October in southern Idaho. Bag limits for pheasant (Appendix A) remained at three, but possession limits were increased to three times the daily bag, statewide. The shooting hours on opening day were changed from noon to one-half hour before sunrise in southern Idaho in 2010 (Areas 2 and 3). The number of pheasants allowed per Wildlife Management Area (WMA) pheasant permit remained at 6. The permit cost was $23.75 for the 2014 and 2015 seasons. In 2010, shooting hours on WMAs in Area 3 were changed from one-half hour before sunrise to 10 a.m. to reduce conflicts with waterfowl hunters, and to allow additional time for pheasant stocking. Youth-only pheasant seasons were held 4-10 October, 2014, and 3-9 October, 2015.

Population Surveys

Roadside counts are conducted in the Clearwater and Southwest regions. During 2014, the number of pheasants observed per mile increased considerably in the Clearwater and Southwest regions. August roadside surveys were conducted in the Magic Valley Region from 1961-2012 to monitor pheasant population trends and forecast hunting seasons. These surveys were discontinued in 2013 due to continued habitat loss and substantial declines in pheasant populations. During 2015, the number of pheasants observed per mile again increased considerably in the Clearwater Region. Pheasant abundance declined in the Southwest Region in 2015.

Harvest Characteristics

According to our statewide harvest survey, approximately 14,400 hunters harvested 50,100 pheasants in 2014 (Table 1). The estimated harvest was up from 44,400 in 2013. The average number of birds harvested per hunter day (Table 2) in 2014 (0.65) was up from 2013 (0.55). The Southwest Region had the highest harvest where approximately 7,040 hunters harvested an estimated 22,100 pheasants.

In 2015, approximately 17,500 hunters harvested 62,300 pheasants (Table 1). The estimated harvest was up 24% from 50,100 in 2013. The average number of birds harvested per hunter day (Table 2) in 2015 (0.66) was similar to 2014 (0.65). The Southwest Region had the highest harvest where approximately 6,850 hunters harvested an estimated 26,600 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; little winter cover or food remains. Early swathing of alfalfa continues to destroy many nests, especially in the Magic Valley Region. Spring and early summer conditions were warmer and drier than average across the state in 2014. In 2015, spring and early summer conditions were warmer and drier than average in northern and eastern Idaho, while conditions were warmer and considerably wetter than average in southwest Idaho.

Depredations

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

Management Implications

Pheasant populations continue to fluctuate below historic levels in Idaho. Stable populations exist in areas where Conservation Reserve Program (CRP) lands complement other available nesting and brood-rearing habitat in the Clearwater, Southwest, Magic Valley, and Southeast regions. The State has an approved CRP State Acres for Wildlife Enhancement (SAFE) in western Idaho that may enroll up to 25,000 acres of farmland. These SAFE acres are in addition to general sign-up CRP lands in these counties. Tracts enrolled in SAFE/CRP will be planted to conservation cover that will benefit pheasants. Idaho continues to have a small Conservation Reserve Enhancement Program (CREP) in south-central Idaho. The Department has three employees working in NRCS county offices as Farm Bill Coordinators. The Coordinators provide technical assistance to private landowners interested in improving fish and wildlife habitat by implementing Farm Bill conservation practices. Coordinators are working on CRP/SAFE/CREP lands and other private lands to benefit pheasants. The Department has also partnered with Pheasants Forever, to locate a shared biologist within the Pocatello NRCS field office. The primary focus of this position is to work with landowners to implement federal farm bill programs that improve habitat for mule deer and upland gamebirds.

Quail

Abstract

California quail populations have been relatively stable in recent years and continue to be a popular game bird with hunters.. Habitat Improvement Program efforts have increased to benefit quail in the Clearwater and Southwest regions. Mountain quail continue to be rare and the hunting season has been closed for them since 1984.

Season Framework

In 2014 and 2015, the season opener was returned to the third Saturday in September. The 31 January closing date in the Panhandle, Clearwater, and Southwest regions has remained unchanged. Bag limits for quail remained at 10, but possession limits were increased to three times the daily bag limit, statewide (Appendix A).

Population Surveys

Quail are counted during August brood routes in the Southwest Region. The number of birds observed per mile of route increased in the Southwest Region from 2013 to 2014, and from 2014 to 2015. Numbers were slightly below the most recent 10-year average in 2014, but slightly above average in 2015.

Harvest Characteristics

According to our statewide harvest survey, approximately 8,500 hunters harvested 67,900 quail in 2014. The estimated harvest was similar to the estimated harvest of 66,500 in 2013. The average number of birds harvested per hunter (Table 3) in 2014 (8.0) was similar to 2013 (7.9). The Southwest Region had the highest harvest where approximately 6,300 hunters harvested an estimated 50,900 quail.

In 2015, approximately 10,100 hunters harvested 82,800 quail in 2015. The estimated harvest was up from the estimated harvest of 67,900 in 2014. The average number of birds harvested per hunter (Table 3) in 2015 (8.2) was similar to 2014 (8.0). The Southwest Region had the highest harvest where approximately 6,700 hunters harvested an estimated 69,100 quail.

Quail were checked at check 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

Details on current Mountain Quail research are available in the annual Department research progress report.

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 are also available through the Continuous Conservation Reserve Program. The State has an approved CREP that may retire up to 50,000 acres of irrigated farmland in south-central and eastern Idaho. Conservation Reserve Enhancement Program lands will be planted for 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 increased declined in 2014, but rebounded in 2015 (Table 1). Management activities directed specifically toward forest grouse habitat is minimal. However, forest grouse habitat, especially ruffed grouse habitat, is being improved by aspen rejuvenation projects through the Department's Mule Deer Initiative (MDI).

Season Framework

During 2014 and 2015, forest grouse seasons remained unchanged with an opener on 30 August (Appendix A). The season runs through 31 December31 in most of the state, while it runs through 31 January in the Panhandle Region. Bag limits remained at 4, but possession limits were increased to three times the daily bag limit for the 2014 and 2015 seasons, statewide.

Population Surveys

Forest grouse population surveys were not conducted in Idaho during 2014/2015.

Harvest Characteristics

The harvest survey indicated forest grouse harvest (Table 1) decreased from 2013 (93,000) to 2014 (79,700). In 2014, similar numbers of hunters (20,400) pursued forest grouse (Table 4) to 2013 (21,100). The Southwest Region had the highest level of forest grouse harvest where approximately 9,400 hunters harvested about 25,600 forest grouse.

In 2014, harvest data for forest grouse was collected by species as well: ruffed grouse, blue grouse, and spruce grouse. Individuals unable to identify forest grouse by species reported harvest as "unknown forest grouse." Ruffed grouse hunters (13,300) spent more days hunting (90,100) and harvested more birds (44,100) than dusky (blue) grouse hunters (9,000 hunters, 56,800 days, and 25,400 birds harvested) or spruce grouse hunters (3,800 hunters, 27,600 days, and 6,500 birds harvested).

In 2015, forest grouse harvest (Table 1) increased from 2014 (79,700) to 2015 (90,900). The number of hunters (30,600) that pursued forest grouse (Table 4) increased from 2014 levels (20,400). The Southwest Region had the highest level of forest grouse harvest where approximately 6,700 hunters harvested about 21,500 forest grouse.

In 2015, harvest data for forest grouse was collected by species as well: ruffed grouse, blue grouse, and spruce grouse. Individuals unable to identify forest grouse by species reported harvest as "unknown forest grouse." Ruffed grouse hunters (15,300) spent more days hunting (103,900) and harvested more birds (57,400) than dusky (blue) grouse hunters (9,600 hunters, 60,300 days, and 21,800 birds harvested) or spruce grouse hunters (3,900 hunters, 30,400 days, and 6,500 birds harvested).

Wing data were collected incidental to check stations run for other species. Wings were also collected at wing barrels. An intensified wing barrel collection program was started in the Southwest Region in 2006.

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 MDI is

assisting private landowners in eastern Idaho to improve aspen stands for mule deer habitat. Aspen improvement projects will likely improve habitat for ruffed grouse as well.

Management Implications

With current staffing and operating resources, little additional management work on forest grouse has been 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. Wildfire frequency and the added fuel from the spread of cheatgrass and medusahead have had a negative impact on sage-grouse habitat. Frequent wildfires prevent 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 more than 80% since the early 1990s. In 1996, the Department initiated a statewide management effort to conserve sage-grouse populations in Idaho.

Season Framework

Since 2008, the Department has followed the hunting season and bag-limit guidelines in the 2006 *Conservation Plan for the Greater Sage-grouse in Idaho* (Table 5). Whereas other game bird regulations are set in the spring, the Idaho Fish and Game Commission sets the sage-grouse hunting season in August. This allows biologists sufficient time to analyze lek data and information regarding the season's wildfires and West Nile Virus (WNV) impacts. Department staff summarizes lek route data by sage-grouse Reporting Zone and compares data with the guidelines. These data are provided to regional staff and sage-grouse local working groups (LWG), who make recommendations for hunting seasons and bag limits. Following a public comment period, the recommendations are brought forward to the Commission, who sets the season structure in August. The Department then publishes and distributes the *Sage-grouse Seasons and Rules* leaflet.

Using the guidelines, the season structure and bag limits were restrictive (7 day season, 1 bird daily bag limit) statewide in 2014 and 2015, except for designated closed areas. Closed areas were Washington and Adams counties; Elmore County; and the southeastern portion of the state. Eastern Owyhee County and western Twin Falls County had been closed since the 2007 Murphy Complex Fire, but was re-opened in 2015 due to recovering populations.

Population Surveys

The Department utilizes standardized counts on about 530 leks on 78 established lek routes to monitor population trends. Other leks are counted irregularly on the ground or by helicopter. In

2014, biologists and volunteers surveyed 1,440 leks statewide. Of all leks surveyed in 2014, 674 were active, 748 were inactive, and 22 had insufficient data to determine status. In 2015, we surveyed 1,223 leks and reported 22 new potential leks. Of all leks surveyed, 597 were active, 511 were inactive, while 115 had insufficient data to determine status.

Harvest Characteristics

The Department estimates sage-grouse harvest by utilizing survey sampling in a mail-in and telephone survey of hunters who purchased a sage/sharp-tailed grouse permit validation in that year. We estimated 2,656 hunters harvested 2,400 sage-grouse in 2014, and 2,605 hunter's harvested 2,875 sage-grouse in 2015 (Tables 1 and 6). Hunter participation has been consistently around 2,600 hunters since 2011 (Table 6)

Several check stations are operated during opening weekend to gather information on hunter participation and success and to collect wings from harvested birds. The Department also collects wings in wing barrels and through a mail-in wing program. We collected 891 wings in 2014 and 1,166 wings in 2015. In general, the sample size of wings has decreased in recent years due to shortened seasons and reduced hunter participation.

Habitat Conditions

Habitat concerns continue to be a major focus for the Department and federal land management agencies. Relatively few acres (10,800 acres) of key sagebrush habitat in burned in 2014. In 2015, 166,659 acres of key sage-grouse habitat burned in 2015; 164,052 of these acres were in the Soda Fire in Owyhee County. The Soda Fire stimulated unprecedented cooperative restoration among state and federal agencies, and private landowners.

Other threats to sage-grouse habitat include: increase of noxious weeds and invasive species; continued expansion of exotic annual grasslands; loss and conversion of CRP; and proposed electrical transmission lines.

Management Implications

In July 2006, the *Conservation Plan for the Greater Sage-grouse in Idaho* was completed and signed by a diverse group of cooperators (Idaho Sage-grouse Advisory Committee 2006). This plan provides the management framework for sage-grouse in Idaho and identifies local working groups as the heart of Idaho's sage-grouse conservation strategy. In 2012, the *Federal Alternative of Governor C.L. "Butch" Otter for Greater Sage-grouse Management in Idaho* was submitted as an alternative in the BLM's EIS process for land use plan amendments. In 2015, Governor Otter signed Executive Order No. 2015-04 *Adopting Idaho's Sage-grouse Management Plan*, directing all state agencies to adopt the Governor's Alternative.

Sharp-tailed Grouse

Abstract

The largest remaining Columbian sharp-tailed grouse (*Tympanuchus phasianellus columbianus*; CSTG) populations occur in eastern Idaho. CSTG have received substantial benefits from CRP grassland habitat since the late 1980s. Translocation efforts continued during this study period. The Idaho CSTG translocation program began in 1991 with the goal of reestablishing populations of this subspecies in Idaho and other western states where suitable habitat exists.

Season Framework

The 2014 and 2015 season frameworks remained unchanged (Appendix A) with a 31-day season from 1-31 October and a bag limit at 2. The possession limit was increased to three times the daily bag limit.

Population Surveys

Lek counts were conducted in the Upper Snake, Southeast, Magic Valley, and Southwest regions. Grouse wings are collected at wing barrels and from hunters checked incidental to other management activities. Wing barrels provide a large proportion of the wings collected. Juvenile to adult ratios, obtained from wing data increased in the Southeast Region during 2014, but wings collected in 2015 suggested a significant decline in production. In the Upper Snake Region, juvenile to adult ratios decreased from 2013 to 2014, but rebounded in 2015.

Harvest Characteristics

Beginning in 2000, CSTG hunters were required to purchase a sage/sharp-tailed grouse hunting validation. This requirement provided a means to collect better harvest estimates from a sample of CSTG hunters through a telephone survey. In 2014, approximately 1,500 hunters harvested 3,500 sharp-tailed grouse (Table 1). The estimated number of hunters and harvest in 2014 were slightly lower than those reported in 2013 (Table 7). Sharp-tailed grouse hunters spent fewer days hunting (4,500) than in 2013 (5,000).

In 2015, approximately 1,600 hunters harvested 3,400 sharp-tailed grouse (Table 1). The estimated number of hunters and harvest in 2015 were similar to those reported in 2014 (Table 7). Number of days spent sharp-tailed grouse hunting in 2015 (4,600) were similar to 2014 (4,400) levels.

Habitat Conditions

The CRP program continues to provide habitat for CSTG in Idaho. The Department continues to work with landowners to plant enhanced grass/forb mixes and improve stands by planting forbs, legumes, and shrubs in existing/reenrolled CRP land throughout the state. Many of the projects are in sharp-tailed grouse range and will improve grouse habitat. The Department had an

allocation of 137,300 acres to enroll in CRP-SAFE in 2015, and 147,300 acres to enroll in 2016. Efforts to maintain or increase habitat for CTSG in Idaho are ongoing.

Trapping and Translocation

Since 1991, the Department has trapped CSTG 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 1991-2012, 1,405 CSTG (851 males, 554 females) were trapped in southeast Idaho for reintroduction projects in Idaho, Oregon, Washington, and Nevada. Six hundred six grouse were released in the Shoshone Basin and House Creek areas, Twin Falls County, Idaho, and 765 birds were provided to the other states. During 2015 and 2016, the Department translocated 99 CSTG from southeast Idaho to Bull Run Basin, in north-central Nevada, as part of a range expansion effort.

Management Studies

During 2011, a graduate student began a project to evaluate methods to improve population monitoring of Columbian sharp-tailed grouse and assess vital rates on CRP lands.

Details on current sharp-tailed grouse research are available in the annual Department research progress report.

Management Implications

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

Chukar

Abstract

Estimated chukar harvest in 2014 was the lowest on record (1986-2014). Populations rebounded in fall 2015.

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 three areas with closing dates of 31 December, 15 January, and 31 January, for the 2004 and 2005 seasons. A closing date of 31 January was applied statewide for the 2006 season. In 2011, the season opener was moved from the third Saturday in September to 1 October, and the bag and possession limits were reduced to 6 and 12, respectively. In 2012, the season opener was returned to the third Saturday in September and the 31 January closing date remained unchanged. In 2014, bag limits for chukar remained at 8, but

possession limits were increased to three times the daily bag limit, statewide (Appendix A). The chukar season runs concurrent with the quail and gray partridge seasons.

Population Surveys

During 2010, two helicopter crashes occurred with Department personnel on board. In one instance, the pilot and both passengers sustained serious injuries, and in the other the pilot and both passengers were fatally injured. As a result, the Department conducted a flight safety review during which needs/risk assessment were completed. As a result, aerial chukar counts were discontinued in 2011.

Harvest Characteristics

In 2014, hunters harvested an estimated 33,700 chukars (Table 1). The number of hunters (Table 8) during 2014 (8,000) was slightly lower than 2013 (8,400). Hunters spent fewer days hunting (41,500 vs. 49,100), and harvested fewer birds (33,700 vs. 48,000) in 2014 than in 2013. The estimated harvest during the 2014 season was the lowest on record during the 1986-2014 time period. Southwest Region hunters (4,600) harvested overwhelmingly more chukars (23,500; 58% of statewide harvest) than any other region.

In 2015, hunters harvested an estimated 48,600 chukars (Table 1). The number of hunters (Table 8) during 2015 (8,900) was higher than 2014 (8,000). Hunters spent more days hunting (53,000 vs. 41,500), and harvested more birds (48,600 vs. 33,700) in 2015 than in 2014. Southwest Region hunters (5,900) harvested overwhelmingly more chukars (33,200; 68% of statewide harvest) than any other region.

Habitat Conditions

Spring and early summer conditions were warmer and drier than average across the state in 2014. In 2015, spring and early summer conditions were warmer and drier than average in northern and eastern Idaho, while conditions were warmer and considerably wetter than average in southwest Idaho. Most chukar habitat occurs on public lands and is affected mostly by weather, livestock grazing, or wildfire.

Management Implications

Prior to 2007, chukar harvest estimates had 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; however, due to public input, the Commission reduced the season length and limits in 2011. Density-dependent hunting pressure is well documented in upland game populations (George et al. 1980, Vance and Ellis 1972, Kabat and Thompson 1963, Galliziolli and Swank 1958, Bennitt 1951). In fact, Robinson et al. (2009) report that hunter harvest accounted for only 8% of documented chukar mortality in Utah.

Gray Partridge

Abstract

Estimated gray partridge harvest in 2014 was lower than in 2013, but rebounded during fall 2015 (Table 9). Habitat Improvement Program efforts and CRP will work 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 three areas with closing dates of 31 December, 15 January, and 31 January, for the 2004 and 2005 seasons. A closing date of 31 January was applied statewide for the 2006 season. In 2011, the season opener was moved from the third Saturday in September to 1 October, and the bag and possession limits were reduced to 6 and 12, respectively. In 2012, the season opener was returned to the third Saturday in September and the 31 January closing date remained unchanged. In 2014, bag limits for gray partridge remained at 8, but possession limits were increased to three times the daily bag limit, statewide (Appendix A). The gray partridge season runs concurrent with the quail and chukar seasons.

Population Surveys

Gray partridge observations are recorded during August roadside survey routes. 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

In 2014, hunters harvested an estimated 20,800 gray partridge, which was the third lowest harvest recorded since 1986 (Table 1). More hunters (Table 9) pursued gray partridge during 2014 (6,100) than in 2013 (5,700). Hunters in the Magic Valley Region (2,100) harvested more gray partridge (5,900; 28% of statewide harvest) than any other region.

In 2015, hunters harvested an estimated 25,400 gray partridge (Table 1). More hunters (Table 9) pursued gray partridge during 2015 (6,600) than in 2014 (6,100). Hunters in the Southwest Region (2,200) harvested more gray partridge (10,200; 40% of statewide harvest) than any other region.

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. Habitat Improvement Program activities continue to improve gray partridge habitat in many parts of the state, especially in areas with large acreage of CRP.

Spring and early summer conditions were warmer and drier than average across the state in 2014. In 2015, spring and early summer conditions were warmer and drier than average in northern and eastern Idaho, while conditions were warmer and considerably wetter than average in southwest Idaho. A substantial portion of gray partridge habitat occurs on public lands and is affected mostly by weather, livestock grazing, or wildfire.

Management Implications

Gray partridge will continue to be a species with relatively little active management. Habitat Improvement Program activities will continue to enhance habitat, primarily in agricultural areas. The State has an approved CREP that may retire up to 50,000 acres of irrigated farmland in south-central and eastern Idaho. CREP lands will be planted to conservation cover that should benefit gray partridge. The Department has three employees working in NRCS county offices as Farm Bill Coordinators. The Coordinators provide technical assistance to private landowners interested in improving fish and wildlife habitat by implementing Farm Bill conservation practices. The Department has also partnered with Pheasants Forever, to locate a shared biologist within the Pocatello NRCS field office. The primary focus of this position is to work with landowners to implement federal farm bill programs that improve habitat for mule deer and upland gamebirds.

Wild Turkey

Abstract

In Idaho, most suitable wild turkey habitat has been stocked and populations seem to have stabilized during recent years. Estimated harvest during this reporting period was higher in both spring and fall hunts (Table 1). Turkeys are trapped and translocated during winter to address nuisance and depredation concerns.

Season Framework

Spring general hunts were offered in the Panhandle, Clearwater, Southwest, and Southeast regions during 2015 and 2016 (Appendix A). Spring controlled hunts were offered in the Southwest, Magic Valley, Southeast, Upper Snake, and Salmon regions. A fall general season was offered in the Panhandle and Clearwater regions. An early, seven-day general season youth-only hunt was offered in Game Management Units (GMU) open to general season turkey hunting from April 8-14. In addition, up to three Special Unit Tags were issued for use in GMUs 1, 2, 3, and 5 to curb the turkey population in the Panhandle Region. The bag limit was six turkeys during the year with no more than two bearded turkeys per spring. The waiting period for use of the extra tag in spring was eliminated in 2010.

Population Surveys

No formal surveys were conducted.

Harvest Characteristics

Hunters harvested (Table 1) more turkeys during 2014 seasons (5,606) than during 2013 (4,918) seasons. Harvest surveys indicated 3,264 and 1,842 turkeys were harvested during general spring and fall hunts, respectively (Table 10). Hunters harvested 271 and 184 turkeys during spring and fall controlled hunts, respectively.

Hunters harvested (Table 1) more turkeys during 2015 seasons (6,684) than during 2014 (5,606) seasons. Harvest surveys indicated 3,685 and 2,503 turkeys were harvested during general spring and fall hunts, respectively (Table 10). Hunters harvested 309 and 187 turkeys during spring and fall controlled hunts, respectively. Statewide harvest is concentrated in the Panhandle, Clearwater, and Southwest regions.

Check stations for wild turkey harvest are not conducted in Idaho.

Trapping and Translocation

Turkeys were trapped and translocated in the Clearwater, Magic Valley, Southeast, and Salmon regions during this reporting period (Table 11).

Management Implications

Liberal hunting seasons, trap and translocate, kill permits, and habitat improvement projects were used to address turkey nuisance and depredation concerns. Interest in hunting this species continues to grow.

Mourning Dove

Abstract

Mourning doves (*Zenaida macroura*) continue to be a popular early-season species for hunting.

Season Framework

The 2014 and 2015 season frameworks remained unchanged from 2013 (Appendix A). Daily bag limits remained at 10, but possession limits were increased to three times the daily bag limit, statewide.

Population Surveys

In 2013, the USFWS approved a new harvest strategy that uses the Lincoln estimator (Lincoln 1930, Otis 2006) as the primary monitoring method for mourning dove abundance (USFWS 2015). As a result, mourning dove coo-count surveys were discontinued. However, with a Lincoln estimator, when abundance falls below the closure threshold set in the harvest strategy and a hunting season closure is implemented, no data to monitor abundance is available. Thus, determining when a hunting season could be re-opened is problematic, since the monitoring data

to estimate abundance are not available. Consequently, the development and evaluation of an additional robust estimator for use during a closed season is required to determine when abundance exceeds the closure threshold.

During 2015 and 2016, Department personnel participated in the *Modified Call-count Survey with Distance Sampling: A Pilot Study to Estimate the Abundance of Mourning Doves in the United States*. Modified call-count surveys were conducted in the Clearwater, Southwest, Magic Valley, and Upper Snake regions.

Harvest Characteristics

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

Trapping and Banding

Because mourning dove coo-count surveys are no longer conducted, banding doves has become increasingly more important. The mourning dove banding quota for Idaho is 633 doves. Since 2003, Idaho has participated in a Pacific Flyway-wide effort to trap and band mourning doves. In 2014, 808 doves were banded, and 795 were banded in 2015, (Table 12). Since 2003, 8,434 mourning doves have been banded in Idaho.

Management Implications

In 1987, the federal season framework reduced the maximum allowable season length to 30 days and maximum daily bag limit to 10. The possession limit was increased to three times the daily bag limit in 2014. Hunting season regulations in Idaho have since reflected those changes.

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 (*Brachylagus idahoensis)* was closed in 2002 due to concerns about low pygmy rabbit populations. Season openers for cottontail rabbits and snowshoe hares (*Lepus americanus*) were changed to 30 August in 2012 to match up with the forest grouse opener (Appendix A).

Harvest Characteristics

In 2014, approximately 2,300 hunters harvested 9,700 rabbits (Table 13). An estimated 880 hunters harvested approximately 1,400 snowshoe hares. In 2015, approximately 4,400 hunters

harvested 21,600 rabbits. An estimated 380 hunters harvested approximately 570 snowshoe hares.

Management Implications

Cottontail and snowshoe hare will continue to be a species with no active management in Idaho. Recreational opportunity greatly exceeds demand.

American Crow

Season Framework

Unchanged from 2006 (Appendix A).

Harvest Characteristics

Insufficient data is collected from the telephone survey to allow an estimate of American crow (*Corvus brachyrhynchos*) 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, 2006-present.

Year	Pheasant	Forest grouse	Gray partridge	Chukar	Quail	Sage-grouse	Sharp-tailed grouse	Turkey
2006	99,300	129,800	55,000	108,900	157,200	12,500	6,900	5,610
2007	91,600	113,400	29,100	46,900	112,100	4,900	4,900	5,100
2008	98,400	68,900	16,800	59,400	93,500	7,700	5,000	5,200
2009	67,600	93,200	29,400	71,100	83,100	7,200	5,600	6,100
2010	64,400	66,800	48,000	57,100	83,100	4,100	6,100	4,900
2011	63,200	72,000	45,800	78,600	85,300	2,100	2,900	5,400
2012	66,800	87,700	43,400	53,800	117,200	2,500	4,600	5,034
2013	44,400	93,000	28,300	48,000	66,500	2,400	3,700	4,926
2014	50,100	79,700	20,800	33,700	67,900	2,400	3,500	5,058
2015	62,300	90,900	25,400	48,600	82,800	2,900	3,400	5,620
10-year average	70,800	89,500	34,900	60,600	94,900	4,900	4,700	52,948

Table 2. Season framework, estimated pheasant hunter numbers, and harvest in Idaho, 2006-present.

Year	Season (days)[a]	Daily bag[a]	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2006	72	3	30,000	99,300	146,900	3.4	0.7
2007	73	3	25,200	91,600	134,900	3.6	0.7
2008	75	3	23,700	98,400	121,200	4.2	0.8
2009	76	3	20,100	67,600	110,100	3.4	0.6
2010	77	3	20,700	64,400	107,700	3.1	0.6
2011	76	3	20,500	63,200	120,600	3.1	0.5
2012	76	3	19,400	66,800	99,500	3.4	0.7
2013	73	3	17,500	44,400	80,700	2.5	0.6
2014	75	3	14,400	50,100	77,200	3.5	0.7
2015	76	3	17,500	62,300	94,100	3.6	0.7
10-year average			20,900	70,800	109,300	3.4	0.6

[a] Season length and bag in southwestern Idaho where the majority of pheasant hunting occurs.

Table 3. Season framework, estimated quail hunter numbers, and harvest in Idaho, 2006-present.

Year	Season (days)[a]	Daily bag[a]	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2006	138	10	13,000	157,200	86,000	12.1	1.8
2007	139	10	11,700	112,100	66,100	9.6	1.7
2008	134	10	11,600	93,500	69,900	8.1	1.3
2009	135	10	10,100	83,100	49,800	8.3	1.7
2010	136	10	10,000	83,100	52,800	8.3	1.6
2011[b]	123	10	9,300	85,300	54,600	9.2	1.6
2012	139	10	10,014	117,184	52,725	11.7	2.2
2013	133	10	8,200	66,500	45,100	7.9	1.5
2014	134	10	8,500	67,900	43,900	8.0	1.6
2015	135	10	10,100	82,800	55,000	8.2	1.5
10-year average			10,300	94,900	57,600	9.1	1.6

[a] Season length and bag in Canyon County.
[b] Season opener was 1 October in 2011.

Table 4. Season framework, estimated forest grouse hunter numbers, and harvest in Idaho, 2006-present.

Year	Season (days)[a]	Daily bag[a]	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2006	122	4	36,900	129,800	251,300	3.5	0.5
2007	122	4	25,400	113,400	212,200	4.5	0.5
2008	122	4	21,500	68,900	192,500	3.2	0.4
2009	122	4	23,300	93,200	207,800	4.0	0.5
2010[b]	124	4	20,100	66,800	163,900	3.3	0.4
2011	124	4	21,700	72,000	186,900	3.3	0.4
2012	124	4	20,711	87,700	191,700	4.2	0.5
2013	124	4	21,100	93,000	198,000	4.4	0.5
2014	124	4	20,400	79,700	187,700	3.9	0.4
2015	124	4	30,600	90,900	203,400	3.0	0.5
10-year average			24,200	89,500	195,500	3.7	0.5

[a] Season length and bag in southwestern Idaho where the majority of forest grouse hunting occurs.
[b] Season opener was moved to 30 August in 2010.

Table 5. Idaho hunting season and bag-limit guidelines for sage-grouse populations[a.]

Option	3-year running average of lek counts	Days	Daily Bag
Closed	• Less than 100 males observed • Lek counts are less than 50% of 1996–2000 average counts • Lek data are not gathered for population	0	0
Restrictive	• Lek counts are between 50% and 150% of the 1996–2000 average	7	1
Standard	• Lek counts exceed 150% of the 1996–2000 average	23	2

[a] From Idaho Sage-grouse Advisory Committee 2006; Table 4-14, page 4-122.

Table 6. Season framework, estimated greater sage-grouse hunter numbers, and harvest in Idaho, 2006-present.

Year	Season (days)	Daily bag	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2006	7	1	8,900	12,500	18,000	1.4	0.7
2007	7	1	4,700	4,940	9,800	1.0	0.5
2008	23	2	5,000	7,700	12,200	1.5	0.6
2009	23	2	4,400	7,200	9,700	1.6	0.7
2010	7	1	3,500	4,100	7,000	1.2	0.6
2011	7	1	2,700	2,100	5,000	0.8	0.4
2012	7	1	2,600	2,600	4,900	1.0	0.5
2013	7	1	2,800	2,400	5,300	0.9	0. 5
2014	7	1	2,700	2,400	5,200	0.9	0.5
2015	7	1	2,600	2,900	5,400	1.1	0.5
10-year average			4,500	5,600	9,400	1.1	0.6

Table 7. Season framework, estimated sharp-tailed grouse hunter numbers, and harvest in Idaho, 2006-present.

Year	Season (days)[a]	Daily bag[a]	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2006	31	2	3,000	6,900	8,300	2.3	0.8
2007	31	2	2,200	4,900	6,100	2.3	0.8
2008	31	2	2,300	5,000	6,900	2.2	0.7
2009	31	2	2,200	5,600	6,300	2.5	0.9
2010	31	2	2,000	6,100	6,400	2.3	0.8
2011	31	2	1,800	2,900	4,400	1.6	0.6
2012	31	2	1,800	4,600	5,400	2.6	0.9
2013	31	2	1,700	3,700	5,000	2.2	0.7
2014	31	2	1,500	3,500	4,500	2.3	0.8
2015	31	2	1,600	3,400	4,600	2.1	0.7
10-year average			2,000	4,800	6,000	2.3	0.8

[a] Season length and bag in Fremont County.

Table 8. Season framework, estimated chukar hunter numbers, and harvest in Idaho, 2006-present.

Year	Season (days)[a]	Daily bag[a]	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2006	138	8	15,100	108,900	65,700	7.2	1.7
2007	139	8	11,300	46,900	44,900	4.2	1.1
2008	134	8	9,300	59,400	57,500	6.4	1.03
2009	135	8	8,700	71,100	45,900	8.2	1.6
2010	136	8	10,000	57,100	43,900	5.7	1.3
2011[b]	123	6	9,200	78,600	61,200	8.5	1.3
2012	139	8	10,400	53,800	47,300	5.2	1.1
2013	133	8	8,400	48,000	49,100	5.7	1.0
2014	134	8	8,000	33,700	41,500	4.2	0.9
2015	135	8	8,900	48,600	53,600	5.5	0.9
10-year average			9,900	60,600	51,100	6.1	1.2

[a] Season length and bag in Canyon County.
[b] Season opener was 1 October in 2011.

Table 9. Season framework, estimated gray partridge hunter numbers, and harvest in Idaho, 2006-present.

Year	Season (days)[a]	Daily bag[a]	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2006	138	8	8,500	55,100	50,100	6.4	1.1
2007	139	8	6,600	29,100	36,000	4.4	0.8
2008	134	8	5,900	16,800	29,900	2.9	0.5
2009	135	8	6,500	29,400	45,800	4.5	0.6
2010	136	8	8,700	48,000	56,700	5.5	0.9
2011[b]	123	6	6,900	45,800	53,000	6.7	0.9
2012	139	8	7,800	43,400	44,700	5.5	1.0
2013	133	8	5,700	28,300	36,600	5.0	0.8
2015	134	8	6,100	20,800	37,000	3.4	0.6
2015	135	8	6,600	25,400	42,300	3.9	0.6
10-year average			6,900	34,200	43,200	4.8	0.8

[a] Season length and bag in Canyon County.
[b] Season opener was 1 October in 2011.

Table 10. Season framework and estimated turkey harvest in Idaho, 2006-present.

	General season framework			General season harvest			Controlled hunts			Total	Total
Year	Spring	Fall	Bag	Spring	Fall	Total	Hunts	Permits	Harvest	harvest	tags sold
2006	4/15-5/25	9/15-12/31	3	3,663	1,797	5,460	14	540	150	5,610	31,089
2007	4/15-5/25	9/15-12/31	6[a]	3,881	1,020	4,901	14	478	200	5,101	34,575
2008	4/15-5/25	9/15-12/31	6	2,783	2,080	4,863	19[b]	953	379	5,242	32,500
2009	4/15-5/25	9/15-12/31	6	3,265	2,434	5,699	19	883	381	6,080	31,725
2010[d]	4/15-5/25	9/15-12/31	6	3,003	1,469	4,472	20[c]	1,078	377	4,849	33,470
2011	4/15-5/25	9/15-12/31	6	3,231	1,439	4,670	20	1,078	352	5,350	32,166
2012	4/15-5/25	9/15-12/31	6	3,165	1,310	4,475	20	1,161	410	4,885	31,422
2013	4/15-5/25	9/15-12/31	6	2,794	1,650	4,444	23	1,273	474	4,918	30,163
2014	4/15-5/25	9/15-12/31	6	3,264	1,842	5,106	23	1,337	500	5,606	31,905
2015	4/15-5/25	9/15-12/31	6	3,685	2,503	6,188	23	1,337	496	6,684	33,976
10-year average				3,262	1,760	5,021	14	829	309	5,388	32,299

[a] Special Unit Tags initiated in Fall 2007; three extra tags available in GMUs 1, 2, 3, and 5.
[b] Three spring hunts and three fall hunts were added in 2008.
[c] One fall hunt was added in 2010.
[d] The waiting period for use of the extra tag in spring was eliminated

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Table 11. Turkey translocation history for Idaho, 2006-present.

Year	Sub-species[a]	Release site	Source	Birds released
2006	M	GMUs 1, 4A, 11, 39	GMU 1	220
2007	R	GMU 38 Little Banks Island	Washington	34
		GMU 39 Bender, Cottonwood,	GMU 1	99
	M	Willow		
	R	GMU 54 Green Creek	GMU 54	17
	M	Utah	GMU1	24
		GMU 11 Benton Meadows, Eagle	GMU 1	130
	M	Creek		
	H	GMU 15 Brown Creek	GMU 14	22
	M	GMU 1	GMU 1	45
2008	M	GMU 1	GMU 1	40
	H	GMU 11A	GMU 15	16
	H	GMU 15	GMU 11A	20
	H	GMU 15	GMU 15	14
	M	GMUs 22, 31 Andrus WMA	GMU 1	157
	R	GMU 32 Montour WMA	Oregon	32
	R	GMUs 32, 38	GMU 54	23
	R	GMU 54 Green Creek	GMU 54	64
	M	GMU 68A	GMU 1	82
2009	H	GMU 1	GMU 1	23
	H	GMU 31	GMU 1	156
	R	GMU 54	GMU 54	21
2010	H	GMU 31	GMU 1	75
2011	H	GMU 11	GMU 11	37
	H	GMU 14	GMU 11A	8
	H	GMU 15	GMU 11A	7
2012[c]				
2013	H	GMU 68A		18
2014				
2015	R	GMU 41	GMU 54	15
	H	GMU 21A	GMU 77	62
2016	H	GMU 15	GMU 13	99
	U	GMU21A		70
Total				1,630

[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.
[c] No translocation during year.

Table 12. Mourning doves banded in Idaho, 2006-present.

Year	Adult Male	Adult Female	Unknown	Hatch Year	Unknown	Total
2006	352	106	23	270	3	754
2007	242	91	20	309	35	697
2008	274	115	34	216	9	648
2009	191	75	20	252	1	539
2010	174	78	32	169	12	465
2011	163	74	25	93	3	359
2012	236	105	44	292	22	699
2013	213	99	28	184	3	527
2014	333	141	34	291	8	807
2015	331	141	39	266	18	795
Total	2,509	1,025	299	2,342	114	6,290

Table 13. Estimated cottontail rabbit and snowshoe hare harvest in Idaho, 2006-present.

	Cottontail rabbit		Snowshoe hare	
Year	Hunters	Cottontails harvested	Hunters	Hares harvested
2006	3,800	20,900	730	600
2007	3,030	19,100	710	2,730
2008	2,800	11,400	600	400
2009	2,300	9,100	600	1,100
2010	3,700	21,600	600	1,100
2011	2,100	5,500	700	2,300
2012	2,800	11,300	988	3,363
2013	1,700	4,200	640	480
2014	2,300	9,700	880	1,400
2015	4,400	21,600	380	570
10-year average	2,900	13,400	680	1,400

PANHANDLE REGION

Trapping and Translocation

No Department trapping or translocation took place in the Panhandle Region for pheasant, forest grouse, sage-grouse, sharp-tailed grouse, quail, chukar, gray partridge, mourning dove and wild turkey 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 Coeur d'Alene River WMA near Harrison remained the only place available to release birds. In 1981, the region recommended all pheasant releases be discontinued and the program was eliminated effective fall 1982.

Harvest Characteristics

Most pheasant hunting in the 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 harvest survey of 2014 upland game hunters estimated that 182 hunters harvested 246 pheasants (Table 1). In 2015, 886 hunters harvested 1,488 pheasants (Table 1). Because pheasant hunting effort and reporting rate are low, harvest estimates are imprecise and may be misleading.

Management Implications

The quality and quantity of pheasant habitat in the Panhandle Region has declined to a low point due to modern clean farming techniques and monoculture crops. The Department no longer supplements the wild population, nor releases birds directly for harvest. Despite a change from large-scale field burning of seed-bluegrass fields in the Palouse, there has not been an increase in pheasants. This is likely due to the continuation of clean farming and monoculture crops.

Quail

Abstract

Quail in the 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 because annual snowfall and cool, wet springs reduce chick survival. Quail survival improves in years with minimal snow accumulation.

Harvest Characteristics

Quail hunting effort in the Panhandle Region is very low. Harvest information obtained from the statewide harvest survey indicates an estimated 84 quail hunters harvested 48 quail during 2014 (Table 2). In 2015, 634 hunters harvested 1,818 quail (Table 2). Because quail hunting effort and reporting rate are low, harvest estimates are imprecise and may be misleading.

Management Implications

As a result of a series of mild winters and higher quail populations, the 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 three species of forest grouse are usually taken incidental to other activities and usually in conjunction with driving roads.

Harvest Characteristics

A harvest survey of 2014 upland game hunters estimated that 4,239 hunters harvested 12,774 forest grouse (Table 3). In 2015, 4,291 hunters harvested 19,005 forest grouse (Table 3). The trend in harvest indicates a decline in forest grouse hunting since 1983. Of the forest grouse harvested during 2014 and 2015, approximately 69% were ruffed grouse, 17% dusky grouse, and 4% spruce grouse (Table 4).

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 two decades has likely been detrimental to grouse populations in the Panhandle, particularly for ruffed and dusky 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 the Panhandle Region are associated with agricultural lands near Worley, Plummer, Harrison, and Post Falls. Despite a change from large-scale field burning of seed-bluegrass fields in the Palouse, there has not been an increase in gray partridge. 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 harvest survey is believed to reflect, almost entirely, Panhandle Region hunters hunting in other regions. Harvest information obtained from the statewide harvest survey indicates an estimated 54 gray partridge hunter's harvested 1 bird during 2014 (Table 5). In 2015, 253 hunters harvested 433 gray partridge. Because gray partridge hunting effort and reporting rate are low, harvest estimates are imprecise and may be misleading.

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

Turkey hunting in the Panhandle has benefitted from two mild winters. Hunter participation and harvest rate are relatively high and stable. Turkeys are wide-spread throughout the Panhandle.

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. There were no wild turkeys trapped during the 2014-2015 or 2015-2016 winters.

Management Implications

A series of mild winters have allowed the growth and spread of turkey populations throughout northern Idaho. Efforts to curb the turkey population through issuance of three extra fall turkeys in the bag was apparently successful, increasing harvest, and delaying the time when birds moved into problem situations. Turkey populations appear relatively stable. Harvest will continue to be encouraged to keep depredation problems at manageable levels.

Mourning Dove

Population Surveys

Mourning doves are common, in low numbers, in the Panhandle. Most mourning doves are found during summer around agricultural lands near Worley, Plummer, Harrison, Post Falls, and Bonners Ferry.

No dove routes were conducted in 2014 or 2015. The state is evaluating a new survey route technique and no routes were selected in the Panhandle.

Harvest Characteristics

In north Idaho, most mourning doves leave before the season opens. The season opener (1 Sep) 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 USFWS harvest survey. No regional 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 present throughout coniferous forests in the Panhandle Region. Hare densities are considered to be low compared to other, more traditional hare habitats at higher latitudes. Hare densities within the Panhandle Region vary widely dependent upon habitat types and timber harvest.

Snowshoe hare hunting effort in Panhandle Region is generally low but more people participated in snowshoe hunting in 2014. Harvest information obtained from the statewide harvest survey indicates an estimated 358 hunters harvested 791 hares during 2014 (Table 8). In 2015, 106 hunters harvested 133 snowshoe hare. Because snowshoe hare hunting effort and reporting rate are low, harvest estimates are imprecise and may be misleading.

Management Implications

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

American Crow

The American crow continues to be a species with minimal active management.

Table 1. Estimated pheasant harvest, Panhandle Region, 2006-present.

Year	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2006	577	1,078	1,720	1.9	0.6
2007	890	2,416	3,443	2.4	0.7
2008	685	1,890	3,028	2.8	0.8
2009	666	3,318	5,827	4.9	0.6
2010	450	1,232	2,555	5.7	0.5
2011	530	1,189	2,116	2.2	0.6
2012	610	959	2,026	1.6	0.5
2013	361	234	992	0.6	0.2
2014	182	246	562	1.1	0.4
2015	886	1,488	2,672	1.7	0.6
3-year avg.	476	646	1,409	1.4	0.5

Table 2. Estimated quail harvest, Panhandle Region, 2006-present.

Year	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2006	231	281	458	1.2	0.6
2007	321	484	1,326	1.5	0.4
2008	499	2,075	2,585	4.2	0.8
2009	326	2,936	2,572	9.0	1.1
2010	246	679	1,463	2.8	0.5
2011	356	2,013	1,688	5.7	1.2
2012	214	1,281	687	6.0	1.9
2013	247	972	448	3.9	2.2
2014	84	48	253	0.6	0.2
2015	634	1,818	1,711	2.9	1.1
3-year avg.	322	946	804	2.9	1.2

Table 3. Estimated forest grouse harvest, Panhandle Region, 2006-present.

Year	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2006	7,938	40,064	68,884	5.0	0.6
2007	4,847	16,715	33,465	3.4	0.5
2008	4,074	12,309	44,437	3.0	0.3
2009	4,285	18,537	41,014	4.3	0.5
2010	3,708	10,927	39,021	3.0	0.3
2011	5,260	17,336	46,848	3.3	0.4
2012	5,260	7,717	29,318	1.5	0.3
2013	6,400	17,932	41,689	2.8	0.4
2014	4,239	12,744	37,948	3.0	0.4
2015	4,291	19,005	53,717	4.4	0.4
3-year avg.	4,977	16,570	44,451	3.3	0.4

Table 4. Relative contribution of grouse species to the forest grouse harvest in the Panhandle Region, 2014/2015.

Species	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
Ruffed grouse	5,662	22,179	51,491	3.9	0.4
Dusky grouse	2,355	5,317	22,938	2.3	0.2
Spruce grouse	1,173	1,252	13,096	1.8	0.1
Unknown forest grouse	1,533	3,030	4,140	1.9	0.7
Combined	10,723	31,788	91,665	3.0	0.3

Table 5. Estimated gray partridge harvest, Panhandle Region, 2006-present.

Year	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2006	72	165	383	2.3	0.4
2007	40	232	126	5.8	1.8
2008	273	314	1,153	1.2	0.3
2009	457	3,289	6,303	7.2	0.5
2010	191	438	1,097	2.3	0.4
2011	97	6	366	0.1	0.0
2012	127	1,260	547	9.9	2.3
2013	11	4	82	0.4	0.1
2014	54	1	167	0.0	0.0
2015	253	433	855	1.7	0.5
3-year avg.	106	146	368	1.4	0.4

Table 6. Estimated turkey harvest, Panhandle Region, 2006-present.

Year Hunt	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
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
2006						
General Spring[c]	1		2,998	934	10.7	10,000
General Fall	1		1,705	799	11.0	7,248
2007						
General Spring[c]	1		3,456	1,143	12.2	13,967
General Fall	1		2,663	1,409	6.0	8,488
2008						
General Spring[c]	1		2,653	723	12.1	8,720
General Fall	1		2,566	1,041	10.4	10,796
2009						
General Spring[c]	1		2,926	668	14.9	10,005
General Fall	1		2,394	1,217	8.6	10,526
2010						
General Spring[c]	1		2,926	668	15.0	10,05
General Fall	1		1,952	791	11.6	9,195
2011						
General Spring[c]	1		2,950	790	12.9	10,195
General Fall	1		2,340	1,047	9.6	10,013
2012						
General Spring[c]	1		3,009	772	14.6	11,266
General Fall	1		2,466	1,162	4.3	10,570
2013						
General Spring[c]	1		2,518	836	9.5	7,910
General Fall	1		2,602	1,124	9.2	10,350
2014						
General Spring	1		2,611	799	11.5	9,197
General Fall			1,947	829	8.8	7,324
2015						
General Spring[c]	1		2,757	905	11.3	10,243
General Fall	1		2,238	1,070	7.7	8,267

[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 7. Mourning dove call-count survey results, Panhandle Region, 2006-present.

Year	Routes (miles) counted	Doves heard	Doves seen	Doves heard/mile	Doves seen/mile
2006	2 (40)	12	12	0.3	0.3
2007	2 (40)	16	15	0.4	0.4
2008	2 (40)	16	14	0.4	0.4
2009	1 (20)	3	0	0.6	0.0
2010	2 (40)	15	16	0.4	0.4
2011	1 (20)[a]	2	0	0.1	0.0
2012	1 (20) [a]	1	0	0.1	0.0
2013	1 (20)	14	11	0.7	0.6
2014	None	n/a	n/a	n/a	n/a
2015	None	n/a	n/a	n/a	n/a
10-year average		8.6	7.2	0.4	0.2

[a] The information from the second route (Kootenai County) was unavailable for this report.

Table 8. Estimated snowshoe hare harvest, Panhandle Region, 2006-present.

Year	Hunters	Hares harvested	Days hunted	Hares per hunter	Hares per hunter day
2006	164	133	856	0.8	0.2
2007	96	155	692	1.6	0.2
2008	178	110	1,356	0.6	0.1
2009	118	524	2,587	4.4	0.2
2010	98	131	682	1.3	0.2
2011	86	0	430	0.0	0.0
2012	189	351	1,919	1.9	0.2
2013	123	228	648	1.9	0.4
2014	358	791	3,300	2.2	0.2
2015	106	133	355	1.3	0.4
3-year average	196	384	1,434	2.0	0.3

CLEARWATER REGION

Trapping and Translocation

No trapping or translocation took place in the Clearwater Region for pheasant, California quail, forest grouse, sharp-tailed grouse, chukar, or gray partridge during the reporting period. Turkeys were last translocated within the region in early 2016 in response to depredation complaints (Table 9).

Pheasant

Population Surveys

In 1990, 11 brood routes were established in the Clearwater Region, with primary emphasis directed at better monitoring of pheasant population trends. A twelfth route was added in 201. These data provide an index of relative abundance and are used to monitor annual changes and long-term trends in regional populations. Due to low detection rates, however, these data are imprecise and should be interpreted cautiously.

During 2014, weather conditions were abnormally cool (although relatively dry) during the spring and early summer nesting and brood-rearing periods. The 2014 nesting season was preceded by three years of cool wet springs which resulted in poor bird production. Sizes of game bird chicks observed in late August 2014 were highly variable. This variation in size would indicate some successful nesting occurred during the normal nesting period and some production was the result of later renesting attempts.

A total of 22 pheasants were observed on these routes in 2014, which represents a 120% increase from the 10 birds tallied in 2013. However, this total is 65% below the previous 10-year average of 63 birds and is the fifth lowest total tallied in the last 25 years. For comparison, the highest tally in the past 10 years was the 199 pheasants observed on these same routes in 205. The 22 pheasants observed on the 240 miles of routes surveyed in 2014 equates to 0.09 pheasants observed per mile surveyed. Just three broods were encountered this year. An average of 10 broods was tallied on these routes over the past 20 years, including a high of 32 in 2005. The average size for the three broods observed in 2014 was 4.33 chicks.

During 2015, weather conditions were abnormally warm and dry during the spring and early summer nesting and brood-rearing periods. There was one significant precipitation event in very early June which likely occurred prior to the peak nesting period for most of our regional upland game bird species. The 2015 nesting season was preceded by several years of cool and/or wet springs which resulted in poor bird production. Sizes of game bird chicks observed in late August 2015 were highly variable. This variation in size would indicate some successful nesting occurred during the normal nesting period and t some production was the result of later re-nesting attempts.

A total of 115 pheasants were tallied on these routes in 2015, which represented a 423% increase from the 22 birds counted in 2014 and was 147% higher than the previous 10-year average of 47 birds. There were only 6 years out of the past 25 where more pheasants were tallied on regional

routes. However, the 115 birds observed in 2015 still represent just 58% of the historical high count of 199 counted in 2005. The 115 pheasants observed on the 240 miles of routes surveyed in 2015 equated to 0.48 pheasants observed per mile surveyed. Thirteen broods were encountered in 2015. An average of 6.8 broods was tallied on these routes over the previous 10 years, including a high of 32 in 2005. The average size of broods observed in 2015 was 5.2 chicks.

Other species recorded on routes included quail, gray partridge, doves, and cottontail rabbits.

Harvest Characteristics

A harvest survey estimated 1,287 hunters harvested 3,220 pheasants in 2015 (Table 2). The number of hunters and birds harvested increased from 2014 when an estimated 594 hunters harvested 2,240 birds. The number of pheasants harvested per hunter-day decreased from 1.0 in 2014 to 0.5 in 2015.

Management Implications

Pheasant populations in north Idaho have been at reduced levels since 1983. An abundance of small grain fields 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. The Clearwater Region will continue to place high priority on its involvement with this program.

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

In 2012, the Department initiated the Western Idaho Upland Game Bird SAFE (State Acres for Wildlife Enhancement) as a new opportunity to enhance wildlife habitat on up to 25,000 acres of private land in western Idaho. Producers within a SAFE area can submit offers to voluntarily enroll acres in CRP contracts for 10-15 years. In exchange, producers receive annual CRP rental payments, incentives and cost-share assistance to establish habitat-enhancing natural covers on eligible land. SAFE requires producers to maintain highly diverse stands to benefit upland game birds. In addition to the standard 50% CRP cost-share, SAFE contract holders receive an additional 40% practice incentive payment, as well as a signing incentive for newly enrolled acres. If establishment of SAFE acres increases on the landscape, pheasant abundance and hunter opportunity should increase in those areas.

California Quail

Population Surveys

No reliable population surveys are currently conducted for California quail in the Clearwater Region. However, quail are counted incidentally during annual pheasant brood route surveys, which provide annual population trend information. A total of 118 quail were counted in 2015 (0.49 birds per mile surveyed), which was nearly identical to the 117 birds tallied on these routes in 2014. The 118 birds counted in 2015 was 38% lower than the previous 10-year average of 191.5 and was 69% lower than the high count of 385 tallied in 2003.

Harvest Characteristics

Harvest survey data for the Clearwater Region estimated quail harvest in 2008 was the lowest recorded regional harvest in over 20 years, with 839 hunters harvesting 3,004 quail compared to 2007 when 1,392 hunters harvested 7,516 quail (Table 3). Low participation and harvest continued in 2009 with 687 hunters harvesting 4,547 quail. The 2010 data indicated a rebound with regional increases at 1,019 hunters and 9,579 quail harvested, while in 2011 harvest decreased with 732 hunters harvesting an estimated 7,329 birds; however, the number of birds harvested per hunter increased from 9.4 to 10.0. In 2012, hunter numbers (1,016) increased from 2011, while estimated quail harvest decreased by 2,427 quail. Regional hunter participation in 2013 was a record low number of 628 hunters harvesting an estimated 3,957 birds. This, however, resulted in an increase in number of birds per hunter from 2012 (4.8) to 2013 (6.3). The number of hunters in 2014 (654) and 2015 (642) were similarly low; however, the number of birds harvested increased from 3,421 in 2014 to 4,290 in 2015.

Management Implications

Availability of quail habitat probably has not changed dramatically in the past few years, nor is it expected to in the near future. The population appears to be strongly influenced by spring weather conditions. 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 GMU 11 in spring 2005 and 2006 as part of a 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, two 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 Department report by Ann Moser and is available at the Boise Headquarters office.

Trapping and Translocation

Another mountain quail project was started during spring 2004 in the Craig Mountain area. Mountain quail were transplanted into GMU 11 in spring 2005. Fifty 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 206. Survival was estimated at 22% for 2005 and 15% for 2006. The majority of known mortalities were caused by avian predators and mammals, 74% and 22% respectively.

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 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. Harvest survey data for the region estimated 2,952 hunters harvested 12,383 forest grouse in 2011, down from 2010 when 2,862 hunters harvested 13,323 forest grouse. Forest grouse harvested (10,959) continued to decline in 2012 while there was no change in number of hunters. Hunter numbers nearly doubled in 2013 (5,694), which increased harvest to 19,753 birds. Birds per hunter decreased slightly to 3.5 in 2013 compared to 3.7 in 2012. Hunter numbers decreased from 5,225 in 2014 to 3,446 in 2015, however, harvest increased from 15,401 to 19,148.

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 the 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 are 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 the Clearwater Region for several decades.

Management Implications

It is extremely difficult to reestablish populations of sharp-tailed grouse by translocation of 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 the 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 GMU 11 was conducted from 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.

Between 1988 and 2010, the breaks of the Snake River were surveyed from Tenmile Creek upstream to Corral Creek by helicopter (Table 5). From 1991 through 2010, the Salmon River breaks from White Bird to Maloney Creek were also surveyed annually. Helicopter surveys were considered a useful index to determine trends in fall chukar hunting opportunities. Although

other factors are apparently involved when predicting fall harvest, general trends appear predictable based on the surveys. Helicopter surveys for chukars were discontinued in 2011 due to agency flight safety program modifications.

Harvest Characteristics

Fluctuating harvest rates over the past several years likely reflect changes in productivity related to weather impacts. Harvest survey data estimated 919 hunters harvested 4,924 chukars in 2011, down from 2010 when 1,357 hunters harvested 10,684 chukars (Table 6). Hunter numbers increased to 1,079 in 2012, while harvest continued to decrease to 4,328. Hunter numbers as well as hunter harvest declined again in 2013; an estimated 739 hunters harvested 3,953 birds. Birds harvested per hunter slightly increased from 4.0 to 5.4. Hunter numbers increased from the previous year in 2014 (916) and 2015 (1,064). The number of birds harvested in 2014 (2,630) decreased from 2013 despite increased participation; however, harvest increased to 4,679 birds in 2015.

Management Implications

Annual chukar populations, like most upland game, are greatly influenced by weather conditions during the nesting and brood-rearing seasons. Reductions in season lengths and bag and possession limits do not appear to be needed during periods of population lows. Decrease in chukar harvest in 2011 and 2012 is likely due to unfavorable weather conditions during nesting and brood-rearing seasons. Like most gallinaceous bird species, chukar populations can rebound quickly given ideal nesting and brood-rearing conditions. Chukar habitat in the Clearwater region has remained largely unchanged, and abundance will likely increase in the future when favorable nesting conditions occur.

Gray Partridge

Population Surveys

No standardized population surveys are currently conducted for gray partridge in the Clearwater Region. However, gray partridge are counted incidentally during pheasant brood routes. In 2014, 61 gray partridge (0.25 partridge per mile surveyed) were observed while conducting these regional survey routes. That total was lower than the previous year (106) and also below the long-term average (previous 10-year average = 94). In 2015, a total of 176 gray partridge were observed on regional survey routes (0.73 birds per mile surveyed). This total was 189% higher than the 2014 total and was 87% above the previous 10-year average of 94. The total number of 176 gray partridge counted in 2015 was exceeded only twice in the past 25 years.

Harvest Characteristics

Harvest information on gray partridge has varied. For the 2011 season, an estimated 904 hunters harvested 4,470 gray partridge, slightly down from 2010 when an estimated 1,221 hunters harvested 4,785 gray partridge (Table 7). Harvest continued to decrease in 2012, when an estimated 876 hunters harvested 3,202 gray partridge. The decline in hunter participation

continued in 2013 (549 hunters), 2014 (518), and 2015 (494); however, harvest increased slightly over these years from 2,159 in 2013 to 2,541 in 2015.

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 turkey numbers are stable and turkeys are widespread throughout the region, in spite of increases in harvest opportunities to address problem sites.

A turkey research project was conducted in GMU 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 GMU basis since 1983. Regional turkey harvest steadily increased through 1999 as a function of expanding turkey distribution and numbers and increasing hunter effort, but has since become relatively stable. General season spring and fall turkey hunting was available beginning in 2005. Turkey harvest in the 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. Harvest in 2006 and 2007 was somewhat lower, but exceeded 2,500 birds (Table 8). In 2011, there were 2,041 birds harvested, compared to the 10-year average of 2,313 birds harvested. Spring harvest in 2012 was 1,373 turkeys. These data are not comparable to 2011 as they do not include fall harvest. In 2013, hunters harvested a total of 2,699 birds in spring and fall hunts. This represents the second highest harvest year since 2003. Combined spring and fall harvest declined from 2,613 birds in 2014 to 2,294 in 2015, above the 10-year average of 2,207.

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 occasionally supplied upon request to private individuals who

had large numbers of turkeys on their property, 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. As translocation stock becomes available, those birds will be used to supplement areas with heavy hunting pressure or declining population trends. Fifty-two turkeys were translocated in the Clearwater Region in January 2011 to alleviate depredation issues (Table 9). In 2016, a total of 95 turkeys were trapped around feedlots in GMU 13 and were released in GMU 15.

Management Implications

Wild turkeys continue to expand their range within the 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 Department regions, or to other states. The present hunting season structure does not appear to adversely impact the expansion of populations.

Mourning Dove

Population Surveys

Historically there were two mourning dove call-count routes conducted in the Clearwater Region. By themselves, these routes did not provide an accurate index to dove production or population trends (Table 10). However, when incorporated into the results from all other routes in the state, an index to statewide dove production was achieved. Beginning in 2015, a three-year experimental monitoring protocol was initiated by the USFWS to estimate mourning dove populations across the US that consisted of a single-observer survey that utilizes distance sampling during point counts along established Call Count Survey routes to estimate population abundance. One of these routes was located in the Clearwater Region.

In 2015, we transitioned into a 3-year experiment to test a new sampling scheme, i.e. - Modified Coo-Count Survey with Distance Sampling. One regional route (1150) was included in this experiment. Since the protocol was different, results are probably not directly comparable with those collected previously (Table 10). However, 3 doves were heard during this 20-mile/stop survey effort (0.15 doves heard per mile surveyed). An additional 35 doves were seen, representing 6 separate groups/flocks during this survey (but were not heard/calling).

Harvest Characteristics

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

Trapping and Banding

The 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 three sites. All doves received a standard leg band; hatch-year doves also received a reward band. In 2005, a total of 10 doves were banded at two sites. Four individuals were recaptured during the course of the 2005 season (two adult males and two hatch-year birds). Annual capture efforts have continued to yield variable results (range of 7 to 109 doves, 2006-2013). A total of 46 doves were banded in 2013. In 2014, a personnel shortage in the regional wildlife program resulted in a total of just eight doves being banded in the region. Forty-four doves were trapped/banded in the Clearwater Region in 2015.

Management Implications

Dove management in the Clearwater Region consists of offering 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 land in upland areas in Clearwater Region.

Harvest Characteristics

Cottontail harvest appears to be well under minimum sustainable levels, only 42 cottontails were harvested by 56 hunters in 2015 (Table 12). In 2014 there was an increase in hunter participation (186 hunters) and harvest (350) compared to 2013 when 55 hunters harvested 55 cottontails. In 2012, an estimated 46 hunters harvested 46 cottontails, down from 2011. For the 2011 season, an estimated 42 hunters harvested 157 cottontails, down from 2010 when an estimated 146 hunters harvested 305 cottontails. In 2009, there were 10 hunters that harvested an estimated 29 rabbits, down from 2008 when 20 hunters harvested 171 rabbits.

Management Implications

Management direction for cottontail rabbits in the 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 pressure on snowshoe hares is light in the Clearwater Region. Only 147 snowshoe hares were harvested by 52 hunters in 2015, which represents a decline from the 2014 and 2013 seasons when 186 and 128 hunters harvested 388 and 155 snowshoe hares, respectively (Table 12). For the 2011 and 2012 seasons, one snowshoe hare was harvested by an estimated 55 and 74 hunters, respectively (Table 12). In 2010, it was estimated that 80 hunters harvested 186 snowshoe hares compared to 2009 when no snowshoe hares were harvested by an estimated 42 hunters. Few hunters appear to pursue hares and most harvest is incidental to other hunting activities.

Management Implications

Management direction of snowshoe hares in the Clearwater Region is to provide maximum hunter opportunity through liberal seasons and bag limits.

American Crow

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

Table 1. Pheasant population characteristics and production, Clearwater Region, 2006-present.

Year	Routes (miles) counted	Birds per mile	Percent unsuccessful females	Juv:10 adult females	*n*	Average brood size
2006	12 (240)	0.2	33	383	49	8.2
2007	12 (240)	0.2	17	40	43	4.0
2008	12 (240)	0.2	28	40	38	5.6
2009	12 (240)	<0.1	ND	ND	1	ND
2010	12 (240)	<0.1	ND	ND	5	4.0
2011	12 (240)	0.1	25	350	27	4.7
2012	12(240)	0.3	0	70	72	7.0
2013	12(240)	<0.1	0	50	10	2.5
2014	12(240)	0.1	0	433	13	4.3
2015	12(240)	0.5	30	310	31	5.2
10-year average	12 (240)	0.2	8	516	29	5.0

Table 2. Estimated pheasant harvest, Clearwater Region, 2006-present.

Year	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2006	2,593	8,813	13,626	3.4	0.7
2007	2,392	6,388	11,967	2.7	0.5
2008	1,568	2,737	5,395	1.7	0.5
2009	981	1,483	4,098	1.5	0.4
2010	1,442	4,774	5,489	3.3	0.9
2011	1,067	3,095	6,663	2.9	0.5
2012	1,368	4,083	9,369	3.0	0.4
2013	1,080	2,082	4,944	1.9	0.4
2014	594	2,240	2,270	3.8	1.0
2015	1,287	3,220	5,967	2.5	0.5
3-year avg.	987	2,514	4,394	2.7	0.6

Table 3. Estimated quail harvest, Clearwater Region, 2006-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2006	1,811	19,830	15,636	10.9	1.3
2007	1,392	7,516	4,846	5.4	1.5
2008	839	3,004	3,285	3.6	0.9
2009	687	4,547	4,282	6.6	1.1
2010	1,019	9,579	5,569	9.4	1.7
2011	732	7,329	6,159	10.0	1.2
2012	1,016	4,902	4,874	4.8	1.0
2013	628	3,957	3,042	6.3	1.3
2014	654	3,421	3,313	5.2	1.0
2015	642	4,290	3,372	6.7	1.3
3-year avg.	641	3,889	3,242	6.1	1.2

Table 4. Estimated forest grouse harvest, Clearwater Region, 2006-present.

Year	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2006	7,351	29,238	49,437	4.0	0.6
2007	5,140	24,533	40,784	4.8	0.6
2008	3,280	14,222	33,991	4.3	0.4
2009	4,243	22,362	50,190	5.3	0.4
2010	2,862	13,323	28,863	4.7	0.5
2011	2,952	12,383	33,474	4.2	0.4
2012	2,952	10,959	38,861	3.7	0.3
2013	5,694	19,753	33,435	3.5	0.6
2014	5,225	15,401	36,191	3.0	0.4
2015	3,446	19,148	31,372	5.6	0.6
3-year avg.	4,788	18,100	33,666	4.0	0.5

Table 5. Helicopter surveys of chukar in GMU 11, Clearwater Region, 2000-2010.

Area	Year	Number of birds	Number of groups	Groups/ sq. mile	Birds/ sq. mile	Birds/ group
Salmon River Breaks	2000	756	60	5.0	64.0	12.6
	2001	1,192	94	7.9	10.0	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
	2006[b]					
	2007[a]					
	2008[c]					
	2009[c]					
	2010	1,491	173	15	125	9.0
Snake River Breaks	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
	2006[b]					
	2007[a]					
	2008[c]					
	2009[c]					
	2010	1,276	109	7	79	12.0

[a] Surveys not flown due to fire-related concerns or conflicts.
[b] Surveys not flown due to budget constraints.
[c] Surveys not flown due to lack of current helicopter vendor and price list.

Table 6. Estimated chukar harvest, Clearwater Region, 2006-present.

Year	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2006	1,949	13,619	6,353	7.0	2.1
2007	826	6,721	3,937	8.1	1.7
2008	857	2,337	3,156	2.7	0.7
2009	870	5,263	2,520	6.0	2.1
2010	1,357	10,684	5,217	7.9	2.1
2011	919	4,924	5,890	5.4	0.8
2012	1,079	4,328	2,614	4.0	1.7
2013	739	3,953	2,281	5.4	1.7
2014	916	2,630	3,186	2.9	0.8
2015	1,064	4,679	4,741	4.4	1.0
3-year avg.	906	3,754	3,402	4.2	1.2

Table 7. Estimated gray partridge harvest, Clearwater Region, 2006-present.

Year	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2006	1,107	6,700	4,941	6.2	1.4
2007	568	1,703	2,487	3.0	0.7
2008	498	681	1,698	1.4	0.4
2009	480	2,526	2,289	5.3	1.1
2010	1,221	4,785	6,181	3.9	0.8
2011	904	4,470	5,649	4.9	0.8
2012	876	3,202	3,642	3.7	0.9
2013	549	2,159	2,281	3.9	0.7
2014	518	2,333	2,443	4.5	1.0
2015	494	2,541	3,158	5.1	0.8
3-year avg.	520	2,344	2,627	4.5	0.8

Table 8. Estimated turkey harvest by GMU, Clearwater Region, 2006-present.

	GMU[a]																	Total hunter
Year	8	8A	10	10A	11	11A	12	13	14	15	16	16A	17	18	19	20	Total	days
2006[a]	309	320	65	712	164	364	37	33	98	122	233	0	0	50	0	0	2,507	25,900
2007[a]	233	343	21	766	239	170	43	42	99	210	284	0	0	68	0	0	2,519	20,225
2008[a]	218	346	13	440	77	332	25	27	91	120	147	0	0	10	0	0	1,845	18,592
2009[a]	355	306	43	565	119	263	14	37	72	91	297	0	0	51	0	0	2,212	22,644
2010	254	317	30	604	143	197	28	66	35	90	146	4	0	55	0	0	1,970	19,523
2011[a]	202	424	29	597	156	206	15	74	85	68	95	2	2	83	2	1	2,041	20,288
2012[b]	170	198	13	388	199	187	42	27	40	47	40			22	0	0	1,373	13,471
2013	314	408	98	893	230	233	10	49	83	88	167		5	118			2,699	24,142
2014	314	376	62	924	198	241	10	76	102	86	113	0	5	106	0	0	2,613	24,630
2015	248	451	29	757	187	242	17	65	51	130	53	0	0	52	9	3	2,294	21,208
10-year avg.	262	349	40	665	171	244	24	50	76	105	158	1	1	62	1	0	2,207	21,062

[a] Fall general wild turkey harvest included.

[b] Fall general wild turkey harvest not included

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Table 9. Turkey translocation history, Clearwater Region, 2004-present.

Year	Sub-species[a]	Release site Drainage-GMU	Source-GMU	Birds released M	F	Total	New or supplemental release
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
2007	H	Brown Cr-15	Deer Cr-14			22	S
	M	Benton Meadows-11	Boundary County-1	17	59	76	S
	M	Eagle Creek- 11	Boundary County-1	25	29	54	S
2008	H	Castle Creek-15	Sally Anne Rd-15	1	13	14	S
	H	Lawyer Cyn-11A	Sally Anne Rd-15	1	15	16	S
	H	Castle Creek-15	Nez Perce-11A	U	U	20	S
2011	H	Browns Creek-15	Cottonwood Crk-11A	0	7	7	S
	H	Rock Creek-14	Cottonwood Crk-11A	2	6	8	S
	H	Billy Creek-11	Lewiston-11	U	U	37	S
2016	H	Castle Cr-15	Crabtree/Stowers-13	U	U	95	S
2017	H	Castle Cr-15	Crabtree-11A	U	U	39	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, 2006-2013.

	Call-count routes	
Year	Routes counted	Doves heard/mile
2006	2	0.67
2007[a]	1	0.13
2008	2	0.13
2009	2	0.13
2010	2	0.13
2011	2	0.13
2012	2	0.23
2013	2	0.18
2014	n/a	
2015[b]	n/a	

[a] Route 1150 not surveyed.
[b] See notes in narrative.

Table 11. Mourning doves banded in Clearwater Region, 2006-present.

	Adult					
Year	Male	Female	Unknown	Hatch-year	Unknown	Total
2006	23	10	2	26	0	61
2007	1	4	1	1	0	7
2008	11	8	8	8	2	27
2009	12	3	0	18	0	33
2010	21	12	7	7	4	51
2011	16	8	4	12	0	40
2012	13	16	5	63	12	109
2013	12	4	4	24	2	46
2014	3	0	0	4	1	8
2015	11	18	1	13	1	44
Total	123	83	32	176	22	426

Table 12. Estimated cottontail rabbit and snowshoe hare harvest, Clearwater Region, 2006-present.

	Cottontail rabbit		Snowshoe hare	
Year	Hunters	Cottontails harvested	Hunters	Hares harvested
2006	227	587	92	144
2007	95	168	116	11
2008	20	171	19	0
2009	10	29	42	0
2010	146	305	80	186
2011	42	157	55	1
2012	46	46	74	1
2013	55	55	128	155
2014	186	350	186	388
2015	56	42	52	147
3-year average	99	149	122	230

SOUTHWEST REGION

Climatic Conditions

Precipitation during fall 2014 was well below average in the Owyhee Mountains and about average north of the Snake River, followed by below average snow cover but average overall precipitation during winter 2014-2015. Precipitation during spring 2015 was above average during May. Upland bird species respond in different ways to precipitation patterns. Typically sage-grouse and forest grouse favor mild, wet springs that provide good cover and forb production, which translates to higher brood survival. Sage-grouse and dusky grouse had good brood success (210 juveniles:100 hen sage-grouse and 242 juvenile:10 adult dusky grouse), likely due to adequate fall moisture, followed by a mild, wet spring. Quail and chukar had fair to good brood success and harvest was up for both species compared to fall 2013 (16% increase).

Precipitation during fall 2015 was average across southern Idaho, followed by below average snowpack in the Owyhee Mountains and average snowpack north of the Snake River. Spring precipitation in 2016 was average. Sage-grouse had the highest brood success ever recorded with 552 juveniles:100 hens. Dusky grouse and ruffed grouse had average brood success at 189 juveniles:100 adults and 182 juveniles:10 adults, respectfully. However, overall forest grouse harvest was the highest recorded in the Southwest Region. Quail and chukar partridge had average and below average brood success, respectfully.

Trapping and Translocation

No turkeys or other upland game birds were trapped and translocated into the Southwest Region during winter 2014-2016.

Pheasant

Population Surveys

Average number of young per brood based on survey routes was 4.4 in 2014 and 3.6 in 2015. In 2014, it was similar to the 10-year average, while in 2015 it was down 18% compared to the 10-year average of 4.4. Pheasant abundance was up 41% in 2014 compared to 2013, but down 26% in 2015 compared to 2014 (Table 1).

Harvest Characteristics

A harvest survey of upland game hunters was conducted in 2014 (Table 2). An estimated 7,037 hunters harvested 22,064 birds in the Southwest Region during fall 2014, for an average of 0.6 birds/hunter-day. Hunter participation decreased 2%, but number of pheasants harvested increased 27% compared to 2013. Birds per hunter-day was 0.6, up 17% compared to 2013 and similar to the 10-year average.

In 2015, an estimated 6,853 hunters harvested 26,584 birds. Total number of hunters decreased 3%, but harvest increased 17%. Birds per hunter-day was 0.6, which is the same as 2014 and slightly below the 10-year average (Table 2).

No pheasant check stations were operated in the Southwest Region in 2014 or 2015 (Table 2). Harvest information is available via the annual telephone harvest survey.

Habitat Conditions

Long-term population trends are down, primarily due to conversion of agriculture to residential and commercial development. Fall plowing of all grain fields has become the normal operating procedure, thereby limiting winter food and cover for pheasants. Unless these farm practices are changed, further long-term reductions in wild populations are expected. We continue to work with landowners to enhance pheasant and other upland game production.

Depredations

Some pheasant depredations occur every spring on wheat, barley, and corn. Sweet corn is the primary crop damaged by pheasants. Cracker shells and salutes are no longer provided to landowners to alleviate the problem due to new Federal regulations. However, landowners are encouraged to continue contacting the Department for assistance.

Release of Pen-reared Pheasants

Adult roosters were purchased from a contractor and released on Department lands in the Southwest Region. A total of 9,673 pheasants were released on Fort Boise, C. J. Strike, Payette River, and Montour WMAs from October 18- December 25, 2014 and 2015. These birds added significantly to hunter opportunity on these four 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 pheasant populations while 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.

The 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 2014, regional wildlife staff observed 2.7 quail per mile along 520 miles of brood routes surveyed, 26% higher than 2013, but 13% lower than the 10-year average. In 2015, 2.9 quail were observed along 430 miles of brood route, 7% higher than 2014 and 3% above the 10-year average (Table 3).

Harvest Characteristics

An estimated 6,341 hunters harvested 50,881 quail in 2014 (Table 3). Hunter participation increased by 8% compared to 2013, and quail harvest increased 18%. Quail harvest in 2014 was 33% below the 10-year average.

During 2015, 6,692 hunters harvested 69,084 quail, a 26% increase compared to 2014. Hunter participation increased 5% compared to 2014 and total harvest was right at the 10-year average (Table 3).

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 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 9,420 hunters harvested 25,612 forest grouse in the Southwest Region in 2014 (Table 4). Forest grouse harvest increased 50% compared to 2013, and was 31% higher than the 3-year average. Hunter participation was up 35% compared to 2013.

In 2015, an estimated 6,654 hunters harvested 21,520 forest grouse. Harvest was down 16% and hunter participation was down 29% compared to 2014. Overall harvest was down 10% compared to the 3-year average (Table 4).

A few birds are checked incidental to other activities. No check stations are run specifically for forest grouse. Wings from harvested grouse (284 and 301 dusky (blue) grouse in 2014 and 2015, respectfully, and 242 and 189 ruffed grouse in 2014 and 2015, respectfully) were collected at 19 wing barrels distributed in GMUs 22, 31, 32, 32A, 33, and 39. Juvenile:adult ratios of 242:10

and 103:10 were documented for dusky grouse and ruffed grouse, respectively in 2014 and 189:10 dusky and 182:10 ruffed grouse were recorded in 2015 (Table 5).

Management Implications

Forest grouse populations are dependent on good nesting and brood-rearing conditions as well as type and severity of winter conditions. A cold, wet winter with soft snow is better for survival than wet winters with freezing and thawing events. There is concern that insect damage to evergreen species may have a negative impact on blue (dusky) grouse populations. We have emphasized good forest grouse habitat management procedures to the 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.

Sage-grouse

Population Surveys

We observed 863 male sage-grouse along 12 lek routes in the Southwest Region during March-May 2015, a 29% increase compared to 2014. In 2015, we observed 1,139 sage-grouse, a 68% increase compared to 2014 (Table 6). We also conducted aerial surveys and observed 1,042 birds on 56 leks (includes leks counted on ground lek routes if also counted from the air) along the Bruneau Escarpment in conjunction with the Bureau of Land Management, a 32% increase compared to 2014. In 2016 we observed 1,130 grouse on 50 leks, an 8% increase compared to 2015.

Harvest Characteristics

One sage-grouse check station was operated on opening weekend (Mud Flat Road) during fall 2014 and 2015. Forty-eight hunters harvested 40 birds in 2014 and 64 hunters harvested 52 birds in 2015. In 2014, there was a decrease in number of birds harvested compared to 2013, but an increase in 2015. The number of sage-grouse harvested in 2015 was the highest number since the season structure was reduced from 23 days and a two bird bag limit, to 7 days and a one bird bag limit. The number of birds per hunter-day was on average 0.7, and hours per bird was on average 4.6, much lower than the 10-year average (Table 7). Sage-grouse production was 25% above average in 2014. The number of juveniles per 10 females was 210, 28% higher than the 10-year average. Literature suggests it takes 20 juveniles per 10 adults to sustain/increase a population. In 2015, an unprecedented 552 juveniles per 10 hens were recorded, a 311% increase compared to the 10-year average (Table 8).

Management Implications

Lek survey information suggests sage-grouse populations have started to rebound since the emergence of West Nile virus (WNV) in the southern half of the region in 2006. The West Central population crashed after the 2006 WNV outbreak and has not recovered, mainly due to habitat loss and continued presence of the virus. Populations are largely dependent upon habitat

conditions and spring weather conditions during nesting and brood- rearing. Diseases such as WNV, which sage-grouse are highly susceptible to, provide an additional stressor to sage-grouse population persistence. Recruitment of birds into fall will be governed by uncontrollable weather and disease factors.

We continue to work closely with the BLM to reduce impacts of current and proposed land management practices on sage-grouse habitat. A study was conducted in several portions of Owyhee County during 2007-2010 to ascertain seasonal distribution and movements, and to document the impacts of WNV on sage-grouse. The study has been used to prioritize habitat protection and improvement efforts based on key seasonal habitat used by sage-grouse. A report documenting seasonal distribution, habitat use patterns, productivity, and survival rates in Washington County is available. 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. West Nile Virus has surfaced annually in this area and much of the habitat has been converted/developed to ranchettes. The Washington County population will likely not persist within the next 10-15 years.

In August 2015, a wildfire broke out along the Owyhee Front, burning 279,000 acres of grasses and shrubs. About a third of this fire occurred in sage-grouse habitat, burning across 11 active leks. Federal and State agencies, landowners, and NGO's are working together to develop habitat restoration projects throughout the burned area. It is important to note that the sage-grouse habitat burned was on the northern edge of intact sagebrush and will have little if any effect on overall sage-grouse populations in Owyhee County. Leks will continue to be monitored in the future.

Sharp-tailed Grouse

Population Surveys

Sharp-tailed grouse lek counts have been conducted annually on the Hixon Sharp-tailed Grouse Preserve in west-central Idaho since 1982. Counts of males on these leks in 2014 decreased 34% compared to 2013, increased by 37% in 2015 and, but were still 46% below the 2010 count. In 2015, counts increased by 2% in 2016 compared to 2014 (Table 9). Monitoring of remnant flocks and additional leks in the area was most recently conducted in 2000 by BLM personnel, and indicate a small, but stable number of birds attending leks in recent years. Additional lek routes in west-central Idaho will be conducted in the future to identify long-term trends on and off the Preserve.

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

The 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 the 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 cooperatively managed for sharp-tailed grouse. 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 in the monitoring program.

Populations appear to be increasing because of CRP improvements, the creation of the Sharp-tailed Grouse Preserve, changes in land management practices, and good climatic conditions. It is not likely that populations will reach harvestable levels, mainly because of their isolation from other sharp-tailed grouse populations and the threat of human encroachment as ranches are broken up into smaller parcels. Additional improvements in occupied and adjacent habitats will ensure long-term stability of this isolated population.

Chukar

Population Surveys

Between 1984 and 2010, helicopter surveys were conducted in late-August or early September along a portion of Brownlee and Lucky Peak reservoirs to monitor chukar population trends. However, due to cost and safety issues, aerial chukar surveys are no longer conducted. The last survey was 2009 at Lucky Peak and 2010 at Brownlee (Table 10 and 11).

Harvest Characteristics

In 2014, an estimated 4,624 hunters pursued chukar in the Southwest Region and harvested an estimated 19,405 birds. Participation decreased 4%, but harvest increased 14% compared to 2013 (Table 12). From 2004-2014, the annual chukar harvest averaged 38,400 by 5,723 hunters.

An estimated 5,943 hunters harvested 33,167 chukar in 2015. Total number of hunters increased 22% while total harvest increased 41% compared to 2014. Birds per hunter day was the highest it been since 2012, but still 15% below the 10-year average (Table 12).

One check station operates at Andrus WMA during opening weekend. A total of 20 hunters harvested 45 birds for a total of 2.3 birds per hunter and 2 hours per bird. Overall harvest increased 37% and hunter participation increased 25% compared to 2014 (Table 12)

Management Implications

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 are improved to moderate the effect of weather conditions. In August 2015 the Soda fire burned 279,000 acres of upland habitat along the Owyhee Front. This area is popular for upland bird hunting. The area still held a lot of chukar following the fire, but was closed to human entry that entire fall. Numerous agencies and NGO's are working together to improve upland habitat and prevent similar large fires in the future.. It is unlikely these fires will negatively impact local chukar populations or hunting opportunity in the long term.

Gray Partridge

Population Surveys

Fifty-eight gray partridge were observed along 520 miles of pheasant brood survey routes in 2014 and 29 partridge were observed on 430 miles on brood routes in 2015 (Table 13). Gray partridge exhibit extreme population fluctuations (peak, crash, slow, steady increase towards peak). Thus, gray partridge are typically much more difficult to survey than other upland species.

Harvest Characteristics

In 2014, an estimated 1,830 hunters pursued gray partridge in Southwest Region and harvested an estimated 4,751 birds, 17% more than 2013, but still well below the 10-year average of 61%. Hunter numbers decreased 12% compared to 2013 (Table 13).

An estimated 2,196 hunters harvested 10,159 gray partridge during 2015. Hunter participation increased 22% and harvest increased 53% compared to 2014. Birds per hunter day was 57% higher than 2014, but right at the 10-year average (Table 13).

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

Management Implications

Gray partridge in southwest Idaho are typically associated with cereal grains adjacent to CRP lands or sagebrush rangeland. Deep and/or hardened snow adversely affects gray partridge over-winter survival and the amount of precipitation in late-spring and early summer influence gray partridge production. Below average precipitation is favorable for nesting and especially early brood-rearing. Recruitment of birds into fall will be governed by uncontrollable weather factors and the availability of suitable habitat (cereal grains and adequate cover). Gray partridge populations will continue to decline as agricultural fields are converted to subdivisions.

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 across the region and general fall hunting opportunities are no longer offered in any GMUs in the Southwest Region.

Harvest Characteristics

Three controlled spring hunts and two controlled fall hunts were held for turkeys in the Southwest Region in 2014, including a youth hunt. A general spring gobbler-only hunt was held in most GMUs in 2014. General fall hunts were discontinued in GMUs 31, 32, and 32A in 2011. GMUs 33 and 39 were closed to fall turkey hunting in 2006. Harvest estimates for 2014 spring controlled hunts show a 14% increase in turkeys harvested compared to 2013. General spring harvest show a 39% increase compared to 2013. Overall hunter numbers were up 27% during spring 2014 (Table 14).

During spring 2015 controlled hunts, 126 birds were harvested by 123 hunters, a 13% increase in harvested birds, but a 25% decrease in number of hunters. During the spring general season, 2,342 hunters harvested 567 turkeys. Overall harvest and participation was down 23% and 32%, respectively, compared to 2014 (Table 14).

No check stations were operated during this planning period.

Trapping and Translocation

No turkeys were translocated to the Southwest Region during winter 2014-2015 and 2015-2016 (Table 15).

Depredations

A few turkey depredation or nuisance complaints were received during winter 2014-2015. More complaints are coming from private landowners along the Boise River near Parma. We are currently monitoring the situation and will address nuisance turkeys with depredation hunts or increase controlled hunt permits.

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In some areas of the region, turkeys are dependent upon supplemental feed to survive the winter. During winter 2014-2015 and 2015-2016, Department personnel, in cooperation with members of the Idaho and local chapters of NWTF, distributed 1.6 tons of donated corn to sustain turkeys in Council. The amount of corn dispensed was compared to previous winters.

Management Implications

General season turkey hunter numbers and harvest increased in 2014 compared to 2013, but decreased in 2015. General fall hunts in GMU's 31, 32, and 32A were moved to controlled hunts in 2011 to alleviate concerns about declining turkey populations in the southwest region. General fall hunts in GMU's 33 and 39 have not occurred since 2006. Regional personnel have supported enhancement of turkey habitat by planting food plots specifically for wild turkey and by completing habitat improvement projects on Department-owned lands. Additionally, regional personnel have provided input on the importance of turkey habitat in land-use plans

Turkeys have not been trapped or transplanted in the Region since 2010.

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 (Table 16).

Population Surveys

Regional personnel conducted one mourning dove modified call-count survey during May 2015 and May 2016. In 2014 and 2015, regional personnel also counted mourning doves while conducting pheasant brood routes. Approximately 5.7 mourning doves were counted per mile in 2014, up 14% compared to 2013. In 2015, 6.1 mourning dove were observed along 430 miles of pheasant brood surveys, up 7% compared to 2014 (Table 16).

Trapping and Banding

The Southwest Region has participated in a statewide effort to trap and band mourning doves since 2003 (Table 17). All doves banded between 2003 and 2007 were banded with US Geological Survey (USGS) toll-free bands. During 2008-2009, the USGS introduced web address bands. Since 2010, all doves have been banded with web-address bands. One-hundred twenty-five doves were banded in the Southwest Region in 2014 and 88 doves were banded in 2015.

Rabbits and Hares

Population Surveys

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

Harvest Characteristics

Estimates from the telephone harvest survey indicate 418 hunters harvested 1,336 cottontail rabbits in 2014 compared to 514 cottontails harvested by 587 hunters in 2013 (Table 18). No snowshoe hares were harvested during 2014-2015.

In 2015, 830 hunters harvested 1,767 cottontail rabbits, a 49% increase compared to 2014. About 40 snowshoe hares were harvested by 124 people in 2015. This is a marked increase in hare harvest as the last time hares were harvested was 2012.

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.

American Crow

We do not actively monitor American crow populations or harvest in the Southwest Region, though we do allow an annual harvest season with no bag or possession limit.

Table 1. Pheasant population characteristics and production, Southwest Region, 2006-present.

Year	Miles counted	Birds per mile	Percent unsuccessful females	Juv:10 adult females	*n*	Average brood size
2006	520	0.8	36	640	288	5.5
2007	460	0.8	38	356	268	4.8
2008	520	0.6	11	583	216	5.3
2009	520	0.6	13	657	309	4.5
2010	460	0.2	4	450	97	4.6
2011	460	0.4	25	416	170	3.9
2012	520	0.7	29	336	138	4.3
2013	520	0.3	7	228	164	3.0
2014	520	0.4	26	389	231	4.4
2015	430	0.4	24	286	193	3.6
10-year average	493	0.5	21	434	225	4.4

Table 2. Estimated pheasant harvest, Southwest Region, 2006-present.

	Check station				Telephone survey[a]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds harvested	Birds per hunter day
2006	106	83	0.8	3.5	10,540	25,211	0.9
2007	98	44	0.4	4.8	10,689	35,437	0.6
2008[a]	60	29	0.5	5.5	10,832	48,775	1.0
2009[b]	n/a				9,694	31,972	0.6
2010	n/a				7,979	24,011	0.6
2011	n/a				8,903	28,400	0.5
2012	n/a				8,580	27,885	0.7
2013	n/a				7,194	16,140	0.5
2014	n/a				7,037	22,064	0.6
2015	n/a				6,853	26,584	0.6
10-year average	n/a				8,830	28,647	0.7

[a] Freezeout Hill check station only.

[b] Pheasant Check Stations will no longer be operated from this point forward.

Table 3. Quail population characteristics and estimated harvest, Southwest Region, 2006-present.

	Brood routes		Telephone survey		
Year	Miles counted	Birds[a] per mile	Hunters	Birds harvested	Birds per hunter day
2006	520	3.4	8,05	98,059	1.8
2007	460	3.9	8,442	88,067	1.7
2008	520	2.3	8,205	74,576	1.6
2009	520	1.7	7,815	35,695	1.8
2010	460	3.0	6,551	58,413	1.8
2011	460	3.0	6,897	66,906	1.7
2012	520	3.9	7,095	97,055	2.5
2013	520	2.0	5,814	41,860	1.3
2014	520	2.7	6,341	50,881	1.5
2015	430	2.9	6,692	69,084	1.9
10-year average	493	2.8	7,186	68,059	1.8

[a] Almost entirely California quail.

Table 4. Estimated forest grouse harvest, Southwest Region, 2006-present.

Year	Hunters	Birds harvested	Birds per hunter	Birds per hunter day
2006	10,435	29,056	2.8	0.5
2007	5,711	20,572	3.6	0.5
2008	6,372	14,666	2.3	0.4
2009	8,703	18,411	2.1	0.4
2010	6,984	16,858	2.4	0.4
2011	5,454	19,361	2.6	0.5
2012	5,454	14,309	2.6	0.4
2013	6,167	12,747	2.1	0.3
2014	9,420	25,612	2.7	0.4
2015	6,654	21,520	3.2	0.5
3-year avg.	7,414	19,960	2.7	0.4

Table 5. Forest grouse production in Southwest Region based on wing collection, 2006-present.

	Blue Grouse			Ruffed Grouse	
Year	*n*	Juv:10 adult females	Juv:10 adults	*n*	Juv:10 adults
2006	292	310	143	164	157
2007	409		186	141	227
2008	137		145	99	136
2009	502		261	103	177
2010	216		98	68	106
2011	179		290	151	340
2012	187		114	65	282
2013	165		132	194	173
2014	284		242	132	103
2015	301		189	229	182
3-year avg.	267	234	180	135	188

Table 6. Southwest Region sage-grouse lek route data, 2007-present.

Route	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Big Jack's Creek			28	39	114	116	98	103	140	162
Brown’s Creek	31	9	14	12	30	42	34	28	48	36
Craig	35	18	39	49	20	12	19	14	8	6
Cow Creek	24	31	61	69	52	13	25	51	45	65
Monday Gulch	25	23	14	15	14	16	9	7	0	3
Midvale	35	23	23	35	21	22	10	9	9	3
Oreanna	54	55	40	63	74	68	61	82	109	124
Wickahoney	78	41	31	31	41	36	28	37	56	84
Rocky Knoll	93	73	91	153	198	146	124	130	198	293
Roland Road	77	39	44	43	65	59	57	77	10	160
Sheep Creek	130	95	95	10	83	81	68	64	134	184
Soulen Center	38	21	22	30	23	16	9	9	16	19

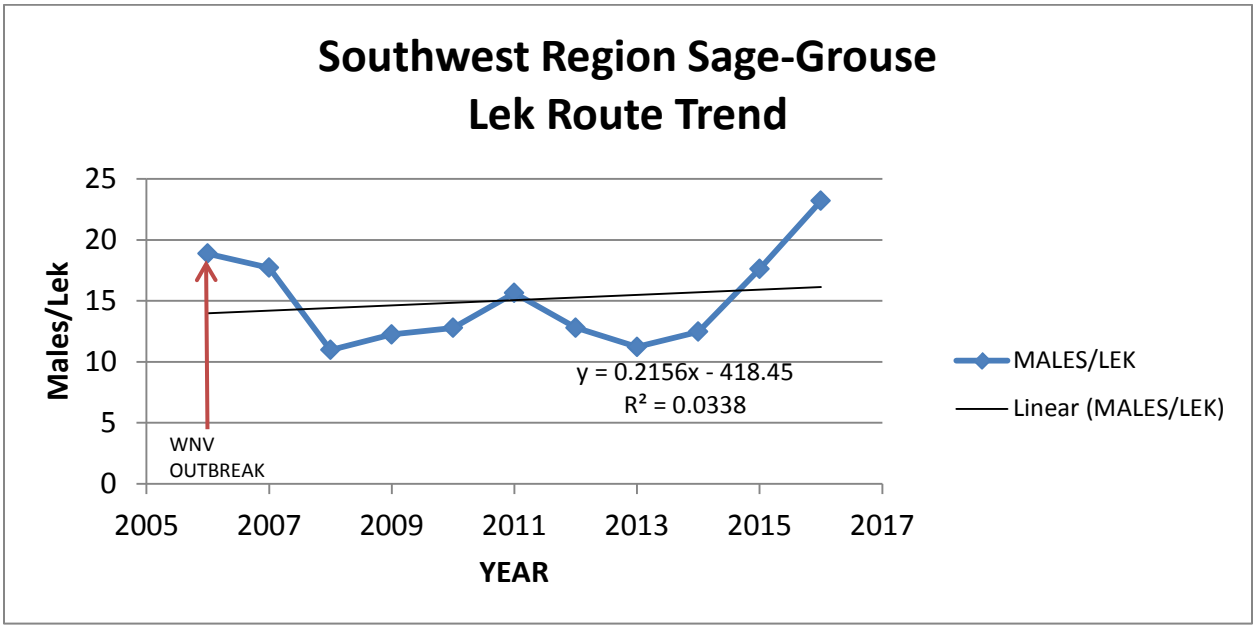

Figure 1. Average number of male sage-grouse per lek along 12 lek routes in the Southwest Region. West Nile Virus (WNV) emerged during summer 2006 followed by unusually dry spring and summer 2007.

Table 7. Estimated greater sage-grouse harvest, Southwest Region, 2006-present.

	Check station[a]				Telephone survey		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds harvested	Birds per hunter day
2006[b]							
2007	132	109	0.8	7.4	1,175	824	0.4
2008	137	96	0.8	7.9	898	897	0.8
2009	119	10	0.8	8.4	502	811	0.8
2010	62	35	0.6	10.1	222	171	0.4
2011	45	26	0.6	8.4	397	232	0.3
2012	46	43	0.9	5.1	361	363	0.6
2013	58	46	0.8	4.7	470	262	0.5
2014	48	40	0.6	4.9	219	398	0.5
2015	64	52	0.8	4.3	426	435	1.0
10-year average	79	61	0.7	6.8	519	488	0.6

[a] Only Bruneau and Mud Flat check stations were operated from 201-2008. Only Mud Flat Road operated from 2009-present.

[b] Season was closed in 2006 due to West Nile Virus losses in sage-grouse.

Table 8. Greater sage-grouse production based on wing collections, Southwest Region, 2006-present.

Year	Juv:10 females	Juv:10 adults	Percent unsuccessful females
2006[a]			
2007	43	36	86
2008	106	73	70
2009	204	126	41
2010	141	127	63
2011	93	60	63
2012	113	69	36
2013	131	92	72
2014	210	141	26
2015	552	321	48
10-year avg.	177	116	56

[a] Season was closed in 2006 due to West Nile Virus losses in sage-grouse.

Table 9. Trends in sharp-tailed grouse lek counts, Hixon Sharptail Preserve, Southwest Region, 2006-present.

Year	Lower	Middle	Upper	Fairchild	Totals
2006	47	24	51	33	155
2007	59	21	46	43	169
2008	27	8	19	7	61
2009	25	9	30	22	86
2010	35	19	38	27	119
2011	38	9	42	10	99
2012	32	9	16	10	67
2013	13	9	27	12	61
2014	12	6	16	6	40
2015	20	8	19	17	64
2016	25	6	19	15	65

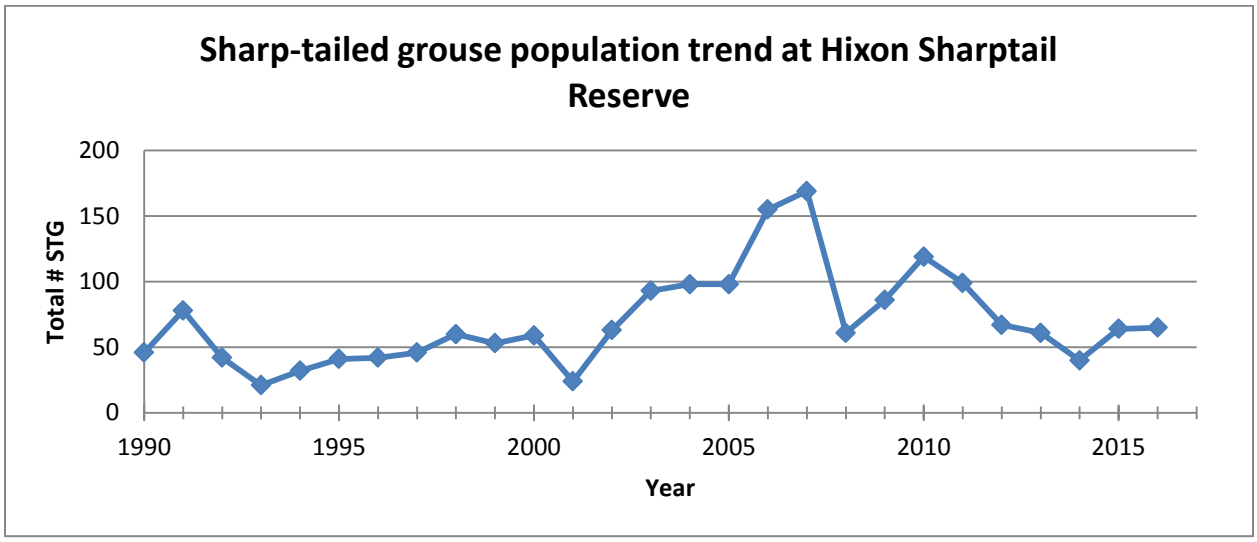

Figure 2. Total number of male sharp-tailed grouse on 4 leks at Hixon Sharptail Preserve, Washington County, Idaho, 1991-2016.

Table 10. Chukar aerial survey results along Brownlee Reservoir, Southwest Region, 2002-present.

Year	Chukars observed	Chukar groups	Groups per square mile[a]	Chukars per square mile	Chukars per group
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
2006	858	139	11.6	71.5	6.2
2007	506	70	5.8	42.2	7.2
2008	453	61	5.1	37.8	7.4
2009	884	106	8.8	73.7	8.3
2010[b]	781	85	7.7	71.0	9.2
10-year avg.	1,229	104	8.7	103.0	11.6

[a] The survey area is 12 square miles.

[b] 2010 was the last year chukar flights were conducted in Idaho. These data will no longer be available in the future.

Table 11. Chukar aerial survey results on Lucky Peak Reservoir, Southwest Region, 1984-2008.

Year[a] [c]	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					
2006	269	35	3.5	26.6	10.2
2007					
2008	176	17	1.7	17.6	10.6

[a] Years with no data were not surveyed.

[b] The survey area is 10 square miles.

[c] 2008 was the last year chukar flights were conducted at Lucky Peak. These data will no longer be available in the future.

Table 12. Estimated chukar harvest, Southwest Region, 2006-present.

	Check Station				Telephone Survey		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds harvested	Birds per hunter day
2006	70	161	2.3	2.9	8,03	64,071	1.7
2007	57	32	1.5	4.0	6,085	26,246	1.1
2008	57	171	3.0	2.4	5,511	40,412	1.4
2009	25	51	2.0	2.4	5,521	46,574	1.6
2010	45	72	1.6	3.4	5,055	30,866	1.4
2011	35	77	2.2	2.4	6,084	65,586	1.6
2012	44	85	1.9	3.2	5,798	35,783	1.3
2013	25	43	1.7	3.5	4,831	16,663	0.6
2014	15	28	1.9	1.9	4,624	19,405	0.8
2015	20	45	2.3	2.0	5,943	33,167	1.1
10-year average	39	76	2.0	2.8	5,745	37,877	1.3

Table 13. Gray partridge population characteristics and estimated harvest, Southwest Region, 2006-present.

	Production			Telephone Survey		
Year	Miles counted	Birds per mile	Birds counted	Hunters	Birds harvested	Birds per hunter day
2006	520	0.2	96	3,182	18,704	1.0
2007	460	0.02	9	2,329	7,085	0.5
2008	520	0.0	0	1,921	4,364	0.4
2009	520	0.0	0	2,767	11,244	0.6
2010	460	0.07	35	2,813	12,836	0.8
2011	460	0.02	10	2,976	27,445	1.0
2012	520	0.3	144	3,138	19,993	1.3
2013	520	0.1	4	2,091	3,944	0.3
2014	520	0.1	58	1,830	4,751	0.3
2015	430	0.1	29	2,196	10,159	0.7
10-year average	493	0.07	39	2,524	12,052	0.7

Table 14. Estimated turkey harvest, Southwest Region, 2006-present.

Year Hunt	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
2006[b]						
Controlled Spring	2	115	162	51	10.0	509
General Spring			4,662	710	27.5	13,256
General Fall			453	131	8.0	1,057
2007						
Controlled Spring	2	115	182	40	6.25	250
General Spring			4,102	727	18.0	12,874
General Fall			461	167	10.6	1,774
2008						
Controlled Spring	2	135	116	82	3.61	425
General Spring			3,830	580	26.6	11,000
General Fall			123	35	9.4	332
2009						
Controlled Spring	2	135	110	69	6.0	415
General Spring			4,167	763	16.7	12,777
General Fall			1,190	408	11.0	1,471
2010						
Controlled Spring	2	135	104	63	7.4	469
General Spring			3,879	706	16.6	11,749
General Fall			1,251	291	14.3	4,165
2011						
Controlled Spring	2	135	114	101	4.0	409
General Spring			3,571	669	15.6	10,446
General Fall						
2012[c]						
Controlled Spring	2	135	119	93	4.1	389
General Spring			3,331	621	14.9	9,263
Control Fall		145	81	49	3.2	260
2013						
Controlled Spring	2	135	124	95	4.9	469
General Spring			2,537	454	17.7	8,072
Control Fall		145	88	43	6.5	279
2014						
Controlled Spring		175	164	110	10.6	1,168
General Spring			3,458	741	12.2	9,791
Control Fall		145	83	43	6.6	283
2015						
Controlled Spring	3	175	123	126	4.6	545
General Spring			2,342	567	11.4	6,494
Control Fall	2	145				
2016						
Controlled Spring						
General Spring						

[c] No Longer offer general fall hunts in the Southwest Region

Table 15. Turkey translocation history for Southwest Region, 2005-2010.

Year	Sub-species[a]	Release site-GMU	Birds released	New or supplemental release
2005	M	Garden Valley-33	32	S
	M	Bender Creek (Danskin Mts)-39	30	S
2006	M	Cottonwood Creek-39 (JAN)	60	S
	M	Willow Creek-39 (JAN)	25	S
	M	Bender Creek-39 (DEC)	19	S
	M	Cottonwood Creek-39 (DEC)	50	S
	M	Willow Creek-39 (DEC)	30	S
2007	R	Little Banks Island-38 (JAN)	34	S
2007	M	Andrus WMA – 31 (DEC)	157	S
2008	R	Montour – 32 (FEB)	32	S
2008	R	Weiser Bass Pond – 32 (FEB)	23	N
2009	M	Andrus WMA (JAN)	156	S
2010	M	Andrus WMA (JAN)	75	S

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

Table 16. Mourning dove late-summer observation survey results, Southwest Region, 2006 to present.

	Dove routes	
Year	Miles counted	Doves observed/mile
2006	520	3.6
2007	460	5.2
2008	520	3.6
2009	520	4.8
2010	460	4.5
2011	460	6.1
2012	520	6.1
2013	520	4.9
2014	520	5.7
2015	430	6.1

Table 17. Mourning doves banded in Southwest Region, 2006-present.

Year	Sex			Year			
	Male	Female	Unknown	Hatch-year	Adult	Unk	Total
2006	18	8	44	33	31	6	70
2007	56	31	95	64	90	28	182
2008	61	41	67	50	118	1	169
2009	39	26	35	29	71	0	10
2010	32	27	1	13	43	4	60
2011	45	30	18	15	76	2	93
2012	25	13	9	4	41	0	45
2013	27	37	7	4	67	0	71
2014	65	65	20	34	110	6	125
2015	49	29	10	17	71	0	88
Total	479	339	414	358	825	47	1,230

Table 18. Estimated cottontail rabbit and snowshoe hare harvest, Southwest Region, 2006-present.

	Cottontail rabbit		Snowshoe hare	
Year	Hunters	Cottontails harvested	Hunters	Hares harvested
2006	1,201	4,517	78	0
2007	1,192	8,445	188	120
2008	669	2,744	38	19
2009	732	1,288	92	26
2010	770	2,347	83	0
2011	877	1,734	40	0
2012	623	2,781	107	165
2013	587	514	216	0
2014	418	1,336	1	0
2015	830	1,767	124	40
3-year average	612	1,206	97	37

MAGIC VALLEY REGION

Trapping and Translocation

No trapping or translocation took place in the Magic Valley Region for pheasant, California quail, mountain quail, forest grouse, sage-grouse, chukar, or gray partridge during the reporting period. Forty-one nuisance turkeys were trapped near Trapper Creek and released in Goose Creek in Unit 54.

Pheasant

Abstract

Pheasant numbers have declined substantially in the Magic Valley during the past 35 years. 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 have been conducted in the region since 1961 to monitor fall pheasant population trends and forecast hunting seasons, but were discontinued in 2013. The pheasants per mile (PPM) index has declined substantially, averaging 3.36 PPM during the 1960s, 2.10 PPM during the 1970s, 0.77 PPM during the 1980s, and 0.25 PPM from 1990-2012. The 2012 PPM index was higher than the 10-year average (Table 1). Roadside survey data typically reflect higher pheasant densities in the western portion of Magic Valley Region (Gooding, Twin Falls, Elmore, Owyhee, western Jerome, and western Lincoln counties) than the eastern portion (Cassia, Minidoka, eastern Jerome, and eastern Lincoln counties). In the eastern portion of the region, winters are typically more severe and habitat loss has been greater than in the western portion. In 2012, the PPM index was 0.27 on eastern routes and 0.35 on western routes.

Winter sex ratio data was not collected during the 2014-2015 reporting period.

Harvest Characteristics

Both pheasant hunters and pheasant harvest have declined precipitously in the region since the mid-1980s. Since 2006, estimated harvest has declined by 71% and hunter participation has declined by 62% (Table 2).

Release of Pen-reared Pheasants

Pheasant stocking to provide “put-and-take” hunting opportunity occurred at Niagara Springs WMA (1,450 pheasants). One hundred fifty of the pheasants stocked at Niagara Springs WMA were for the youth-only pheasant season. Pheasants are no longer released on Bureau of Reclamation tracts in Minidoka County.

Management Studies

No management studies were conducted during the 2014-2015 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 growing dairy industry in the area. 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 (four-five cuttings instead of three) now than it was 20 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. The Magic Valley Region will continue to pursue habitat improvement efforts through cooperative HIP projects with Pheasants Forever, Farm Bill programs, and the IDFG/BLM Cooperative Wildlife Tracts Program. Providing adequate nesting habitat is currently viewed as the weak link in our habitat recovery efforts.

Quail

Population Surveys

No population surveys were conducted during the reporting period.

Harvest Characteristics

Quail populations in the region exhibit dramatic annual fluctuations in response to weather conditions during the hatch. During 2006-2015, the estimated harvest has ranged from 5,427 birds in 2015 to 38,522 birds in 2006.

Management Implications

California quail in Magic Valley Region are associated primarily with the Snake River and its tributaries. Opportunities to enhance habitat will be pursued through HIP, and through riparian improvement opportunities with the Bureau of Land Management (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

Population Surveys

Ruffed grouse were introduced to the South Hills (GMU 54) during the late 1980s. Although ruffed grouse taken by hunters are frequently checked at check stations, no annual surveys are conducted. On 4 May 2012 a trial drumming route was conducted along the Indian Springs and Oakley-Rogerson roads. Drumming grouse were heard at six of 10 stops.

Harvest Characteristics

Forest grouse (dusky, ruffed, and spruce grouse) hunting has increased in popularity since the 1980s. In 2015, 1,483 hunters reported harvesting 6,308 forest grouse (Table 5).

At 2015 check stations, no forest grouse were reported.

Many forest grouse are taken incidental to other types of hunting and survey data for 2006-2011 show that many hunters do not know what species they have killed. During the 2006-2011 seasons, the number of spruce grouse reported killed in the Magic Valley Region ranged from 249-1,076 birds, and averaged 664 birds. We believe this estimate is unrealistically high because spruce grouse may be found in only a small portion of the region near Galena Summit and probably in the upper South Fork Boise River drainage. We believe that most spruce grouse reported by hunters were probably dusky grouse and were misidentified by hunters. Harvest data would suggest that at least 13% of the forest grouse harvested are misidentified.

Management Implications

No population surveys are presently conducted for forest grouse, but ruffed grouse drumming surveys may be considered in the future in conjunction with research efforts.

Sage-grouse

Abstract

Lek route data suggest sage-grouse populations in the Magic Valley Region exhibited substantial declines in 2007 and 2008 after increasing from 1995-2006. The number of males counted on leks in 2015 was 41% lower than in 2006. While the number of males counted on leks in 2016 was 17% higher than 2015, it was still 26% below the number counted in 2006. Production, indexed from hunter-harvested grouse, was poor in four of the past five years, falling well below the 1962-2012 average of 1.91 juveniles/adult hen. Opening weekend check station data show a precipitous decline in hunter participation since more restrictive hunting seasons were implemented in 1996. Opening weekend participation in 2016 was similar to 2015 which was the lowest level on record. 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.

Population Surveys

Twenty-three lek route surveys were conducted during 2015 and 2016to monitor sage-grouse population trends. Since 2002, grouse numbers have fluctuated from a high of 2,388 males in 2006, to a low of 1,049 in 2010 (Figure 1).

Most leks do not occur on annual routes and surveys are coordinated with federal agency personnel and volunteers. In 2016, more than 70 individuals participated in lek surveys including department biologists, conservation officers, reservists, state and federal land management agency personnel, and citizen volunteers. We were able to complete counts on 671 leks; approximately 60% of the previously known leks identified in the region since 1950. Of the 671 leks visited, 248 (40%) were considered active (>1 male observed). Lek size ranged from 2–121 males and averaged 19 males/lek. During the past five years more than 90% of the identified leks in the region have been surveyed.

Wings from hunter-harvested sage-grouse were collected at check stations and wing barrels to index annual production. From 1962-2012, production averaged 1.91 juveniles/adult female. Production in 2016 was estimated at 0.96 juveniles/adult female, a decrease from 1.12 juveniles/adult female observed in 2015. The juvenile/adult female ratios have been below the 1962-2012 average in 7 of the past 10 years (Table 6).

Harvest Characteristics

In 2015 two check stations (Gooding and Shoshone Basin) were operated on opening weekend (September 19-20). Temperatures for the opener approached 80^{o} F with clear skies. Hot and dry conditions preceded the hunt. Opening weekend participation and harvest were down compared to 2014 which may in part be attributed to reopening the sage-grouse season in the Owyhee County portion of harvest zone 3A (post Murphy Complex Fire). However, all measures of hunter success (harvest, birds/hunter, hours/birds, birds observed/hour) were up in 2015 compared to 2014. From a regional perspective, sage-grouse hunter numbers have been decreasing since 1996. Decreased hunter participation is likely a reflection of lower bird numbers and more restrictive seasons (Table 7).

Management Implications

Lek route data suggest an increasing trend in sage-grouse populations in the region from 1994-2006. Despite good production in 2006 (2.16 juveniles/adult female in the harvest), displaying males counted on lek routes declined by 32% in 2007. Lek route counts declined further in 2009 and to a level 52% lower than in 2006. The cause of the decline is uncertain but wide scale habitat loss, and potentially West Nile virus, were contributing factors. There has been a slight recovery in sage-grouse populations since 2007, but numbers are still 26% below 2006 numbers.

Habitat loss and fragmentation are the primary cause of long-term sage-grouse declines. Fires have consumed more than 1.5 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 increasing trend in sage-grouse numbers from 1995-2006 can be attributed to the recovery of sagebrush communities in some areas such as Thorn Creek, Shoshone Basin, and Kimama. In 2007, the Murphy Complex Fire burned more than 50,000 acres in the Jarbidge area setting back sage-grouse recovery efforts there. 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, Jarbidge, North Magic Valley, and South Magic Valley Local Working Groups.

Sharp-tailed Grouse

Population Surveys

Sharp-tailed grouse leks in Power, Oneida, and Cassia counties were surveyed in conjunction with a research project and trap and translocation efforts up until 2013. On 30 comparable leks, counts declined 34% from 2007 (459 birds) to 2013 (303 birds). No leks are routinely counted by Magic Valley personnel.

Harvest Characteristics

Sharp-tailed grouse harvest in Magic Valley Region is primarily from Oneida and Power counties (Greater Curlew area); although 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

The Idaho 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 1991-2012, 1,405 Columbian sharp-tailed grouse (851 males, 554 females) were trapped in southeast Idaho for reintroduction projects in Idaho, Oregon, Washington, and Nevada. Six hundred six grouse were released in the Shoshone Basin and House Creek areas of Twin Falls County, Idaho, and 765 birds were provided to the other states. During 2013-2014, 39 grouse (25 males and 8 females) were trapped for population augmentation efforts in Washington.

Management Implications

Columbian sharp-tailed grouse numbers are currently strong as a result of the abundant habitat provided through CRP and mountain shrub communities on adjacent BLM and USFS 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. Anecdotal monitoring will continue in the Shoshone Basin and House Creek areas to assess the success of reintroduction efforts.

Chukar

Population Surveys

No surveys for chukar populations were conducted in the Magic Valley Region during the 2014-2015 reporting period. The sample of wings collected from hunter-killed birds was inadequate to allow inference about annual production.

Harvest Characteristics

Estimated chukar harvests in 2003-2006 were the highest recorded in the region during the previous 18 years. In 2006, hunters took an estimated 26,076 birds, more than four times the 1985-2005 average of 5,895 birds annually. Estimated harvests in 2007-2012 averaged 7,234 birds. Estimated chukar harvest in 2015 was 4,319 birds, the lowest estimated harvest in the past 10 years (Table 8). It should be noted harvest within the Magic Valley Region in Owyhee and Elmore counties is included with the Southwest Region data.

Management Implications

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

Gray Partridge

Population Surveys

No population surveys were conducted for gray partridge during the reporting period.

Harvest Characteristics

Estimated harvest from 1985-2015 has ranged from 19,827 birds in 206 to 2,742 birds in 2011, demonstrating the extreme population fluctuations observed in this species. In 2015, the estimated harvest was 6,164 birds (Table 9).

Management Implications

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. The Magic

Valley Region will continue to give priority to habitat enhancement (HIP, IDFG/BLM Cooperative Wildlife Tracts Program, Pheasants Forever) for gray partridge management.

Wild Turkey

Trapping and Translocation

From 1988-2001, 152 Rio Grande turkeys were released at the Big Cottonwood WMA in GMU 54. Since 2004, 147 nuisance turkeys have been trapped and relocated to the Goose Creek and Green Creek drainages in GMU 54 (Table 10).

Harvest Characteristics

From 2003-2016, three spring hunts have been authorized in GMU 54, including a youth-only hunt. Spring turkey hunting opportunity has increased commensurately with the turkey population. Turkey permit levels increased from 12 permits in 2003 to 78 by 2008. In 2014-2015, permits were decreased from 78 to 52 in response to habitat loss from the Cave Canyon Fire. However, spring permits increased in 2016 to a total of 90 (Table 11) as nuisance turkey complaints increased and anecdotal information suggested the population had recovered following the Cave Canyon Fire. From 2010-2012 a 50-permit fall hunt was authorized in the Goose Creek drainage to help reduce the number of nuisance turkeys. The fall hunt was discontinued in 2013.

Management Implications

Opportunities to establish self-sustaining turkey populations in the Magic Valley Region are limited without supplemental feeding during winter. Releases in GMUs 53 and 55 have failed to establish populations. Turkeys near Pine and Featherville in GMU 43 have essentially disappeared because of the severity of winters and lack of a winter food source. It is believed the turkey population in GMU 54 has declined in recent years and substantial habitat was lost in the 2012 Cave Canyon Fire. Winter habitat is the primary limiting factor for turkeys in GMU 54.

Mourning Dove

Population Surveys

Department personnel, in cooperation with USFWS, collected data on one spring call-count route in the Magic Valley Region in 2016.

Doves observed on August roadside surveys have ranged from 1.3 doves/mile in 2000 to 5.1 doves/mile in 2009. Number of doves observed on August routes has trended upward during the past 25 years. From 2000-2012, 4.1 doves/mile were observed and during 1986-1999, 2.4 doves/mile were observed (Table 12). Roadside surveys were discontinued in 2013.

Trapping and Banding

The Magic Valley Region has participated in a statewide effort to trap and band mourning doves since 2003 (Table 13). In 2016 110 doves were banded at multiple locations throughout the region; a slight increase from 2015 when 102 birds were banded. Since 2003, 2,239 doves have been banded in the region. Banding will continue during future reporting periods.

Harvest Characteristics

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

Management Implications

Roadside survey data collected in the 1980s suggest as many as 50% of the doves in the Magic Valley Region migrated out of the area by the opening of hunting season on September 1. The onset of cooler weather, usually in early September, triggers movement of many remaining doves.

Cottontail Rabbits

Population Surveys

No population surveys were conducted during the reporting period.

Harvest Characteristics

No cottontails have been checked at opening weekend check stations since 2002. In 2015, it was estimated that 1,513 hunters harvested 9,147 cottontails in the region (Table 14).

Management Implications

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

American Crow

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

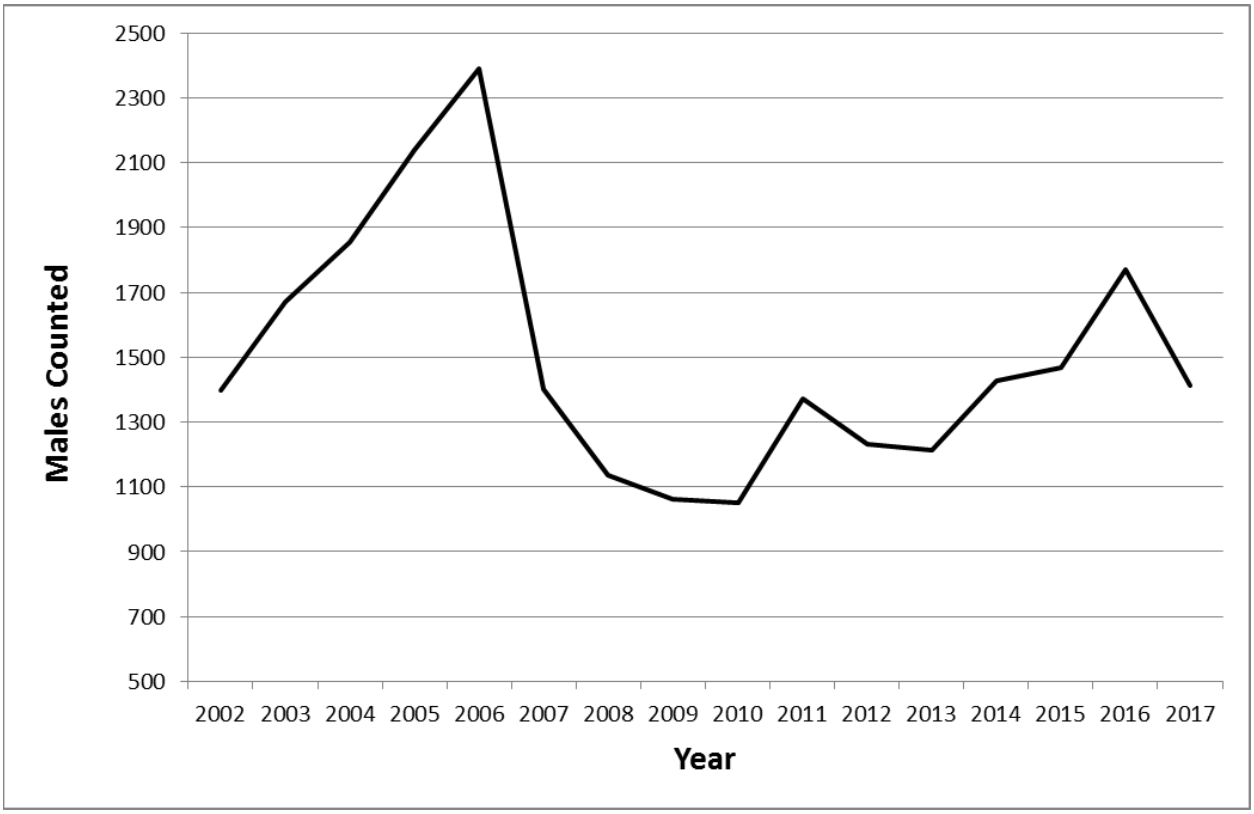

Figure 1. Total male greater sage-grouse counted on 23 lek routes, Magic Valley Region, 2002-present.

Table 1. Pheasant population characteristics and production, Magic Valley Region, 2006-2013.

	Winter sex ratio		Routes		Percent	Juv:10	Brood size	
Year	Hens per cock	*n*	(miles) counted	Birds per mile	unsuccessful females	adult females	*n*	Average
2006			28 (573)	0.25	22	452	6	4.3
2007			28 (573)	0.24	10	467	9	4.2
2008			28 (567)	0.14	38	825	2	5.5
2009[a]			28 (570)	0.11	57	357	3	3.3
			30 (621)	0.13	57	357	3	3.3
2010			30 (620)	0.15	23	569	5	6.4
2011			30 (617)	0.11	37	650	3	6.0
2012			30 (621)	0.32	10	541	17	4.8
2013			n/a	n/a	n/a	n/a	n/a	n/a
10-year average				0.21	26	571	8	5.5

[a] Roadside routes were added in 209. Data is provided for the original surveys alone and with the new surveys added.

Table 2. Estimated pheasant harvest, Magic Valley Region, 2006-present.

Year	Hunters	Birds harvested	Birds per hunter	Birds per hunter-day
2006	8,757	39,964	4.6	0.8
2007	5,628	16,247	2.9	0.6
2008	5,101	16,094	3.1	0.7
2009	3,407	12,787	3.8	0.6
2010	5,021	11,079	2.2	0.5
2011	5,014	15,630	3.1	0.6
2012	4,393	14,352	3.3	0.6
2013	4,082	8,366	2.1	0.4
2014	2,888	9,476	3.3	0.6
2015	3,300	11,655	3.5	0.6
10-year avg	4,759	15,565	3.2	0.6

Table 3. California quail population characteristics and estimated harvest, Magic Valley Region, 2006-present.

	Brood routes		Telephone survey		
Year	Routes (miles) counted	Birds per mile	Hunters	Birds harvested	Birds per hunter-day
2006	28 (573)	0.28	2,686	38,522	2.7
2007	28 (573)	0.31	1,948	15,797	1.8
2008	28 (567)	0.25	2,088	11,049	1.5
2009	28 (570)	0.25	1,122	7,939	1.3
2010	28 (569)	0.25	2,218	14,228	1.2
2011	30 (617)	0.21	1,425	8,965	1.2
2012	30 (621)	0.44	1,612	13,554	1.8
2013	n/a	n/a	1,585	19,642	2.1
2014			1,599	13,231	2.4
2015			1,688	5,427	0.8
10-year avg		0.26	1,797	14,835	1.7

Table 4. Trend of upland game species harvested per 10 hunters checked at stations on opening weekend of the sage-grouse, quail, and partridge season, Magic Valley Region, 2006-present.

Year	Sage-grouse	Dusky grouse	Ruffed grouse	Chukar partridge	Gray partridge	Mourning dove	CA quail	Cottontail/ pygmy rabbit[a]	Hunter numbers
2006	60.0	0.3	0.4	7.1	4.7	1.7	1.5	0.0	1,133
2007	38.2	0.5	0.6	2.2	4.5	1.9	4.5	0.0	641
2008	37.3	0.4	0.7	1.5	2.2	3.1	4.8	0.0	541
2009	43.4	1.4	2.4	6.3	9.4	0.9	1.6	0.0	426
2010	41.1	4.5	1.1	20.6	15.7	0.6	9.1	0.0	350
2011	33.7	0.3	0.0	12.5	6.4	0.0	2.9	0.0	312
2012	40.9	2.7	3.2	0.0	0.0	1.4	0.0	0.0	221
2013	47.2	0	0	0	0	0	0	0	203
2014	63.0	0	0	0	0	0	0	0	159
2015	67.0	0	0	0	0	0	0	0	132
10-year avg	47.2	1.0	0.8	5.0	4.3	1.0	2.4		412

[a] The pygmy rabbit season was closed in 202.

Table 5. Estimated forest grouse harvest, Magic Valley Region, 2006-present.

Year	Hunters	Birds harvested	Birds per hunter	Birds per hunter-day
2006	2,721	7,297	2.7	0.4
2007	2,663	5,716	2.1	0.3
2008	1,718	2,616	1.5	0.4
2009	1,121	4,546	4.1	0.7
2010	1,825	5,285	2.9	0.5
2011	1,401	2,932	2.1	0.4
2012	1,401	8,225	5.9	0.3
2013	1,795	5,433	3.0	0.8
2014	2,465	4,767	1.93	0.6
2015	1,483	6,308	4.3	0.3
10-year avg	1,859	5,313	3.1	0.5

Table 6. Greater sage-grouse production based on wing collections, Magic Valley Region, 2006-present.

Year	Juv:10 females	Juv:10 adults	% unsuccessful females
2006	216	129	69
2007	57	25	57
2008	113	80	72
2009	131	94	55
2010	20	138	56
2011	84	47	91
2012	115	80	67
2013	128	80	72
2014	190	109	58
2015	131	77	64
10-year avg	137	87	64

Table 7. Estimated Greater sage-grouse harvest, Magic Valley Region, 2006-present.

	Check station				Telephone survey[a]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds harvested	Birds per hunter-day
2006	1,03	680	0.7	5.8	4,236	6,407	0.7
2007	598	229	0.4	9.7	1,699	1,286	0.4
2008	491	194	0.4	9.0	1,169	773	0.4
2009	382	185	0.5	7.2	1,106	1,024	0.5
2010	294	144	0.5	5.7	1,068	1,086	0.6
2011	256	105	0.4	8.2	853	644	0.4
2012	199	90	0.5	6.7	667	635	0.5
2013	203	96	0.5	5.7	874	733	0.5
2014	159	63	0.5	8.9	896	685	0.4
2015	132	67	0.5	5.5	1,017	976	0.5
10-year avg	372	185	0.5	7.2	1,386	1,425	0.5

[a] Telephone survey data for 2003 is not available.

Table 8. Estimated chukar harvest, Magic Valley Region, 2006-present.

Year	Hunters	Birds harvested	Birds per hunter	Birds per hunter-day
2006	3,337	26,076	7.8	1.8
2007	2,877	7,910	2.7	0.8
2008	1,030	4,708	4.6	1.6
2009	1,485	9,420	6.4	1.6
2010	1,887	11,767	5.2	1.2
2011	1,549	4,660	3.0	0.6
2012	1,992	6,493	3.3	0.8
2013	1,832	23,477	12.8	1.8
2014	1,645	6,183	3.8	0.6
2015	1,373	4,319	3.2	0.4
10-year avg	1,901	10,501	5.3	1.1

Table 9. Gray partridge population characteristics and estimated harvest, Magic Valley Region, 2006-present.

	Production					Telephone survey		
Year	Routes (miles) counted	Birds per mile	Birds	Brood size	*n*	Hunters	Birds harvested	Birds per hunter day
2006	28 (573)	0.29	163	9.0	6	2,447	19,827	1.1
2007	28 (573)	0.16	92	7.5	11	1,546	5,904	0.7
2008	28 (567)	0.06	31	7.8	4	1,816	6,699	0.7
2009	28 (570)	0.10	56	9.0	3	1,178	3,980	0.6
2010	28 (569)	0.25	145	8.9	7	2,529	18,792	1.2
2011	30 (617)	0.12	70	6.6	8	397	2,742	1.8
2012	30 621)	0.35	198	9.9	14	1,426	8,246	0.8
2013	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2014						2,134	5,917	0.8
2015						1,969	6,164	0.4
10-year avg		0.20	111	7.9	8	1,716	8,697	0.9

Table 10. Turkey translocation history for the Magic Valley Region, 1982-2009.

Year	Sub-species[a]	Release site-GMU	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
2004	R	Goose Creek-54	8	N
2007	R	Green Creek-54	17	N
2008	R	Green Creek-54	64	N
2009	R	Green Creek-54	17	S
2015	R	Goose Creek-54	41	S

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

Table 11. Estimated turkey harvest, Magic Valley Region, 2006-present.

Year Hunt[a]	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
2006						
Controlled	2	32	25	11	9.0	99
Controlled (youth)	1	18	10	6	6.2	40
2007						
Controlled	2	32	27	8		
Controlled (youth)	1	18	16	14		
2008						
Controlled	2	48	39	14	10.2	143
Controlled (youth)	1	30	25	11	9.0	99
2009						
Controlled	2	48	39	14	14.8	207
Controlled (youth)		30	25	13	6.3	82
2010						
Controlled (spring)	2	48	44	17	17.0	205
Controlled (youth)	1	30	30	5	25.0	125
Controlled (fall)	1	50	48	11	2.8	32
2011						
Controlled (spring)	2	48	43	18	10.8	195
Controlled (youth)	1	30	23	8	10.6	85
Controlled (fall)`	1	50				
2012						
Controlled (spring)	2	48	34	7	19.0	133
Controlled (youth)	1	30	28	4	26.5	106
Controlled (fall)	1	50	19	4	17	68
2013						
Controlled (spring)	2	48	36	5	44.2	221
Controlled (youth)	1	30	20	4	29.0	116
Controlled (fall)	1	50	27	5	49.8	249
2014						
Controlled (spring)	2	32	27	6	41.3	248
Controlled (youth)	1	20	17	9	8.7	79
Controlled (fall)[a]	0					
2015						
Controlled (spring)	2	2	32	25	14	
Controlled (youth)	1	1	20	17	10	
2016						
Controlled (spring)	2	60	54	22	11.9	262
Controlled (youth)	1	30	26	9	9.5	86

[a] No controlled hunt offered fall 2014 or subsequent years.

Table 12. Mourning dove August roadside survey results Magic Valley Region, 2005-2012.

	August roadside routes	
Year	Routes (miles) counted	Doves observed/mile
2005	28 (573)	4.1
2006	28 (573)	4.8
2007	28 (573)	5.0
2008	28 (567)	3.4
2009	28 (570)	5.1
2010	28 (569)	3.5
2011	30 (617)	3.1
2012	30 (621)	5.0
7-year average	28.5 (583)	4.3

Table 13. Mourning doves banded in Magic Valley Region, 2006-present.

	Adult					
Year	Male	Female	Unknown	Hatch-year	Unknown	Total
2006	76	17	0	109	1	203
2007	46	21	0	154	6	227
2008	118	40	0	111	6	275
2009	48	5	0	119	0	172
2010	77	15	7	63	2	164
2011	12	1	0	8	0	22
2012	57	22	9	132	7	227
2013	n/a	n/a	n/a	n/a	n/a	92
2014	26	5	6	25	0	62
2015	23	12	21	40	6	102
Total	483	138	43	761	28	1,546

Table 14. Estimated cottontail rabbit and snowshoe hare harvest, Magic Valley Region, 2006-present.

	Cottontail rabbit		Snowshoe hare	
Year	Hunters	Cottontails harvested	Hunters	Hares harvested
2006	1,125	9,164	0	0
2007	475	1,445	106	11
2008	539	1,091	33	27
2009	549	3,291	0	0
2010	80	6,018	35	102
2011	397	2,742	105	98
2012	878	4,694	174	1,338
2013	367	842	27	27
2014	643	2,963	54	55
2015	1,513	9,147	0	0
10-year avg	729	4,140	53	166

SOUTHEAST REGION

Climatic Conditions

Environmental conditions during the critical months of nesting were moderate during the springs of 2015 and 2016, with warmer temperatures and below average precipitation. Summer conditions were extremely dry; with some slight relief in late summer/early fall resulting from short duration thundershowers and cooler temperatures.

Pheasant

Abstract

Subjective evaluation of pheasant numbers indicates relatively stable populations in isolated parts of the Southeast Region. No hunter check stations were operated 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 observed.

Harvest Characteristics

Pheasant check stations are no longer conducted during pheasant seasons in the Southeast Region. The last check station occurred in 2006 at American Falls.

A telephone harvest survey estimated 2,885 hunters harvested 11,253 pheasants in 2014 and 3,738 hunters harvested 14,133 pheasants in 2015 (Table 2). According to survey results, harvest decreased 8.1% from 12,255 birds harvested in 2013 and then increased 25.6% between 2014 and 2015.

Release of Pen-reared Pheasants

There were 2,519 fully-grown game-farm cocks released on the Sterling WMA during fall in 2014 and 2015. Game-farm birds have been released on the WMA historically to provide hunters with additional opportunity. The bag limit for pheasants on the WMA remained two birds. Adults hunting on WMAs where game-farm pheasants were released were required to obtain a WMA pheasant permit.

In addition to pen-reared birds released on Sterling WMA, Department staff worked with sportsmen groups, volunteers, and landowners to maintain and evaluate the effectiveness of pheasant Surrogators® on the Sterling WMA and private property from 2009–2011. The goal of this effort was to supplement current pheasant populations and increase hunter opportunity. To evaluate effectiveness of Surrogators®, one day-old chicks were marked each year (2009–2011)

to better distinguish pen-reared and wild-born individuals from birds reared in Surragators®. Hunter harvest of marked birds from Surragators® was low (< 9%) and was not a cost effective option for the Department compared to releasing game-farmed pheasants. Surragator® use by the Department was therefore discontinued.

Management Implications

Declining habitat quality due to changes in farming practices has resulted in a decline in pheasant numbers in the Southeast Region from levels observed prior to the 1990s. Until the quantity and quality of available habitat increases, pheasant numbers will likely remain below historic levels. Over 40,000 acres have been enrolled in CRP in the Southeast Region during 1985 – 1995 (25% has potential as pheasant habitat), but its effect on pheasant production is unclear at this time. This program was extended for another 10 years beginning in 1997. During the initial 1997 enrollment period, 288,978 acres in the Southeast Region were accepted. It is currently unknown what impact a decrease in CRP acreage in the Southeast Region would have on pheasant populations. The HIP program, initiated by the Department in 1987, also contributes toward increasing available cover and forage by capitalizing on private land development.

Forest Grouse

Population Surveys

Data on age characteristics of forest grouse populations are collected in the Southeast Region from voluntary wing drop barrels placed during annual hunting seasons. Thirteen wing barrels were placed throughout the region during the 2014 and 2015 hunting seasons. Although these data are informative, extreme annual variations in numbers and types of wings obtained make development of explicit conclusions concerning annual harvest or population trends challenging. A total of 39 dusky (blue) and 305 ruffed grouse wings were collected in 2014 and a total of 51 dusky and 295 ruffed grouse wings were collected during 2015 (Table 3).

Harvest Characteristics

In recent years, harvest data of forest grouse has been collected from two sources, the telephone harvest survey and voluntary wing drop barrels. 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 harvest survey data estimated 4,000 hunters harvested 10,174 forest grouse in 2014, and 2,991 hunters harvested 12,061 forest grouse in 2015 (Table 4). According to surveys, harvest in the Southeast Region decreased 21% from 12,902 birds in 2013, and then increased 18.5% between 2014 and 2015. Both years are significantly lower than the 2012 harvest, which was one of the highest on record.

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 an increasing trend in hunters and harvest. Populations of forest grouse can vary widely, based on annual production.

Sage-grouse

Abstract

Estimates of sage-grouse production in 2014 and 2015 were similar to 2013 levels. However, in 2016 sage-grouse production declined to 0.45 juveniles/hen. Numbers of male sage-grouse counted on leks in 2014 were similar to 2013 spring counts, while 2015 counts were slightly lower. In 2016, numbers of males counted on leks increased similar to 2013 counts. Sage-grouse harvest in 2014 decreased compared to harvest recorded in 2013, while harvest in 2015 was higher than both preceding years.

Population Surveys

Lek count routes in recent years have included four leks in Bingham and Power counties, 16 leks in Oneida County (Table 5), 35 leks in Butte and Blaine counties (Table 6), and three leks each in Bear Lake and Caribou counties (Table 7).

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. Following the reopening of the Big Desert in 2002, wing collection has been variable. There were 75, 63, 44, and 59 wings collected in 2012-2015, respectively (Table 8).

The Curlew Grasslands were opened to hunting from 2008-2013, but were closed for the 2014 and 2015 seasons due to declining lek counts. The entire eastern portion of the Southeast Region (or East Idaho Uplands) was closed to sage-grouse harvest in 208 due to inadequate population data. This area includes portions of Bingham, Franklin, and Bannock counties and all of Caribou and Bear Lake counties (Table 8).

Sage-grouse wings were collected in the Southeast Region in both 2014 and 2015 (44 and 59, respectively) (Table 8). The overall ratio of juveniles:10 adult hens was 76 in 2014 and 74 in 2015. This is quite similar to the 80 juveniles per 10 adult hens reported in 2013; however, this production estimate could be confounded by a small sample size.

Harvest Characteristics

A hunter check station has been operated at American Falls on opening weekend of the season since 2008. Hunting effort compared to the years prior to the season closure (1996–2001) has been low. Bag and possession limits and season length have been significantly reduced from

earlier years. Currently, season structure consists of a seven-day, one-bird daily limit, with a two bird possession limit during the third week in September.

Telephone harvest survey estimates indicate 216 hunters harvested 117 sage-grouse in 2014 (0.29 birds per hunter day) and 223 hunters harvested 217 sage-grouse in 2015 (0.49 birds per hunter day; Table 9). These estimates indicate participation decreased from 2013 levels, while harvest was much lower in 2014, but similar in 2015 (to 2013 estimates).

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 204 to determine sage-grouse wintering habitat in the Greater Curlew area.

In 2010, a cooperative research effort was initiated within The Bear Lake Plateau and Valley (BLPV) area. This research provided information on population vital rates (nest success, brood success, and adult survival) and seasonal and habitat use patterns. In 2011, 46 males and 24 females were captured and radio-collared. Twenty-eight males and 13 females were captured and radio-collared during spring 2012.

Management Implications

Production estimates of sage-grouse in 2014 and 2015 were similar to estimates from 2013. However, these estimates are based on small, regional sample sizes, and statewide estimates in 2014 and 2015 suggest a slight increase in production when compared to 2013. Harvest in the Big Desert 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, but in 2008 a restrictive hunting season was re-established following increasing lek count trends. The Curlew Valley hunting season was closed again prior to the 2014 season after lek counts in the area declined. 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.

Local working groups (LWG), consisting of representatives of several interest groups and government agencies, were formed in the late 1990s to examine the status and trend of sage-grouse and their habitat in Idaho, and to offer suggestions for future management. In southeast Idaho, three LWGS Big Desert, Curlew Valley, and East Idaho Uplands remain active, and pursue actions and recommendations that target sage-grouse conservation distribution within the region. In 2003, the Idaho Sage-grouse Advisory Committee was formed, consisting of a representative from each LWG across the state, including the three LWGs in the Southeast Region, as well as interest groups and government agencies. A draft sage-grouse conservation plan was sent out for public comment in March 2006; 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/conserve_plan/ .

Sharp-tailed Grouse

Abstract

Age-ratio data from wings indicated an increase in sharp-tailed grouse production during 2014 compared to 2013 (Table 10). However, data from wings collected in 2015 showed a significant decrease in production. The ratio of juveniles:10 adults was above the recent 10-year average in 2014, but below that average in 2015. Two lek routes in the region were checked in 2014 and 2015. Trapping of 99 sharp-tailed grouse for translocation to Nevada occurred in the Pocatello and Arbon valleys (49 in 2015 and 50 in 2016).

Population Surveys

Wing barrels placed throughout the region provide the majority of wings collected. The Department has also sent out random surveys asking for hunter-harvested wing returns to add to the sample. Data analysis of sharp-tailed grouse wings (301 wings in 2014 and 215 wings in 2015) indicated an increase in the ratio of juveniles per 10 adults between 2013 (82:10) and 2014 (127:10), but a decrease between 2014 and 2015 (47:10; Table 10). The 2014 ratio was higher, but the 2015 ratio was lower than the 10-year average of 95. Two lek routes in the region were surveyed during 2015 and 2016 (Table 11). The Pocatello Valley route decreased from 69 grouse observed in 2014 to 42 grouse in 2015 and 45 grouse in 2016. The Downey route was relatively stable across 2014, 2015, and 2016 with counts of 74, 71, and 72, respectively.

Harvest Characteristics

For the Greater Curlew area, telephone harvest survey estimates indicate 388 hunters harvested 1,183 sharp-tailed grouse in 2014 (1.0 birds per hunter-day) and 373 hunters harvest 785 sharp-tailed grouse in 2015 (0.7 birds per hunter-day; Table 12). In 2013, 513 hunters harvested 1,050 birds, and birds per hunter-day was 0.8.

Outside the Greater Curlew area, telephone harvest survey estimates indicate 486 hunters harvested 1,200 sharp-tailed grouse in 2014 (0.9 birds per hunter-day) and 496 hunters harvest 880 sharp-tailed grouse in 2015 (0.7 birds per hunter-day; Table 12). In 2013, 491 hunters harvested 890 birds, and birds per hunter-day was 0.7.

For the region, telephone harvest survey estimates indicate 872 hunters harvested 2,383 sharp-tailed grouse in 2014 (0.9 birds per hunter-day) and 869 hunters harvested 1,665 sharp-tailed grouse in 2015 (0.7 birds per hunter-day; Table 13). In 2013, 1,004 hunters harvested 1,940 birds, and birds per hunter-day was 0.7.

Management Implications

Currently, the single most important factor affecting sharp-tailed grouse populations in the Southeast Region is believed to be CRP enrollment. During 1985–1997, over 40,000 acres of cropland were 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 the Southeast Region will decrease over the next few years; this is anticipated to have some impact on sharp-tailed grouse.

Trapping and Translocation

During the springs of 2015 and 2016, IDFG satisfied a request from Nevada Department of Wildlife to translocate sharp-tailed grouse from southeast Idaho to the Bull Run Basin in north-central Nevada as part of a range expansion effort. In 2015, 49 birds were translocated (15 males and 34 females) and an additional 22 were fitted with leg bands and released back onto the lek in an effort to obtain harvest information. In 2016, 50 birds were translocated (15 males and 35 females) and an additional 21 were fitted with leg bands but released back onto the lek. This research is ongoing and results will be provided once available.

Chukar

Population Surveys

Few, if any, chukar wings are collected in wing barrels. Chukars are occasionally observed incidental to deer and elk surveys during winter. Little suitable habitat and restricted populations exist within the Southeast Region. Areas known to support limited chukar populations at present are the northeast corner of GMU 70 near Pocatello, the Blackrock area in GMU 71, the east side of Bear Lake in GMU 76, and several portions of GMU 73 near Malad including east of Interstate Highway 15 and the Samaria Mountains. Private, unauthorized releases of pen-raised chukars are frequent occurrences; however, survival of these birds is believed to be extremely low.

Harvest Characteristics

Telephone harvest survey estimates indicate 571 hunters harvested 2,443 chukars in 2014 (1.70 birds per hunter-day) and 470 hunters harvested 571 birds in 2015 (0.35 birds per hunter-day; Table 14). According to the survey, the number of birds harvested increased dramatically between 2013 and 2014 (258% increase), followed by a decrease in harvest in 2015 (76.6% decrease).

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

Data for gray partridge are obtained through wings collected in wing barrels and annual telephone harvest surveys; however, sample sizes are generally small and have not been analyzed to the same extent of other upland game species in the Southeast Region.

Harvest Characteristics

Annual estimates vary widely, due primarily to small sample sizes from the region. Annual telephone harvest surveys indicated that approximately 1,181 hunters harvested 5,020 gray partridge in 2014 (1.05 birds per hunter-day) and 960 hunters harvested 3,070 gray partridge in 2015 (0.41 birds per hunter-day). These data indicate an increase in harvest between 2013 and 2014 (17.8%), followed by a decrease between 2014 and 2015 (38.8%).

Management Implications

Management of these populations will be incidental to other upland game bird species. It is believed CRP has had a positive effect on habitat suitability and presumably gray partridge populations. Telephone harvest data suggest a stable population; however, recent elevated harvest levels (Table 14) and anecdotal reports raise concern for future population status.

Wild Turkey

Abstract

During 2014 and 2015, nine controlled hunts with 620 permits were offered in the Southeast Region. In 2014, 471 hunters harvested 268 turkeys in controlled hunts and 1,243 hunters harvested 519 turkeys during general hunts. In 2015, 413 hunters harvested 233 turkeys in controlled hunts and 1,093 hunters harvested 425 turkeys during general hunts. These data indicate harvest has increased in comparison to the several preceding years. 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 following the initial introduction. No surveys have been conducted in that area since. Even under good snow conditions, surveys provide limited useful data.

Incidental reports indicate increasing numbers and range expansion 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 GMUs 70, 73, 74, 75, and 78, in addition to release areas in GMU 77. In October 2009, turkeys were observed in the northeast corner of GMU 76 and the

northcentral portion of GMU 66A. These turkeys are likely dispersing from the Star Valley in Wyoming. Bird numbers are small and the winters in this area may greatly limit their ability to establish robust populations.

Harvest Characteristics

Following introductions of wild turkeys in GMU 77 from South Dakota, three consecutive spring hunts with five 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 GMUs 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 2006, a general gobbler hunt was initiated for GMUs 73, 74, 75, 77, and 78. In 2004, three controlled spring hunts with five permits each were added in GMU 71. In 2007, there were six controlled hunts with a total of 195 permits available in Southeast Region. In 2008, the controlled hunts were increased to eight, with 395 available permits. Permit levels were increased in some hunts, and two new fall hunts in GMU 71 were instituted to deal with wild turkey complaints and issues. In 2010, permits levels were increased to 470 within the same eight controlled hunts. As of 2015 there are nine controlled hunts with 620 tags.

As estimated by the telephone harvest survey, hunters harvested 618 birds (519 general and 99 controlled) in spring 2014, and 521 birds (425 general and 96 controlled) in spring 2015 (Table 15). Fall harvest was estimated at 169 birds in 2014 (242 hunters) and 137 birds in 2015 (213 hunters).

Trapping and Translocation

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

During winter 2008, 82 turkeys were released in Unit 68A along the Snake River near Firth (Table 16). In March 2013 a total of 18 turkeys were captured in response to nuisance complaints within the city of Pocatello and released at the McTucker area along the Snake River just upstream from American Falls Reservoir in Unit 68A. In February 2015, a total of 60 turkeys were trapped in GMU 77, eight of these turkeys were banded and released on site and 52 turkeys were translocated to the upper Carmen Creek area in the Salmon Region.

Management Implications

Various translocations have occurred within the Southeast Region to establish a harvestable population of wild turkeys. These efforts were successful and turkey numbers remain stable to increasing, with their range and distribution expanding annually throughout the region. The newest challenge in turkey management within the Southeast region is dealing with wild turkey depredation issues and recreational feeding issues, which are often related. In winter 2007 and 2012, depredation hunts were used to deal with some of these issues. Additionally, the population in GMU 71 has grown substantially enough that fall either sex hunts have been

established to reduce population size and associated landowner complaints. Typically, complaints are associated with turkey presence in, on, and around homes rather than crop damage.

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 three established routes in Southeast Region in conjunction with the USFWS (Table 17): however, only one of these was surveyed in 2015 and 2016. 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

The Southeast Region has participated in a statewide effort to trap and band mourning doves since 2003 (Table 18). However, from 2007–2012 no banding occurred in the region. During 203–206, 475 total doves were banded in the Southeast Region. In 2013, banding efforts were again initiated and 242, 162, and 190 doves were banded in 2014, 2015, and 2016, respectively.

Management Implications

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

Rabbits and Hares

Population Surveys

Population data on rabbits and hares is obtained from telephone harvest surveys.

Harvest Characteristics

Sample size tends to be small and estimates of participation and harvest vary widely. Telephone harvest surveys estimated 475 hunters harvested 2,836 cottontail rabbits in 2014 and 1,438 hunters harvested 5,493 cottontail rabbits in 2015. These levels of participation and harvest are substantial increases from 2013 when only 101 rabbits were harvested by 174 hunters. However, these levels of harvest are similar to the long-term averages (Table 19).

Management Implications

In the past, limited data on rabbits and hares have been collected in Southeast Region. It is unlikely 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

Abstract

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

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

		Brood routes[a]						
	Winter sex ratio[b]		Routes (miles counted)	Birds per mile	Percent unsuccessful females	Juv:10 adult females	Brood size	
Year		*n*					*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 (20)	0.04	50	650	7	3.7
1991			10 (20)	0.09	83	180	2	5.5
1992			10 (20)	0.28	55	40	5	8.8
1993	1.5	10	10 (20)	0.01	0	50	1	5.0
1994	1.5	10	10 (20)	0.01	0	0	0	0.0
1995			8 (160)	0.06	0	50	2	5.0
1996			10 (20)	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 observed.
[b] Hens per cock.

Table 2. Estimated pheasant harvest, Southeast Region, 2006-present.

	Check station[a]				Telephone survey[b]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds	Birds per hunter day
2006[b]	136	102	0.8	3.2	3,497	17,812	0.6
2007[c]					4,882	26,048	0.9
2008[c]					4,473	22,889	0.7
2009[c]					3,975	12,727	0.6
2010[c]					4,894	16,729	0.6
2011[c]					4,191	13,234	0.7
2012[c]					3,353	12,954	0.8
2013					3,969	12,814	0.8
2014					2,885	11,253	0.9
2015					3,738	14,133	0.7
10-year average					3,986	16,059	0.8

[a] Check stations were operated on opening weekend only at American Falls and Tilden Bridge.
[b] Only the American Falls check station was operated.
[c] No check stations were operated during 2007-2012.

Table 3. Forest grouse production based on wing collection, Southeast Region, 2006-present.

	Dusky grouse			Ruffed grouse	
Year	*n*	Juv:10 adult females	Juv:10 adults	*n*	Juv:10 adults
2006	35		250	229	218
2007	73		204	432	148
2008	23		77	95	187
2009	26		117	184	360
2010	40		264	268	186
2011	20		123	87	222
2012	260		141	895	255
2013	20		400	218	195
2014	50		212	319	118
2015	50		117	30	173
10-year avg.					

Table 4. Estimated forest grouse harvest, Southeast Region, 2006-present.

Year	Hunters	Birds harvested	Birds per hunter	Birds per hunter day
2006	2,637	7,934	3.0	0.4
2007	4,061	26,037	6.4	0.7
2008	2,954	10,267	3.5	0.2
2009	2,817	8,431	3.0	0.5
2010	3,126	7,144	2.3	0.4
2011	3,752	11,151	3.0	0.3
2012	3,752	29,868	8.0	0.8
2013	4,665	12,902	2.8	0.4
2014	4,00	10,174	2.5	0.6
2015	2,991	12,061	4.0	0.4
3-year avg.	3,885	11,712	3.1	0.5

Table 5. Maximum number of male greater sage-grouse counted on lek routes in Bingham, Power, and Oneida counties, Southeast Region, 2006-present.

Year	Herriott Lake	Jougalard Lake	Rock Lake	Mosby Well #2	Curlew Route[a]	Rockland Route[b]
2006	26	0	55	0	8	132
2007	23	0	36	0	18	117
2008	25	0	37	0	9	94
2009	25	0	31	0	4	86
2010	46	0	63	0	10	75
2011	51	0	76	0	63	95
2012	46	0	63	0	65	71
2013	59	0	56	0	21	59
2014	47	0	55	4	22	53
2015	49	0	41	1	5	49
2016	45	0	52	0	1	37
3-year avg.	47	0	49	2	9	46

[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.

Table 6. Maximum number of male greater sage-grouse counted on lek routes in Butte and Blaine counties, Southeast Region, 2006-present.

Year	Route #1[a]	Route #2[b]	Route #3[c]	Route #4[d]	Route #5[e]	Fingers Butte[f]
2006	110		153		188	309
2007	141		126		180	296
2008	82		119		97	226
2009	109		83		101	183
2010	159	43	118	14	136	370
2011	208	63	171	6	151	314
2012	177	85	92		111	311
2013	175	90	108	38	127	294
2014	20	103	103	16	74	285
2015	178	81	10	0	70	210
2016	218	104	98	30	104	237
3-year avg.	199	96	10	15	83	244

[a] Frenchman's, Detmer's Dugout, Watertank, Quaking Aspen Airstrip, Detmer's, West Big Lake, Big Lake.
[b] East Big Lake, McCarty, Big Lake, Dugout, Rocky Lake.
[c] Sunset Lake, Ryegrass, Prairie, South Crossroads, Crossroads, South Big Lake.
[d] Reynolds, Lava Bluff, Osborne, Pitfall, Wakkinen, Firebomb, Turnaround, Weather Station.
[e] 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.
[f] Six Mile, Wildhorse Butte, Cir. Water Tank, three Red Tanks, Pratt Lake, Pratt Lake S., Coyote Waterhole, Smith Trough #2, Finger's Well Res., Smith Round Tank.

Table 7. Maximum number of male greater sage-grouse counted on lek routes in Bear Lake and Caribou counties, Southeast Region, 2006-present.

Year	Bloomington Bottoms	Bloomington Mine	Sheep Creek	Trail Creek	Slug Creek #1	Slug Creek #2
2006	0	21	56			
2007	0	27	34			
2008	0	21	31			
2009	0	27	38			
2010	50	37	42	0	0	0
2011	25		57	1	0	0
2012	16	12	52	0	0	0
2013	23	8	72	0	0	0
2014	5	14	65	0	0	0
2015	0	27	120	0	0	0
2016	1	30	112	0	0	0
3-year avg.	2	24	99	0	0	0

Table 8. Greater sage-grouse production based on wing collections, Southeast Region, 2006-present.

Year	*n*	Juv:10 females[a]	Juv:10 adults[b]	*n*	Percent unsuccessful females[a]
Power/Bingham (Big Desert) GMU[c]					
2006	155	244	131	77	75
2007	57	115	68	10	50
2008	73	170	87	20	55
2009	72	346	167	14	69
2010	141	276	182	33	49
2011	30	92	67	13	92
2012	67	45	37	40	80
2013	46	84	46	16	43
2014	44	110	76	17	53
2015	59	132	74	19	68
Holbrook (Curlew) GMU[d]					
2008[f]	2	NA	NA	NA	NA
2009[f]	5	NA	NA	NA	NA
2010	8	167	167	3	0
2011	25	40	32	15	80
2012	8	10	60	3	67
2013	17	50	41	10	70
2014	closed				
2015	closed				
Bear Lake GMU					
2004	26	30	136	10	80
2005	17	550	183	6	10
2006	7		60	4	
2007	2	NA	NA	NA	NA
2008[e]	closed				
Southeast Region					
2006	162	261	138	81	75
2007	57	115	68	10	50
2008	75	170	87	20	55
2009	77	320	166	17	73
2010	158	271	187	38	45
2011	56	62	48	29	86
2012	75	49	39	43	79
2013	63	72	44	26	54
2014	44	110	76	17	53
2015	59	132	74	19	68
3-year avg.	55	105	65	21	58

[a] Females = adults + yearlings.
[b] Adults = adults + yearlings.
[c] Big Desert harvest season closed from 1996-2001.
[d] Harvest closed in 2002, then reopened in 2008 and closed again in 2014.
[e] Harvest closed in 2008.
[f] Inadequate sample size.

Table 9. Estimated greater sage-grouse harvest, Southeast Region, 2006-present.

		Check station				Telephone survey		
Year	Daily bag[a]	Hunters	Birds	Birds per hunter	Hours per bird	Hunters	Birds	Birds per hunter day
2006	1	83	61	0.7	3.9	305[b]	397	1.3
2007	1	84	13	0.2	10.6	342[b]	264	0.3
2008	1	53	24	0.5	9.6	167[c]	209	0.4
2009	1	55	19	0.4	9.6	378	340	0.5
2010	1	70	20	0.3	8.7	517	747	0.7
2011	1	28	10	0.4	8.7	351	211	0.3
2012	1	43	19	0.4	7.2	336	276	0.4
2013	1	46	22	0.5	5.2	299	205	0.3
2014	1	48	21	0.4	8.0	216	117	0.3
2015	1	45	12	0.3	15.7	223	217	0.5
3-year avg.	1	46	18	0.4	9.6	246	180	0.4

[a] The Curlew Grassland was closed to harvest in 2002. The season opened in 2008 followed by a closure in 2014

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

[c] Includes only Zone 5A (curlew area) which reopened to hunting in 2008 (closed again in2014), while Zone 5 closed in 2008 due to lack of population data.

Table 10. Sharp-tailed grouse production based on wing collections, Southeast Region, 2006-present.

Year	Juveniles:10 adults[a]	*n*
2006	166	263
2007	65	221
2008	102	297
2009	114	370
2010	81	609
2011	59	384
2012	103	264
2013	82	349
2014	127	301
2015	47	215
10-year average	95	327

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

Table 11. Maximum number of sharp-tailed grouse counted on lek routes in Oneida, Power, and Bannock counties, Southeast Region, 2006-present.

Year	Arbon route[a]	Curlew route[b]	Pocatello Valley route[c]	Rockland route[d]	Downey route[e]
2006			62		74
2007			102		110
2008			53		99
2009			42		108
2010			65		107
2011			77		106
2012			71		88
2013[f]			59		89
2014[f]			69		74
2015			42		71
2016			45		72
3-year avg.			52		72

[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
[f] Trapping occurred on some of these leks for translocation to Nevada

Table 12. Estimated sharp-tailed grouse harvest Greater Curlew area, Southeast Region, 2006-present.

	Greater Curlew area[a]				
Year	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2006	697	1,839	1,905	2.6	1.0
2007	647	1,637	1,715	2.5	1.0
2008	618	1,509	1,825	2.4	0.8
2009	642	1,501	1,779	2.3	0.8
2010	645	2,154	1,724	3.3	1.3
2011	545	982	1,352	1.8	0.7
2012	545	1,510	1,417	2.8	1.1
2013	513	1,050	1,354	2.0	0.8
2014	388	1,183	1,185	3.1	1.0
2015	373	785	1,075	2.1	0.7
3-year avg.	425	1,06	1,205	2.4	0.8
	Outside the Greater Curlew area[b]				
2006	928	2,288	2,698	2.5	0.8
2007	796	1,612	1,954	2.0	0.8
2008	746	1,463	2,225	2.0	0.7
2009	735	2,123	2,130	3.0	1.0
2010	671	2,165	2,041	3.2	1.1
2011	510	708	1,173	1.4	0.6
2012	630	1,424	1,952	2.3	0.7
2013	491	890	1,356	1.8	0.7
2014	486	1,200	1,385	2.5	0.9
2015	496	880	1,354	1.8	0.7
3-year avg.	491	990	1,365	2.0	0.8

[a] Sharptail grouse reporting Zone 1.
[b] Sharptail grouse reporting Zone 2.

Table 13. Estimated sharp-tailed grouse harvest, Southeast Region, 2006-present.

	Telephone survey		
Year	Hunters	Birds	Birds per hunter day
2006	1,625	4,127	0.9
2007	1,443	3,249	0.9
2008	1,364	2,972	0.8
2009	1,378	3,624	0.9
2010	1,316	4,319	1.2
2011	1,055	1,690	0.7
2012	1,175	2,935	0.9
2013	1,04	1,940	0.7
2014	874	2,384	0.9
2015	869	1,665	0.7
3-year avg.	916	1,996	0.8

[a] Sharptail grouse reporting Zones 1 & 2.

Table 14. Estimated gray and chukar harvest, Southeast Region, 2006-present.

	Gray partridge			Chukar		
Year	Hunters	Birds	Birds per hunter day	Hunters	Birds	Birds per hunter day
2006	829	3,069	1.0	274	825	0.5
2007	1,112	5,640	1.0	517	1,505	0.6
2008	1,095	3,257	0.5	589	1,006	0.1
2009	1,343	4,434	0.4	504	894	0.4
2010	1,738	7,818	0.5	801	2,358	0.7
2011	1,172	4,370	0.5	427	1,432	0.4
2012	1,467	8,140	0.8	485	1,366	0.4
2013	982	4,262	1.1	475	683	0.3
2014	1,181	5,020	1.1	571	2,443	1.7
2015	960	3,070	0.4	470	551	0.4
3-year avg.	1,041	4,117	0.9	505	1,226	0.8

Table 15. Estimated turkey harvest, Southeast Region, 2006-present.

Year Hunt	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
2006						
Controlled	6	120	98	28	15.0	419
General			1,558	363	16.0	5,826
2007						
Controlled	6	120	103	33	11.0	362
General			1,751	524	12.0	6,331
2008						
Controlled	8	395	298	168	15.4	1,10
General			1,798	343	6.6	5,294
2009						
Controlled	8	395	312	176	7.1	1,258
General			1,106	405	12.2	4,953
2010						
Controlled	8	470	371	178	8.4	1,500
General			1,283	299	15.0	4,485
2011						
Controlled	8	470	337	143	11.1	1,336
General			876	287	10.8	1,719
2012						
Controlled	8	470	191	84	12.0	721
General[b]			425	163	12.0	1,443
2013						
Controlled	9	520	385	218	7.1	1,550
General[b]			687	214	12.5	2,671
2014						
Controlled	9	620	471	268	10.9	2,917
General[b]			1,243	519	7.4	3,851
2015						
Controlled	9	620	413	233	7.4	1,622
General[b]			1,093	425	8.2	3,495

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

[b] No general hunts offered fall 2012/2013.

Table 16. Turkey translocation history, Southeast Region, 1982-2015.

Year	Sub-species[a]	Release site	Birds released	New or supplemental release	GMU
1982	R	Snake River	36	N	68A
1984	R	Snake River	28	N	68A
1990	M	Snake River	14	S	68A
1993	M	Bear River	20	N	77
1994	M	Snake River	64	S	68A
	M	Bear River	32	S	77
1999	U	Deep Creek - Bear River	15	S	77
2000	U	Oneida Narrows	50	S	77
2001	U	Portneuf Range	136	N	71
2003	H	Snake River,	42	S	69
2008	H	Snake River,	82	S	68A
2013	U	McTucker,	18	S	68A
2015	H	Upper Carmen Creek, ID vicinity GMU21A	52	S	21A

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

Table 17. Mourning dove call-count survey results, Southeast Region, 2006 to present.

	Coo-count routes	
Year	Routes counted	Doves heard/mile
2006	3	0.8
2007	3	0.6
2008	3	0.8
2009	3	2.5
2010	0	n/a
2011	3	1.5
2012	3	0.9
2013	3	0.7
2014	0	n/a
2015	1	0.3
2016	1	0.5

Table 18. Mourning doves banded in Southeast Region, 2006-present.

	Adult					
Year	Male	Female	Unknown	Hatch-year	Unknown	Total
2006	9	59	20	9	9	106
2007	0	0	0	0	0	0
2008	0	0	0	0	0	0
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	71	27	2	74	1	175
2014	90	49	2	96	0	242
2015	60	32	10	58	2	162
2016	75	47	7	61	0	190
Total	305	214	41	298	12	875

Table 19. Estimated cottontail rabbit harvest, Southeast Region, 2006-present.

Year	Hunters	Harvest	Days	Rabbits/hunter day
2006	297	2,359	1,748	1.3
2007	363	1,996	2,226	0.9
2008	656	4,859	2,867	1.7
2009	548	2,283	4,670	0.5
2010	1,225	5,811	4,687	1.2
2011	501	332	1,833	0.2
2012	886	3,428	5,040	0.7
2013	174	101	488	0.2
2014	475	2,836	2,179	1.3
2015	1,438	5,493	3,898	1.4
3-year avg.	696	2,810	2,188	1.0

UPPER SNAKE REGION

Climatic Conditions

The summer of 2014 and 2015 exhibited drought conditions throughout most of the region. The spring precipitation was below average for both these years and summer range saw marginal grass growth. Most forbs and grasses cured out early in the summer due to little or no precipitation. The winter of 2014-2015 was near average with some colder temperatures persisting in late January and early February. Low-elevation snow had receded by late March with high-elevation snow lasting into mid-April. The winter of 2015-2016 started off with good snow pack but most snow left by end of February at lower elevations.

Trapping and Translocation

No Department trapping or translocation took place in Upper Snake Region for pheasant, forest grouse, sharp-tailed grouse, chukar, gray partridge, or turkey during the reporting period. Sage-grouse were trapped and marked for a BLM study around Sand Creek Wildlife Management Area in spring of 2015 and 2016.

Pheasant

Population Surveys

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

Harvest Characteristics

No check stations were operated during the 2014 or 2015 pheasant season (Table 1).

A mail-in and telephone survey for upland game estimated that 1,165 hunters harvested 4,807 pheasants in 2014 (Table 1). The estimated harvest was 0.64 pheasants per hunter day. In 2015, the same type of survey estimated that 1,488 hunters harvested 5,034 pheasants. The estimated harvest was 0.88 pheasants per hunter day.

A special youth hunt area of 182 acres was identified on the south agricultural field at Market Lake WMA. This area has been maintained for youth hunting since the 2004 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 moderate to heavy use by youth pheasant hunters and was well received by the hunting public. There is also a 50-acre youth hunting area at Mud Lake WMA; on the east section of the agricultural fields, north of the lake. This area is also regularly used by youth hunters, but there seems to be yearly confusion by adults that think the area is only youth-only during the youth only hunt (i.e., the week prior to general season opening).

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, Deer Parks 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.

Release of Pen-reared Pheasants

Adult roosters were purchased from a contractor and released on Department lands in the Upper Snake Region. Eight hundred and fifty pheasant cocks were released at Mud Lake WMA, 922 at Market Lake WMA, and 627 at Cartier Slough WMA during the 2014 and 2015 hunting season. Two releases were made weekly on each WMA throughout the pheasant hunting season. Adult hunters hunting on WMAs where farmed pheasants are released are required to obtain a WMA pheasant permit.

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. In 2014, a portion of the Marty acquisition on Mud Lake WMA was set aside as a wildlife preserve and pheasant hunting is not allowed in here. This is a riparian area along Mud Lake.

Forest Grouse

Population Surveys

Forest grouse populations are not sampled in the 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. So few forest grouse wings were collected at check stations, wing barrels, or turned in to the Department during the 2014 and 2015 season that juvenile:adult ratio could not be obtained.

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 typically taken in conjunction with sage-grouse hunting. Significant reductions in sage-grouse hunting opportunity occurred beginning in 1996. Sage-grouse hunting opportunity was increased in 208 (change from 1-bird bag to 2-bird bag in much of the region), and hunter numbers at check stations also increased. However, hunter numbers still did not approach those of the late 1980s and early 1990s. Check station data have been used to calculate an index of forest grouse per 10 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. Very few (3) forest grouse wings were collected at sage-grouse check stations in 2014 or 2015 (Table 2).

The 2014 statewide telephone survey estimated 2,824 hunters harvested 6,874 forest grouse in the Region. The 2014 estimated forest grouse harvest per day was 0.6. The 2015 statewide telephone survey estimated 2,731 hunters harvested 3,603 forest grouse in the Region. The 2015 estimated forest grouse harvest per day was 0.45.

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 weekend of sage-grouse season has varied between 0 and 60 with a mean of 21. Telephone harvest survey estimates also vary widely with an estimated harvest of 23,213 forest grouse in 2001 to 7,219 harvested in 2005.

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 the Upper Snake Region in sagebrush-steppe habitat. Sixteen lek routes were counted in 2014 and 2015. Three routes (Lidy, Market Lake, and Lower Big Lost) were discontinued in 2004 to reduce workloads and place more emphasis on obtaining better quality data for routes counted; although the Lidy route was re-established in 2007 and the Market Lake route was run in 2009, 2013 and 2014. The 16 routes now counted consistently (not including Market Lake) provide a good distribution of routes in the different sagebrush types, precipitation regimes, and elevations across the region. Lek counts from 1983 through 2016 are

displayed in Table 3. In addition to these routes, 199 other leks were monitored for use in 2015 and 2016.

The juvenile to adult female ratio is determined from hunter-harvested sage-grouse wings. These data indicate production improved every year from 2007 through 2010, declined until 2013 and have showed an increased to 2015 (Table 4).

Harvest Characteristics

In the Upper Snake Region, 2 check stations were run to monitor sage-grouse harvest characteristics; previously the Upper Snake region had conducted 3 check stations. The Highway 26 check station was abandoned because of low hunter numbers. Check station data since 1996 reflects the reduced bag/possession limits with fewer hunters checked and fewer grouse harvested on opening weekend (Table 5). However, the sage-grouse season in much of the Upper Snake Region was increased from a 1-bird daily bag, 7 day season to a 2-bird daily bag, 23 day season for 2008 and 2009. The season was again reduced to a 1-bird daily bag, 7 day season in 2010; birds per hunter was lower and hours per bird harvested increased in 2010 relative to 2009.

Starting in 2000, sage-grouse and/or sharp-tailed grouse hunters were required to purchase a validation on their hunting license, allowing the Department to more accurately survey these hunters and request wings from harvested birds. A statewide survey conducted for the 2014 season estimated 1,024 hunters harvested 1,071 sage-grouse in the Upper Snake Region (Table 5). The estimated sage-grouse harvest per day in 2014 was 0.42. In 2015 there was a decrease with 905 estimated hunters harvesting 1,005 sage-grouse in the Upper Snake Region. The estimated sage-grouse per day increased to 0.5. Estimates from the survey since 2000 are not comparable with the telephone surveys done prior to 1996.

In 2010, the Department surveyed sage-grouse hunters statewide to determine hunter participation and harvest throughout the season relative to opening weekend. More hunters hunted opening weekend than hunted after opening weekend in harvest zones 6, 7C, 7D, and 8B. Additionally, more sage-grouse were taken on opening weekend than after. Traditional perception is that most sage-grouse hunting and harvest occurs on opening weekend of sage-grouse season. The 2010 data suggest this was the case, although the 2009 and 2008 data suggested that hunters spent more days and harvested more sage-grouse after opening weekend than on opening weekend.

Habitat Conditions

Sage-grouse habitat continues to be altered by agriculture, fire, and human developments throughout the region. Reduced numbers of sage-grouse resulting from these habitat losses are expected to occur into the future.

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 was published in a separate research

completion report in 2006 (W-160-R-35-53.doc) and is available at the Department Headquarters office in Boise. The population at Sand Creek desert has had GPS and VHF collars placed on male and female sage-grouse in 2014 and 2015. This is a study in conjunction with BLM and IDFG to look at habitat use and fuel management by BLM.

Management Implications

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

The BLM, USFS, U.S. Sheep Experiment Station, and INL 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 the past several 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. Surveillance and cooperation with other agencies and private landowners needs to be continued to reduce sagebrush conversion and fragmentation and to improve grazing management.

The Upper Snake LWG, a group of federal and state agency personnel, sportsmen, ranchers, and landowners from the 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 10-15 over the past 5 years. In 2006, Upper Snake LWG members reviewed and commented on the statewide sage-grouse conservation plan, which legitimized their local plan. The Upper Snake LWG has commented on numerous development and habitat manipulation projects that had the potential to impact sage-grouse populations in the region and have received Office of Species Conservation funding for many research and management project designed to improve sage-grouse habitat, populations, or data collection.

In February 2007, 2 additional sage-grouse LWGs were formed. The Eastern Idaho Uplands LWG (South of the South Fork Snake River and East of I-15 within the region) and the Big Desert LWG (South of Highway 20/26 and west of I-15 within the region) have portions of their area boundaries within the Upper Snake Region. Both groups have had good public and agency participation and recently finished drafting their LWG plans.

Sharp-tailed Grouse

Population Surveys

Six sharp-tailed grouse lek routes were surveyed in the region during 2014 and 2015 (Table 6). We established a new lek route in the Sand Creek area (Chokecherry route) for the 2009 lek season to replace the Grassy route, which was mostly-enclosed in the Big Grassy private elk enclosure during 2006. We plan to continue to monitor the 6 routes monitored during 2014 and

2015 with exception to the Ozone route. This route will be omitted or at least redesigned to better monitor sharp-tailed grouse in this area in the near future.

Production

The Department made a significant effort to improve our sample of wings collected from harvested sharp-tailed grouse on the Sand Creek and Tex Creek areas during the 2009 season. We placed additional, more appealing and easy to use, wing collection kiosks throughout these areas. Established kiosks along with wings mailed-in to the department resulted in the collection of 282 wings. Analysis of the wings indicated 161 juveniles:10 adults for 2014 and 147 juveniles:10 adults for 2015 (Table 7).

Harvest Characteristics

Trends in sharp-tailed grouse harvest 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 sharp-tailed grouse season has opened two weeks later than 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.

Starting in 2000, sage-grouse and/or sharp-tailed grouse hunters were required to purchase a validation on their hunting license, allowing the Department to more accurately survey these hunters and request wings from harvested birds. A statewide survey conducted for the 2014 season estimated 701 hunters harvested 1,115 sharp-tailed grouse (Table 8). The estimated sharp-tailed grouse harvest per day in 2014 was 0.6. In 2015, the estimated number of hunters was 783 with a harvest estimate of 1,679, and 0.7 sharp-tailed grouse harvested per day. These estimates are not comparable with the telephone surveys done prior to 1996.

Habitat Conditions

Lands enrolled in CRP in Bonneville, Bingham, Teton, Madison, and Fremont counties benefit sharp-tailed grouse. Increased distribution of sharp-tailed grouse during the lek season has been documented, and they have been observed wintering in areas enrolled in CRP, especially in Fremont, Madison, and Teton counties. In 2006, the Department worked with the NRCS and a private landowner in Teton County to establish 652 acres of CRP for sharp-tailed grouse habitat. Numerous habitat projects, aimed at improving mule deer habitat in the Upper Snake Region, were conducted in 2011. Many of these projects also have the potential to benefit sharp-tailed grouse (see 2011 Habitat District Annual Reports for additional information).

Lek Surveys

Two wildlife technicians were hired by a BLM-IDFG Cooperative Cost Share Project to conduct a sharp-tailed grouse lek survey in portions of Bonneville, Teton, and Fremont counties during

April and May 2008. Much of this land was enrolled in the federal CRP farm program. Severe and extended winter weather conditions hampered early search efforts. The accessible portion of approximately 90,632 hectares was surveyed and 16 new sharp-tailed grouse leks were identified. The dominant land use in which grouse were observed was land enrolled in CRP, but leks were typically found in close proximity to native shrub communities. The dominant shrub community adjacent to identified leks consisted of big sagebrush with chokecherry and aspen on north facing slopes and in draws. The average number of grouse observed on a lek was 6.8 with a maximum of 26 and a minimum of 2.

Due to the poor weather conditions that occurred during the 2008 lek search effort, lek searches were conducted again in spring 2010, in portions of Fremont and Teton counties that were inaccessible in 2008. Technicians searched for leks within a 92,000 acre portion of these counties, from just south of the Teton River up to the Falls River. Eighteen new leks were identified, with an average of 7.6 birds/lek (range = 2-17 grouse). Habitat characteristics of these lek sites was very similar to those found during the 2008 effort, with all 18 leks occurring on private land comprised of CRP grasses or agriculture.

Management Implications

Sharp-tailed grouse production was low from 1992-1994, 2000-2001, and 2003-2005. Unfavorable weather conditions may be responsible. Drought conditions prevailed throughout the spring and summer in 1992, 2003, and 2007, while 1993 and 1994 were abnormally cool and wet. Production, based on wing analysis, improved markedly from 1995-1999, but has been relatively low since. These fluctuations may also be the result of small wing data sample size. The newer lek routes in the Teton Valley, Sand Creek desert, and GMU 69 will provide an opportunity to monitor sharp-tailed grouse breeding populations in these areas. The Ozone route in GMU 69 is also important to monitor the effects of wind towers on the sharp-tailed grouse in that area. Some of these leks have been converted to housing or wind tower pads. No grouse have been at these leks for 4+ years and the average has gone down considerably with only 8 birds counted in 2015 (Table 6). Although the 2008 and 2010 lek search projects were not as successful as the 2002 and 2003 efforts in finding new leks, the projects reaffirmed the importance of CRP lands to sharp-tailed grouse and increased our knowledge about the distribution of sharp-tailed grouse across the Upper Snake Region. The students at BYU-Idaho have been attempting to visit historic leks on the Rexburg bench in Madison County. NRCS biologists are also visiting historic leks to determine occupancy for CRP SAFE acres.

Chukar

Population Surveys

No chukar production data were collected during this reporting period. No wings were collected in 2014 and 5 were collected in 2015 at check stations Wing barrels failed to produce any and none were turned into to the Department during the 2014 and 2015 season, making any estimate of production impossible.

Harvest Characteristics

A telephone survey estimated 137 hunters harvested 1,097 chukars in 2014 with 2.08 birds harvested per day (Table 9). 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 2014. In 2015, telephone survey estimated 70 hunters harvested 5 chukars with 0.04 birds harvested per day. A total of 5 wings were collected at check stations in 2015.

Management Implications

Chukar are not common in the 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, lower Birch Creek valleys, and a few reported on Tex Creek WMA. These populations are well established but are susceptible to periodic weather-related declines.

Gray Partridge

Population Surveys

No population trend data were collected for this reporting period. Three gray partridge wings were collected at check stations, wing barrels, or turned in to the Department during the 2015 season. No wings were collected in 2014. Sample sizes are too small for a good estimate.

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 harvest survey. No partridge were checked in the Upper Snake Region in 2014 and 5 wings were collected in 2015 (Table 10). It should be noted that there has been a reduction in check station participation since 1996, resulting from restricted sage-grouse hunting opportunity in the region. However, gray partridge harvest estimates during 2007-2010 were based on a small sample of survey respondents, which likely resulted in fairly dramatic swings in estimated hunter numbers and harvest between years.

Habitat Conditions

Habitat improvement projects sponsored through HIP and Pheasants Forever indirectly benefit gray partridge. Cost-share seeding of grass/forb mixtures provided by lands enrolled in CRP 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 more able than chukar to survive harsh winter conditions, 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; 2 or more years of good production can result in a dramatic increase in numbers. This may have been the case from 2004-2007, when estimated harvest of gray partridge increased steadily. The prolonged winter of 2007-2008 and 2010-2011 may have had a negative impact on gray partridge numbers for the 2008 hunting season, while the last 5 winters have been relatively mild and harvest estimates subsequently increased such as in 2014 and 2015.

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, the lower Henrys Fork, the lower Falls River, the Teton River in the Teton Basin, the Snake River upstream of Roberts, and along the Big Lost River south of Mackay.

Harvest Characteristics

Three hundred permits (50 were youth-only) were offered for Controlled Hunts which included the entire region, in spring 2014 and 2015. There were 187 hunters with a harvest estimate of 52 turkeys harvested in 2014 and 279 hunters estimated harvesting 80 turkeys in 2015 (Table 11). Beginning in fall 2008, a fall youth-only controlled turkey hunt was offered throughout the Upper Snake (Controlled Hunt Area 908). Fifty permits were offered in 2014 and 2015, resulting in an estimated 39 youth that actually hunted both years and a harvest of 11 and 6 turkeys, respectively (Table 12).

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 13).
Fifty-nine Merriam's turkeys 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 GMUs 63A, 67, and 69 since winter 2000-2001. Several of the GMU 63A releases were in the same general vicinity as the turkeys released during 1984 and 1988. The previous translocations were numerically small (12-16) and

involved the Rio Grande subspecies; they were unsuccessful in establishing a population, and some evidence indicated that inadequate winter food was the primary limiting factor.

Depredation

There was 1 turkey depredation complaint reported to the Upper Snake Region in 2015. A total of 24 tags were offered for depredation hunts for beardless birds only.

Management Implications

Turkey hunter success in the region remains relatively low, although success increased for the 2009 and 2010 season and more recently in the 2014-2015 season. Hunter success on spring-controlled hunts in 2015 was 25%. Turkey harvest fell to 23% in 2011 following a severe winter. Anecdotal information from hunters and department staff indicate the severe winter of 2010-2011 may have reduced the turkey population in the Upper Snake Region. Since then turkey populations have rebounded with hunters increasing success rates and observing more birds.

Mourning Dove

Population Characteristics

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

Harvest Characteristics

No doves were checked at check stations on opening weekend of the 2014 sage-grouse season and 1 was checked in 2015. Harvest surveys have not been conducted since 1996. Hunters report harvest directly to USFWS.

Trapping and Banding

The Upper Snake Region has participated in a statewide effort to trap and band mourning doves since 2003 (Table 14). In 2014 and 2015, 211 and 251 doves were banded at two sites, respectively. A total of 1,294 total doves were banded in the region between 2003 and 2015.

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 hunting season opener (September 1) or shortly thereafter. Management efforts are aimed at minimizing sportsmen/landowner conflicts, and improving habitat indirectly through HIP (e.g., 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 season closed, leaving only cottontail rabbit and snowshoe hare 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 the Upper Snake Region. A statewide survey of rabbit hunters estimated 477 hunters harvested 1,997 cottontail rabbits in Upper Snake Region during 2014 (Table 15). The survey also reported 142 hunters harvested 91 snowshoe hare in the Region in 2014. In 2015 there was a dramatic rise in all rabbits across Eastern Idaho. Jackrabbit numbers were documented with agriculture depredations and INL biologists estimated route numbers to be close to 1980's population levels. There were more cottontail rabbits on this survey route as well. Cottontail harvest in 2015 increased to 4,764 with 469 hunters reporting (Table 15). This is over double the harvest/hunter as in 2014. Snowshoe hare harvest was also up at 171 harvested by 58 hunters. Rabbit and hare harvest estimates are based on a small sample of survey respondents; therefore, estimates will likely vary significantly from year-to-year based on the reporting of one or a few individuals. Other than some trend surveys on INL property, no production or population information is collected on rabbit or hare populations.

American Crow

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

Table 1. Estimated pheasant harvest, Upper Snake Region, 2006-present.

	Check station				Telephone survey		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds	Birds per hunter day
2006[a,b]					1,523	4,869	0.8
2007[a,b]					1,662	4,960	0.8
2008[a,b]					1,730	5,894	0.7
2009[a,b]					1,744	5,237	0.7
2010[a,b]					1,374	6,419	0.9
2011 [a,b]					1,039	1,252	0.5
2012 [a,b]					1,488	5,056	0.6
2013					1,269	5,325	1.3
2014					1,165	4,807	0.6
2015					1,488	5,034	0.9
3-year avg.					1,307	5,055	0.8

[a] Check station not operated on opening weekend.
[b] Harvest data from the telephone/mail survey includes wild, stocked, and private shooting preserve pheasants in the total.

Table 2. Estimated forest grouse harvest, Upper Snake Region, 2006-present.

	Check station					Telephone survey		
		Number of grouse			Forest grouse/10 hunters		Birds harvested	Birds per hunter day
Year	Hunters[a]	Blue	Ruffed	Total[b]		Hunters		
2006	553	0	0	0	0.0	4,259	12,217	0.5
2007	490	4	1	5	1.0	3,202	14,169	0.4
2008	660	0	17	17	2.6	2,503	10,641	0.5
2009	651	4	12	16	2.5	4,543	13,590	0.5
2010	446	4	7	11	2.5	2,120	7,951	0.6
2011	285	4	12	16	5.6	2,287	5,166	0.9
2012	275	3	0	3	1.0	2,287	12,195	0.8
2013	313	0	0	0	0.0	4,224	18,156	1.0
2014	0	0	0	0	0.0	2,824	6,874	0.6
2015	342	2	1	3	0.01	2,731	3,603	0.5
10-year average	402	2	5	7	2.0	3,098	10,456	0.9

[a] Number of hunters includes those hunting for forest grouse, sage-grouse, and partridge.
[b] Total includes those forest grouse checked that were not classified to species.

Table 3. Male greater sage-grouse counted on lek routes, Upper Snake Region, 2007-present.

	Lek route[a]																		
Year	LBC	RR	J	ML	LL	L	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
2007	133	182	327	276	79	278	114	70	195		296	157	44	73	10		107	79	2,510	157
2008	67	74	166	157	79	530	79	59	77		297	110	35	105	106		26	60	2,027	127
2009	62	108	187	136	143	191	84	48	109	8	280	77	39	87	125		61	43	1,780	111
2010	54	97	223	124	95	314	79	37	128		279	79	31	99	119		44	39	1,841	115
2011	50	10	196	163	80	271	112	53	77		208	118	43	109	63		66	29	1,433	102
2012	52	147	180	203	101	127	86	39	138		264	83	28	107	63		54	32	1,704	107
2013	48	111	77	211	104	109	87	57	110		165	76	26	110	53		36	27	1407	88
2014	64	452	179	141	99	79	84	54	82		232	45	36	141	55		37	26	1,506	94
2015	82	182	149	130	105	75	95	32	115		171	7	26	?	76		72	72	1,389	93
2016	123	139	138	159	89	110	108	33	116		201	26	35	?	115		64	87	1,543	103
10-year Avg	74	159	182	170	97	208	93	48	115	1	239	78	34	83	88	0	57	49	1714	110

[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.

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Table 4. Greater sage-grouse production based on wing collections, Upper Snake Region, 2006-present.

Year	Juveniles:10 females	Juveniles:10 adults
2006[a]	267	172
2007[a]	110	71
2008	182	138
2009	217	161
2010	227	171
2011	160	106
2012	90	66
2013	102	72
2014	140	94
2015	172	112
10-year average	167	116

[a] Small sample sizes.

Table 5. Estimated greater sage-grouse harvest, Upper Snake Region, 2006-present.

	Check station					Telephone survey		
Year	Hunters[a]	Birds harvested	Birds per hunter	Hours per bird		Hunters	Birds	Birds per hunter day
2006[b]	553	302	0.5	7.1		3,339	3,883	0.6
2007[b]	490	306	0.6	6.3		2,119	2,280	0.6
2008[b]	660	589	0.9	4.8		2,768	5,339	0.8
2009[c]	651	574	0.9	4.7		2,229	4,651	0.9
2010[c]	446	246	0.6	6.9		1,051	1,698	0.6
2011	285	138	0.5	7.1		1,103	988	0.5
2012	275	118	0.4	8.7		1,118	1074	0.5
2013	313	114	0.5	8.4		1,082	1,060	0.4
2014	332	189	0.6	6.4		1,024	1,071	0.4
2015	342	190	0.6	6.7		905	1,005	0.5
10-year average	435	277	1	7	0	1674	2305	0.6

[a] Number of hunters includes those hunting for forest grouse, sage-grouse, and partridge.
[b] Telephone survey data reported in this table includes zones 6, 7A, and 8.
[c] Telephone survey data reported in this table includes zones 6, 7C, 7D, and 8B.

Table 6. Sharp-tailed grouse counted on lek routes, Upper Snake Region, 2006-present.

	Route - maximum total count						
Year	Sand Creek	Grassy	Pine Creek	Teton River[a]	Ozone[a]	Birch Creek[a]	Chokecherry[b]
2006	49	16[c]	57	62	21	72	
2007	75		58	57	40	58	
2008	25		57		10	68	
2009	34		17		19	74	25
2010	54		43	62	25	67	32
2011	34		57	47	29	88	34
2012	60		37		9	64	36
2013	80		38	7	17	59	32
2014	59		83	14	13	93	44
2015	124		85	24	9	31	37
2016	111		88	28	8	47	33
10-year average	69		56	34	21	65	34

[a] New route established in 2004; Teton River not run in 2008 or 2009 due to poor access/weather conditions.

[b] New route established in 2009.

[c] All but 1 lek on route is now within the Siddoway Big Grassy elk enclosure; lek route discontinued after 2006.

Table 7. Sharp-tailed grouse production based on wing collections[a], Upper Snake Region, 2006-present.

Year	Juveniles:10 adults	*n*
2006	112	240
2007	114	148
2008	155	263
2009	170	448
2010	135	360
2011	146	308
2012	161	280
2013	105	282
2014	161	186
2015	147	170
10-year average	141	269

[a] Small sample sizes with the exception of 209.

Table 8. Estimated sharp-tailed grouse harvest, Upper Snake Region, 2006-present.

	Check station				Telephone survey[a]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds	Birds per hunter day
2006[b,c]					1,307	2,668	0.7
2007[b,c]					833	1,645	0.7
2008[b,c]					1,019	1,967	0.7
2009[b,c]					979	1,907	0.8
2010[b,c]					893	1,171	0.7
2011[c]	15	21	1.4	3	791	1,163	0.6
2012 [b,c]					709	1,658	0.8
2013					416	620	0.5
2014					701	1,115	0.6
2015					783	1,679	0.8
10-year average					843	1,559	0.7

[a] Telephone survey data for 2003 is not available.
[b] No check station data collected because sharp-tail season opened later (1 Oct) than sage-grouse season.
[c] Telephone survey data includes Zones 3 (C) and 4 (D).

Table 9. Estimated chukar harvest, Upper Snake Region, 2006-present.

	Check station			Telephone survey[a]			
Year	Hunters[b]	Birds harvested	Birds per hunter	Hunters	Birds harvested	Hunter days	Birds per hunter day
2006	553	60	0.2	373	786	910	0.9
2007	490	42	0.1	272	30	551	0.5
2008[c]	660	0	0.0	446	4,772	5,154	0.9
2009[c]	651	6	0.1	271	3,134	2,952	1.1
2010	446	0	0.0	512	381	1,344	0.3
2011	285	6	0.0	336	438	617	0.7
2012	0	0	0	273	542	511	1.1
2013	0	0	0	18	0	18	0.0
2014	0	0	0	137	1,097	528	2.1
2015	342	5	0.0	70	5	143	0.4
10-year average	343	12	0.02	271	1,146	1,273	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] Telephone survey harvest estimate was substantially inflated by few respondents that reported a large harvest in a small sample of survey responses.

Table 10. Estimated gray partridge harvest, Upper Snake Region, 2006-present.

	Check station			Telephone survey[a]			
Year	Hunters[b]	Birds harvested	Birds per hunter	Hunters	Birds harvested	Hunter days	Birds per hunter day
2006	553	4	0.1	828	4,252	3,278	1.3
2007[c]	490	7	0.0	723	7,190	3,398	2.1
2008	660	3	0.1	347	1,344	2,048	0.7
2009	651	7	0.0	454	3,526	3,258	1.1
2010	446	0	0.0	533	3,102	2,467	1.3
2011	285	7	0.0	388	891	1,415	0.6
2012	275	6	0.0	931	2,461	3,026	0.8
2013	313	3	0.1	574	3,763	2,123	1.8
2014	0	0	0.0	636	2,759	8,061	0.3
2015	342	5	0.0	810	2,924	3,043	1.0
10-year average	402	4	0.01	622	3,221	3,212	1.1

[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] Telephone survey harvest estimate was substantially inflated by 1 respondent that reported a large harvest (95 birds) in a small sample (n = 22) of survey responses.

Table 11. Estimated spring turkey harvest, Upper Snake Region, 2006-present.

Hunt type	Year[a]	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
	2006	2	250[b]	206	50	20	984
	2007	2	250[b]	224	62	15	916
	2008	3	30[c]	276	75	15	1,094
	2009	3	30[c]	219	81	12	1,04
	2010	3	30[c]	263	81	12	939
	2011	3	30[c]	228	52	22	1,140
	2012	3	30[c]	250	42	23	951
	2013	3	30[c]	216	64	17	1,116
	2014	3	30[c]	226	63	30	1,917
	2015	3	30[c]	279	80	13	1,032

[a] Includes 25 youth permits and 175 any hunter permits.
[b] Includes 50 youth permits and 20 any hunter permits.
[c] Includes 50 youth permits and 250 any hunter permits.

Table 12. Estimated fall turkey harvest, Upper Snake Region, 2008[a]-present.

Hunt type	Year	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
Controlled	2008	1	25	17	8	8	65
	2009	1	25	15	8	6	50
	2010	1	25	25	7	21	146
	2011	1	25	21	7	15	105
	2012						
	2013	1	25	23	8	9	70
	2014	1	25	21	17	4	64
	2015	1	25	14	11	5	54

[a] Hunt initiated in 2008.

Table 13. Turkey translocation history, Upper Snake Region, 1984-2002.

Year	Sub-species[a]	Release site - GMU	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	GMUs 63A, 67	Panhandle, Clearwater regions	416
2002	M	GMUs 63A, 67, 69	Panhandle, Southwest regions	163

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

Table 14. Mourning doves banded in Upper Snake Region, 2006-present.

	Adult					
Year	Male	Female	Unknown	Hatch-year	Unknown	Total
2006	84	8	2	52	0	146
2007	82	22	1	44	0	149
2008	28	10	1	11	0	10
2009	64	23	0	59	0	146
2010	24	19	33	43	2	76
2011	59	21	9	47	0	137
2012	7	9	3	11	1	19
2013	39	18	2	6	0	72
2014	107	26	78	78	133	211
2015	144	29	78	82	169	251
Total	638	185	207	433	305	1,307

Table 15. Estimated cottontail rabbit and snowshoe hare harvest, Upper Snake Region, 2006-present.

	Cottontail rabbit		Snowshoe hare	
Year	Hunters	Cottontails harvested	Hunters	Hares harvested
2006	764	3,707	285	272
2007[a]	507	6,414	60	120
2008	546	1,775	161	149
2009	351	2,047	170	256
2010	582	6,207	54	74
2011	191	384	78	234
2012	635	1,046	137	136
2013	455	2,490	0	0
2014	477	1,997	142	91
2015	469	4,764	58	171
3-year average	467	3,084	67	87

[a] Harvest estimate was substantially inflated by 1 respondent that reported a large harvest in a small sample (n = 11) of survey responses.

SALMON REGION

Climatic Conditions

Climatic conditions were favorable for upland game birds throughout these reporting periods. The summers were wet and warm, creating good conditions throughout the region. The winters were cold, with above average snow pack. The winter snowpacks persisted into March and spring and summer conditions were moist.

Trapping and Translocation

No trapping for translocation took place in Salmon Region for upland game 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). Harvest estimates are likely biased because of very small sample sizes.

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, a reduction in the small amount of cereal grain acreage over time has negatively impacted pheasants. More recently, rural residential housing has been increasing, resulting in increased land clearing, more feral cats, and less hunting opportunity.

Management Implications

Pheasants in the 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 and heavy cattle and horse grazing. 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. There is some local interest in creating a very restrictive hunting season.

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 non-hunted population. 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 than any other upland game species (Table 2). Harvest estimates are likely biased because of very small sample sizes.

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 the Salmon Region is generally not large enough to significantly impact overall grouse populations. However, large-scale wildfires since 2000 that set back succession in large areas of GMUs 27, 28, and 36 may lead to future increases in forest grouse populations.

Management Implications

Forest grouse populations in the 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 10 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 populations are relatively unaffected by harvest, management strategies should emphasize maximum recreational opportunity and minimal data collection efforts.

Sage-grouse

Abstract

The Salmon Region currently monitors over 77 individual leks including 11 lek routes. Male attendance on leks provides a relative population index and is used to set harvest limits. In 209 harvest regulations were adjusted to a restricted season in Zone 7B. Region-wide, lek attendance on population index routes have been increasing since the mid-1990's (Figure 1). Four of the Salmon Region lek routes show long term trends and have good spatial representation across the region. These four leks are the Upper Pahsimeroi, Upper Lemhi, Lower Lemhi, and Leadore East. Long term data in the Salmon Region show that the sage-grouse population is characterized by a 10-year peak and trough cycle.

Population Surveys

Salmon Region personnel have significantly increased sage-grouse lek data collection efforts in recent years, increasing the number of leks visited from two in 1978 to 77 leks for the reporting period. Data from individual leks versus groups of leks show variability in terms of the maximum male sage-grouse attendance over time (Table 3). However, Salmon Region leks show an increasing trend in male attendance since 1996. The average of males/lek route in 2014-2015 was 65, and 68 in 2015-2016. The 20-year average for all Salmon Region lek routes since 1993 is 40.

Harvest Characteristics

The hunting season was reduced from a 23 day, two bird daily limit season to a seven-day, one bird daily limit (two in possession) season in 2009. Restrictive seasons have resulted in reductions in harvest and hunter numbers (Table 4).

Habitat Conditions

The Salmon Region has large areas of high quality, intact sagebrush steppe plant communities. Documented loss of sage-grouse habitat in the Salmon Region has been minimal in recent years. Habitat losses that do occur are generally caused by sagebrush conversion on private lands and small isolated areas with annual invasive grasses.

Habitat Use Monitoring

Since 2002 regional staff has participated in a series of challenge cost-share agreements with the BLM, and cooperated on projects with the Challis Sage-grouse LWG to search for undocumented sage-grouse leks and identify seasonal habitat use and characteristics of nesting and brood-rearing locations. During the reporting period, sage-grouse were captured and radio-collared in the region during February through April and tracked year-round. Sage-grouse were monitored, and the information was used to refine seasonal habitat use maps, monitor hen survival and production, and perform nest site habitat evaluations.

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; however, several hens have moved from the Pahsimeroi to nest in the upper Little Lost and one stayed through the winter.

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 appears to have failed to establish.

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 the Salmon Region can be subject to severe spring weather. This is a normal phenomenon for relatively high-elevation sage-grouse range. A one to two year decline in productivity (indicated by harvest and lek counts) due to weather is not necessarily indicative of a declining population.

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.

Harvest Characteristics

Chukar harvest and hunter participation varies dramatically annually depending upon weather conditions, and real or perceived availability of birds (Table 5). Estimates of regional harvest appear to fluctuate widely and may reflect inadequate sampling of hunters in the region.

Habitat Conditions

Chukar habitats in the 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 the BLM and USFS to install guzzlers, primarily directed at other wildlife species but probably providing water for chukars as well.

Management Implications

Chukar populations in the 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 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

While usually ranked third among upland bird harvest, gray partridge represent a minor portion of upland game hunter effort and bag in Salmon Region (Table 6). Harvest estimates are likely biased because of very small sample sizes.

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 the Salmon Region to augment existing groups and in novel areas. In 2015 and 2016, an additional 132 turkeys captured from Region 5 were released in GMU 21A to establish a new population to support future hunting opportunity. 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 five permits was instituted in GMUs 36B and 37 in spring 2005. An additional 10 permits were added in 2008 plus a youth hunt with five permits was offered. There were 15 controlled hunt permits and 10 Youth controlled hunt permits offered during the reporting period, with hunter success rates above 84% for the Spring 2015 and 2016 seasons.

Habitat Conditions

Potential wild turkey winter habitat exists in deciduous river bottoms along the 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 Translocation

During the reporting period, 132 turkeys were released in the upper Carmen Creek drainage. Between 1991 and 1999, 139 wild turkeys were released in Salmon Region to augment existing groups and in novel areas (Table 7).

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

The Salmon Region contains a breeding population of mourning doves. Prior to the reporting period, the only population information obtained was from call counts in the southern portion of Lemhi Valley. During 1985, 1986, and 1987, a total of four mourning doves were seen or heard along the route (Table 9). Doves heard and seen increased in the 2000s, but declined to only one dove seen in 2010 and 2011. In 1988, the southern half of the route was relocated three miles to the east. Beginning in 2000, the western portion (approximately seven 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. Call count routes in the region were discontinued in 2013.

Trapping and Translocation

As part of a national mourning dove banding project (under auspices of USFWS), staff in the Salmon Region have captured and banded doves since 2003 (Table 10). Capture was conducted at two sites, Baker and Kirtley Creek, from 2003-2006. During 2011, Baker was the only capture site; we placed bands on 67 doves and recaptured 11 birds from previous years. Based on recapture rates across subsequent years, minimum survival rates were surprisingly high, particularly for birds captured during 203 at the Baker site. Minimum survival rates for doves captured in 2003 at Baker were 42% through 2004 and 30% through 2005. Minimum one-year survival for doves captured in 2004 through 2010 at Baker ranged from 6% to 23%. For the reporting period, trap and banding sites have been dispersed across the region to 4 locations.

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 September 1 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

The 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 11). However, harvest estimates are likely biased because of very small sample sizes.

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 are collected nor is it anticipated this effort will increase.

American Crow

Abstract

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

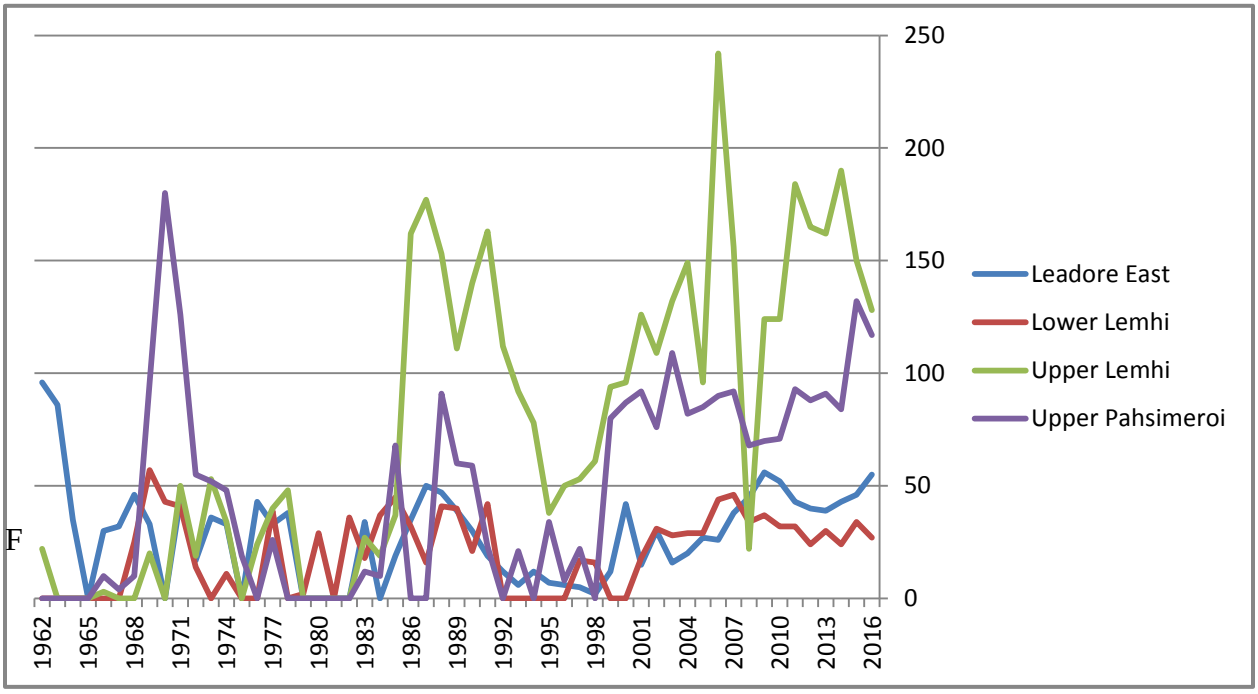

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Figure 1. Male attendance on four representative leks Salmon Region, 1962 - present

Table 1. Estimated pheasant harvest, Salmon Region, 2006-present.

Year	Hunters	Birds harvested	Hunter days	Birds/ hunter	Birds/ hunter day
2006	10	0	21	0.0	0.0
2007	107	103	572	1.0	0.2
2008	57	133	76	2.3	1.8
2009	54	78	123	1.4	0.6
2010	109	145	259	1.3	0.6
2011	194	422	934	2.2	0.5
2012	154	1490	941	9.7	1.58
2013	73	0	208	0	0
2014	13	9	27	7.3	0.4
2015	60	174	299	2.9	0.6
3-year average	49	61	178	1.2	0.3

Table 2. Estimated forest grouse harvest, Salmon Region, 2006-present.

Year	Hunters	Birds harvested	Hunter days	Birds/ hunter	Birds/ hunter day
2006	1,468	3,930	9,321	2.7	0.4
2007	1,690	5,638	10,791	3.3	0.5
2008	1,120	4,183	5,324	4.8	0.8
2009	1,728	3,517	7,984	2.0	0.4
2010	1,024	4,556	9,022	4.5	0.5
2011	1,09	3,636	4,364	3.6	0.8
2012	1,09	4,451	10,693	4.4	0.4
2013	2,375	6,040	25,751	2.5	0.2
2014	1,776	4,053	14,021	2.3	0.3
2015	1,158	3,603	11,017	3.1	0.3
3-year average	1,770	4,565	16,930	2.7	0.3

Table 3. Male greater sage-grouse counted on Lower Lemhi lek route, Salmon Region, 2006-present.

Year	Lower Lemhi lek	Lower Lemhi lek route
2006	15	42
2007	21	43
2008	15	34
2009	16	30
2010	13	32
2011	13	29
2012	15	23
2013	19	30
2014	14	24
2015	19	34
2016	17	27
3-year avg.	17	28

Table 4. Estimated greater sage-grouse harvest, Salmon Region, 2006-present.

	Telephone survey		
Year	Hunters	Birds harvested	Birds/ hunter day
2006	946	1,813	0.8
2007	289	495	0.6
2008	299	487	0.6
2009[a]	189	182	0.4
2010	142	135	0.5
2011	120	66	0.3
2012	182	208	0.6
2013	116	85	0.7
2014	145	112	0.8
2015	147	233	1.6
3-year average	136	143	1.0

[a] Season reduced from 23 day, 2 bird daily limit to 7 day, 1 bird daily limit.

Table 5. Estimated chukar harvest, Salmon Region, 2006-present.

Year	Hunters	Birds harvested	Hunter days	Birds/ hunter	Birds/ hunter day
2006	1,039	2,817	3,925	2.7	0.7
2007	1,240	4,012	3,081	3.2	1.3
2008	1,075	5,586	7,110	5.2	0.8
2009	674	5,587	3,833	8.3	1.5
2010	712	3,321	2,335	4.7	1.4
2011	451	1,483	1,483	3.3	1.0
2012	1,045	4,874	3,983	3.8	4.7
2013	933	3,225	3,474	5.7	0.9
2014	427	1,994	3,098	4.7	0.6
2015	582	5,685	4,964	9.38	1.2
3-year average	647	3,685	3,845	6.7	0.9

Table 6. Estimated gray partridge harvest, Salmon Region, 2006-present.

Year	Hunters	Birds harvested	Hunter days	Birds/ hunter	Birds/ hunter day
2006	82	72	103	0.9	0.7
2007	227	782	842	3.4	0.9
2008	49	141	84	2.9	1.7
2009	120	399	174	3.3	2.3
2010	57	273	166	4.8	1.6
2011	2	16	14	6.5	1.2
2012	126	112	728	0.9	0.2
2013	47	82	273	5.8	0.3
2014	28	33	117	1.2	0.3
2015	91	139	168	1.5	1.8
3-year average	55	85	186	3.0	0.8

Table 7. Turkey translocation history, Salmon Region, 1983-2016.

Year	Sub-species[a]	Release site - GMU	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
2015	U	Tower Creek - 21A	2	6	8	N
2015	U	Carmen Creek - 21A	13	41	54	N
2016	U	Tower Creek - 21A	6	11	17	S
2016	U	Carmen Creek - 21A		9	9	S
2016	U	Unspecified - 21A		44	44	S

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

Table 8. Spring turkey harvest, Salmon Region, 2015-2016.

Hunt type	Year[a]	Number of hunts	Permits available	Hunters	Birds harvested	Total days hunted
CH	2014	2	20[a]	19	13	111
CH	2015	2	20[a]	14	12	41
CH	2016	2	25[b]	25	21	79

Table 9. Mourning dove call-count survey results, Salmon Region, 2006-present.

	Call-count routes	
Year	Miles counted	Doves/mile
2006	20	0.60
2007	20	1.30
2008	20	0.65
2009	20	1.15
2010	20	0.05
2011	20	0.15
2012	20	0.15
2013	n/a	n/a
2014	n/a	n/a
2015	n/a	n/a

Table 10. Mourning doves banded in Salmon Region, 2006-present.

	Adult					
Year	Male	Female	Unknown	Hatch-year	Unknown	Total
2006	72	33	13	30	1	149
2007	58	12	16	46	0	132
2008	30	10	12	26	0	78
2009	27	19	14	24	0	84
2010	30	19	18	42	0	109
2011	31	18	6	11	0	67
2012	-	-	-	-	-	133
2013	29	12	1	19	30	71
2014	42	16	20	48	0	126
2015	20	10	0	9	0	39
Total	393	149	100	255	31	988

Table 11. Estimated cottontail harvest, Salmon Region, 2006-present.

Year	Hunters	Cottontails harvested	Days hunted	Cottontails/ hunter	Cottontails/ hunter day
2006	112	278	204	2.5	1.4
2007	222	210	960	1.0	0.2
2008	19	38	19	2.0	2.0
2009	46	213	253	4.6	0.8
2010	83	216	396	2.6	0.5
2011	42	115	94	2.8	1.2
2012	93	649	406	7	1.6
2013	46	45	48	1.0	1.0
2014	74	92	473	3.0	0.4
2015	84	372	979	4.4	0.4
3-year average	68	170	500	2.8	0.6

APPENDIX A

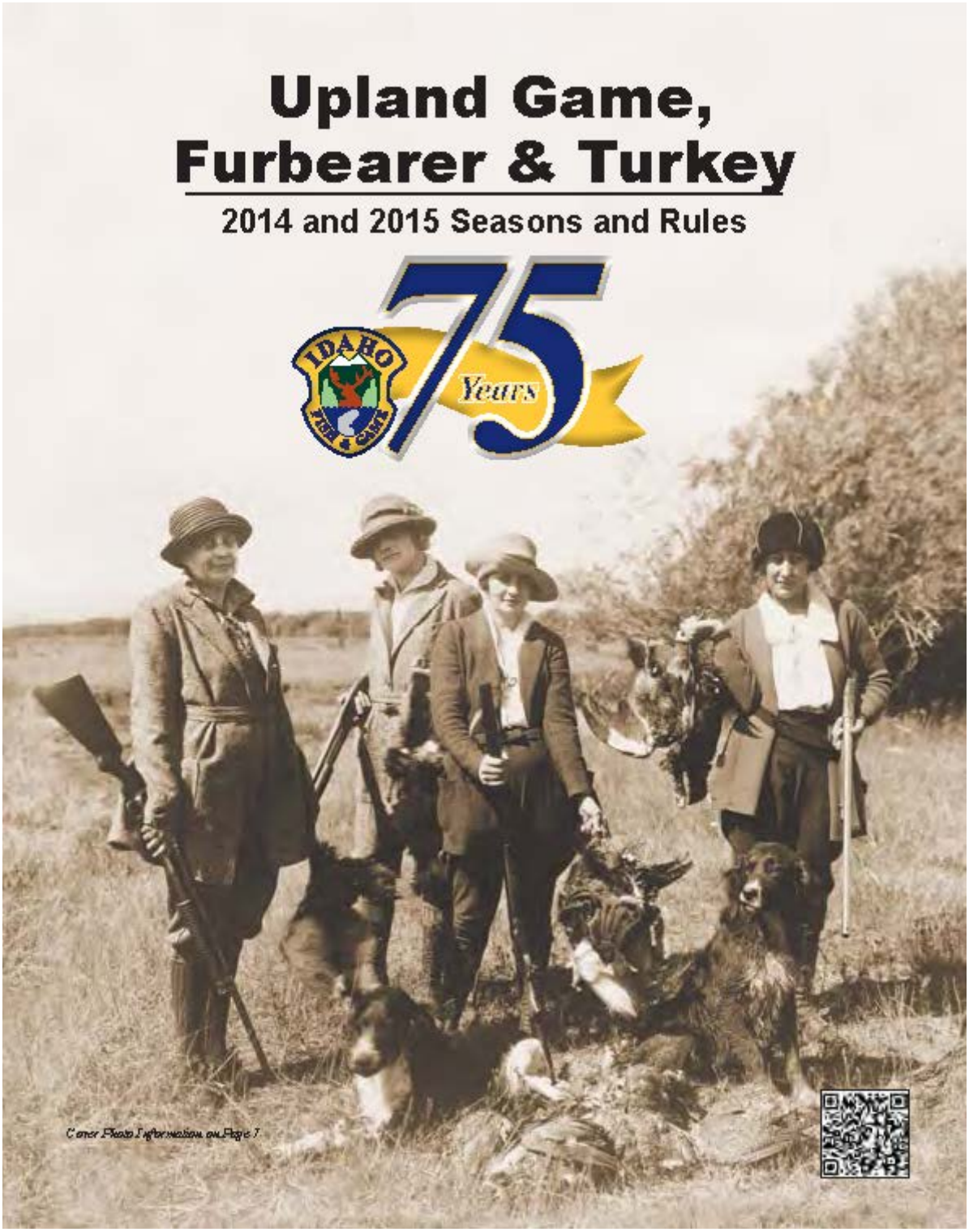
IDAHO

2014/2015 SEASON

UPLAND GAME RULES

Upland Game, Furbearer & Turkey

2014 and 2015 Seasons and Rules



Forest Grouse: Dusky (blue), Ruffed, and Spruce

Area 1

Boundary, Bonner, and Kootenai counties, portions of Latah and Clearwater counties in management units 6 and 9, and Benewah and Shoshone counties, except for those portions in management units 8, 8A, 10, and 10A.

Seasons

2014 — August 30 through January 31, 2015

2015 — August 30 through January 31, 2016

Daily Bag Limit ..... **4 in the aggregate**

Possession Limit ..... **12 in the aggregate**

Area 2

Remainder of the state.

Seasons

2014 — August 30 through December 31

2015 — August 30 through December 31

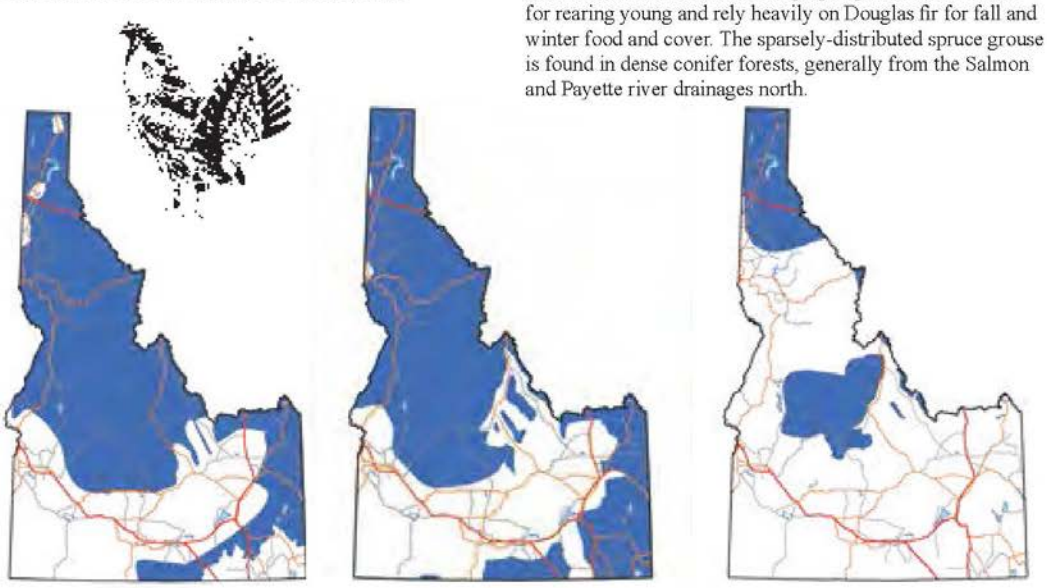
Daily Bag Limit ..... **4 in the aggregate**

Possession Limit ..... **12 in the aggregate**

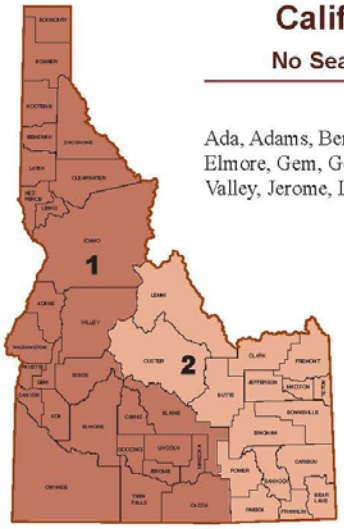
Forest Grouse

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. Dusky (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 is found in dense conifer forests, generally from the Salmon and Payette river drainages north.

Blue grouse are now known as Dusky grouse



Dusky Grouse | Ruffed Grouse | Spruce Grouse



California and Bobwhite Quail

No Season on Gambel's and Mountain Quail

Area 1

Ada, Adams, Benewah, Blaine ,Boise, Bonner, Boundary, Camas, Canyon, Cassia, Clearwater, Elmore, Gem, Gooding, Idaho, Kootenai, Latah, Lewis, Nez Perce, Owyhee, Payette, Shoshone, Valley, Jerome, Lincoln, Minidoka, Twin Falls and Washington counties.

Seasons

2014 — September 20 through January 31, 2015

2015 — September 19 through January 31, 2016

Daily Bag Limit ..... **10 in the aggregate**

Possession Limit ..... **30 in the aggregate**

Area 2

Remainder of the state: **CLOSED**

California Quail

Quail

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 occurred in agricultural areas of the Boise Valley. Today bobwhite are rare.

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. Mountain quail have recently been reintroduced into historical habitat on Craig Mountain WMA (Nez Perce and Lewis counties), and in Elmore and Gooding counties. If quail are encountered, hunters are cautioned that there is no open hunting season for mountain quail in Idaho.

Mountain Quail Sightings Wanted!

The Idaho Department of Fish and Game is surveying the state for mountain quail. This bird was once common in the western part of Idaho but now exists only in small scattered populations.

We need your help in determining the status and distribution of these birds. Please report any sighting you make as soon as possible to your nearest Fish & Game office.

What to Look For

CLOSED TO HUNTING

- Long straight head plume
- Chestnut throat (not black like California quail)
- Vertical white bars on sides
- Most common on brushy mountain slopes or in brushy forest

Photo ©Brian E. Small

Chukar and Gray Partridge

Entire State Open

Chukar

Seasons

2014 — September 20 through January 31, 2015

Daily Bag Limit ..... **8 Chukar & 8 Gray Partridge**

Possession Limit ..... **24 Chukar & 24 Gray Partridge**

2015 — September 19 through January 31, 2016

Daily Bag Limit ..... **8 Chukar & 8 Gray Partridge**

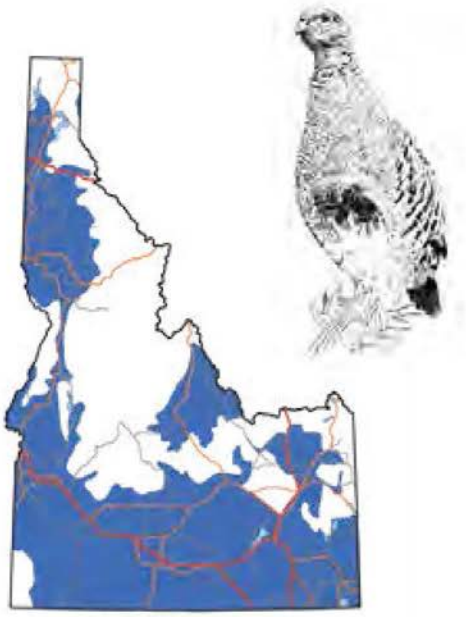
Possession Limit ..... **24 Chukar & 24 Gray Partridge**

Chukar

Distribution and Habitat Use: Shaded areas 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 widely distributed, and can be found in agricultural regions, as well as in sagebrush/grassland areas. They are hardy birds able to withstand severe winter weather if adequate food is available.



Gray Partridge

Photo courtesy Kevin Rush

Sharp-tailed Grouse

Area 1

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.

Area 2

Remainder of the state: **CLOSED.**

Seasons

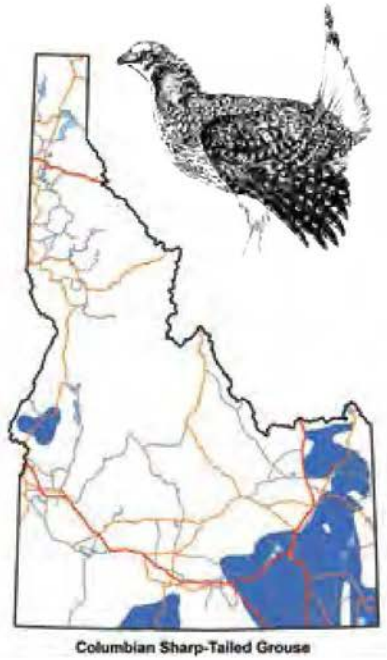
2014 — October 1 through October 31

2015 — October 1 through October 31

Daily Bag Limit **2**

Possession Limit **6**

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 53, 56-57.



Columbian Sharp-Tailed Grouse

Sharp-tailed Grouse

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 currently provide 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.

Pheasants - All Varieties
No Season on Hen (female) Pheasants

Area 1

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

Seasons

2014 — October 11 through December 31

2015 — October 10 through December 31

Daily Bag Limit ..... **3 cocks**

Possession Limit ..... **9 cocks**

Area 2

Bannock, Bear Lake, Bingham, Bonneville, Butte, Caribou, Clark, Custer, Franklin, Fremont, Jefferson, Lemhi, Madison, Oneida, Power, and Teton counties. Hunting hours start at 10 a.m. on Sterling WMA.

Seasons

2014 — October 18 through November 30

2015 — October 17 through November 30

Daily Bag Limit ..... **3 cocks**

Possession Limit ..... **9 cocks**

Area 3

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

Seasons

2014 — October 18 through December 31

2015 — October 17 through December 31

Daily Bag Limit ..... **3 cocks**

Possession Limit ..... **9 cocks**

Youth Hunt Season

2014 — October 4 through October 10

2015 — October 3 through October 9

Statewide the season begins one-half hour before sunrise. It is open statewide 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 three cocks, and the possession limit after the first day of the season is six cocks. **Except** on WMAs where pheasants are stocked, where the bag limit is two cocks and possession limit is four cocks.

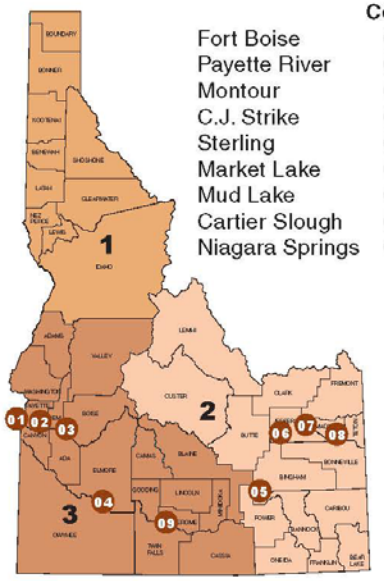
*One adult may accompany more than one youth hunter.


Photo courtesy Mark Sands

Wildlife Management Area Upland Game Bird Permit

Hunting for pheasants on the nine Wildlife Management Areas (WMAs) listed below requires a WMA Upland Game Bird Permit. Permit allows the take of six pheasants.

Idaho Department of Fish and Game releases pheasants at nine WMAs in southern Idaho. Any person 17 years old or older must have a valid WMA Upland Game Bird Permit in possession while hunting pheasants at the following WMAs:



WMA	Location Code
Fort Boise	01
Payette River	02
Montour	03
C.J. Strike	04
Sterling	05
Market Lake	06
Mud Lake	07
Cartier Slough	08
Niagara Springs	09

For hunting hours on WMAs, see page 18.

Permit Validation: When a pheasant is reduced to possession, the hunter must immediately:

- validate their permit by entering the harvest date and location in Non-Erasable ink,
- and remove a notch from the permit for each pheasant taken.

NOTE: All upland game bird/animal hunters are required to wear visible hunter orange (minimum size 36 square inches) above the waist during pheasant season when hunting on WMAs where pheasants are stocked. A hunter orange hat meets this requirement.

Area 1
No Seasons

Area 2

Market Lake and Mud Lake WMAs in Jefferson County, Cartier WMA in Madison County, and Sterling WMA in Bingham County.

Seasons

2014 — October 18 through November 30

2015 — October 17 through November 30

Daily Bag Limit ..... **2 cocks**

Possession Limit ..... **6 cocks**

Area 3

Fort Boise WMA (including Gold Island) in Canyon County, C.J. Strike WMA in Owyhee County, birding Island segment of the Payette River WMA in Payette County, Montour WMA in Gem County and Niagara Springs WMA in Gooding County.

Seasons

2014 — October 18 through December 31

2015 — October 17 through December 31

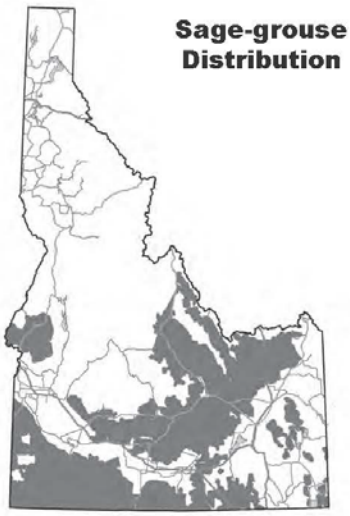
Daily Bag Limit ..... **2 cocks**

Possession Limit ..... **6 cocks**

Pheasant

Ring-necked Pheasant

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.



Sage-grouse Distribution

Sage-grouse

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.

8/2014/12,000/41918

Sage-grouse Seasons and Rules 2014

Sage-grouse season open September 20 through September 26

September 20 through September 26, one-bird daily limit, two in possession:

Statewide in sage-grouse range ***except*** designated closed areas.

Closed:

- Eastern Owyhee County and western Twin Falls County
- Southeastern part of the state: east of Interstate 84, south of Interstate 86, and south of U.S. Highway 26 **(this closure has been expanded for the 2014 season)**
- Washington, Adams, Payette and Gem Counties
- Elmore County

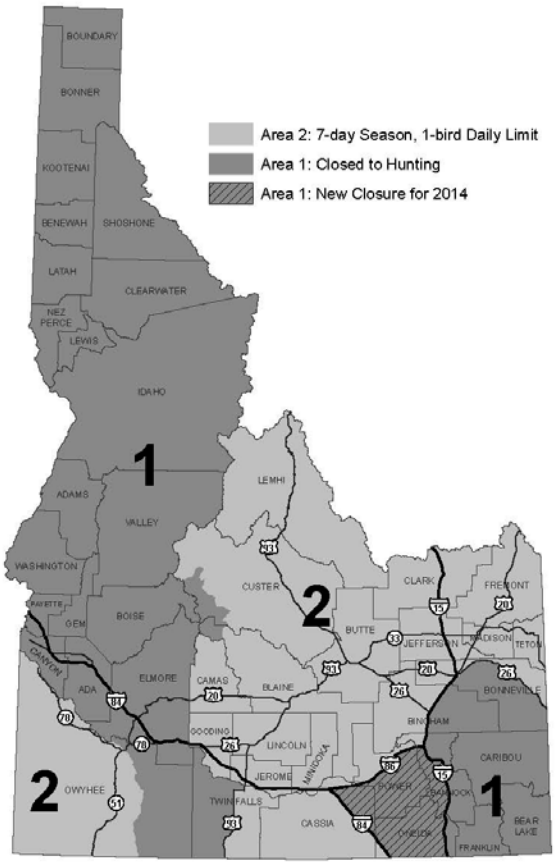
Sage/Sharp-tailed Grouse Permit Validation: Any person hunting sage- or sharp-tailed grouse must have in possession a valid hunting license with a sage/sharp-tailed grouse permit validation at $4.75.

Identify Your Target! Is it a Sage-grouse or a Sharp-tailed Grouse?
Sage-grouse and sharp-tailed grouse can occur in the same areas in south-central and eastern Idaho. Hunting seasons for these species do not overlap. The sharp-tailed grouse hunting season is October 1 to October 31.

Be sure of your target!

See inside for details.

Refer to the 2013-2014 and 2014-2015 Upland Game, Furbearer and Turkey Seasons and Rules for general upland gamebird rules, license and permit information. See Page 11-12 for important grouse identification information.



Area Boundary Descriptions

Area 1

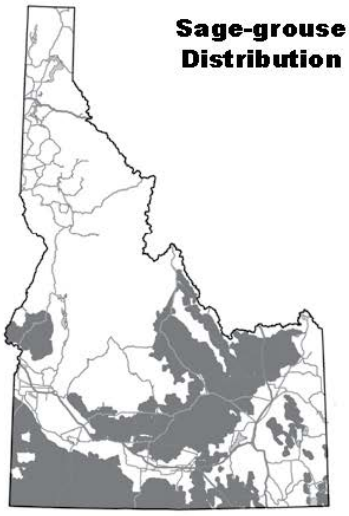
- All parts of the state **not** included in Area 2; **closed.**

Area 2

2014 Season: September 20 through September 26
Daily Bag Limit: 1
Possession Limit: 2

- Butte, Camas, Clark, Fremont, Gooding, Jefferson, Jerome, Lemhi, Lincoln, Madison, Minidoka, and Teton counties
- Bannock and Power counties north of Interstate 86
- Bingham County west of Interstate 15
- Blaine County, except within the Salmon River drainage
- Bonneville County west of Interstate 15 and north of U.S. Highway 26
- Cassia County west of Interstate 84 and north of Interstate 86
- Custer County, except within the Salmon River drainage upstream from and including Valley Creek
- Oneida County west of Interstate 84
- Owyhee County west of the Bruneau River
- Twin Falls County east of U.S. Highway 93

Wings collected from harvested birds provide important biological data. If you see a wing barrel, please deposit one wing from each bird you harvest. We also collect wings at check stations and through a mail-in wing survey. If you would like to participate in our wing envelope program, call 208 334-2920.



Sage-grouse Distribution

Sage-grouse

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.

8/2015/12, 000/41918

Sage-grouse Seasons and Rules 2015

Sage-grouse season open September 19 through September 25

September 19 through September 25, one-bird daily limit, two in possession:

Statewide in sage-grouse range ***except*** designated closed areas.

Closed:

- Southeastern part of the state: east of Interstate 84, south of Interstate 86, east of Interstate 15, and south of U.S. Highway 26
- Washington, Adams, Payette and Gem counties
- Elmore County

Sage/Sharp-tailed Grouse Permit Validation: Any person hunting sage- or sharp-tailed grouse must have in possession a valid hunting license with a sage/sharp-tailed grouse permit validation at $4.75.

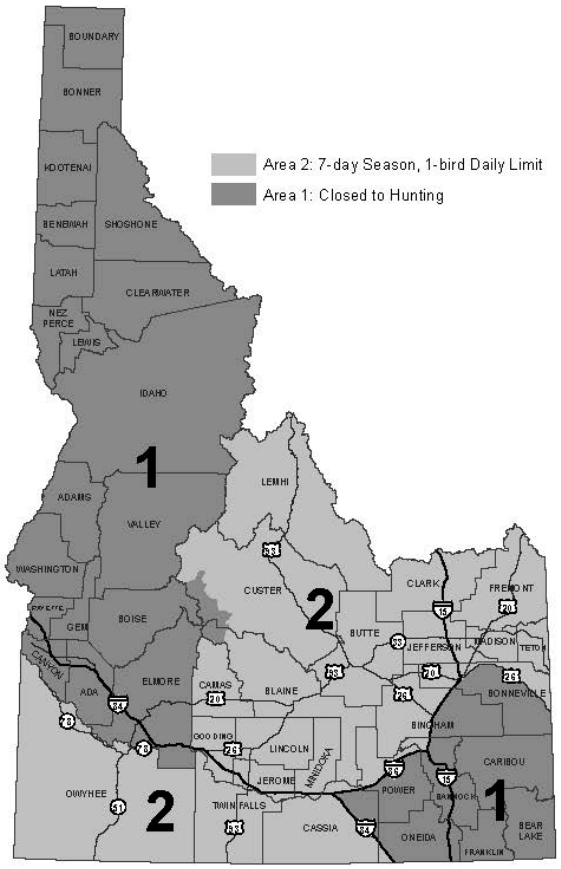
Identify Your Target! Is it a Sage-grouse or a Sharp-tailed Grouse?

Sage-grouse and sharp-tailed grouse can occur in the same areas in south-central and eastern Idaho. Hunting seasons for these species do not overlap. The sharp-tailed grouse hunting season is October 1 to October 31.

Be sure of your target!

See inside for details.

Refer to the 2014 and 2015 Upland Game, Furbearer and Turkey Seasons and Rules for general upland gamebird rules, license and permit information. See Page 11-12 for important grouse identification information.



Area Boundary Descriptions

Area 1

- All parts of the state **not** included in Area 2; **closed.**

Area 2

2015 Season: September 19 through September 25
Daily Bag Limit: 1
Possession Limit: 2

- Butte, Camas, Clark, Fremont, Gooding, Jefferson, Jerome, Lemhi, Lincoln, Madison, Minidoka, and Teton counties
- Bannock and Power counties north of Interstate 86
- Bingham County west of Interstate 15
- Blaine County, except within the Salmon River drainage
- Bonneville County west of Interstate 15 and north of U.S. Highway 26
- Cassia County west of Interstate 84 and north of Interstate 86
- Custer County, except within the Salmon River drainage upstream from and including Valley Creek
- Oneida County west of Interstate 84
- Owyhee County and Twin Falls County

Wings collected from harvested birds provide important biological data. If you see a wing barrel, please deposit one wing from each bird you harvest. We also collect wings at check stations and through a mail-in wing survey. If you would like to participate in our wing envelope program, call 208 334-2920.

Upland Game Animals — Cottontail Rabbits and Snowshoe Hares

Cottontail Rabbit Seasons

2014 — August 30 through February 28, 2015
Daily Bag Limit ..... **8 Cottontail Rabbits**
Possession Limit ..... **24 Cottontail Rabbits**

2015 — August 30 through February 28, 2016
Daily Bag Limit ..... **8 Cottontail Rabbits**
Possession Limit ..... **24 Cottontail Rabbits**

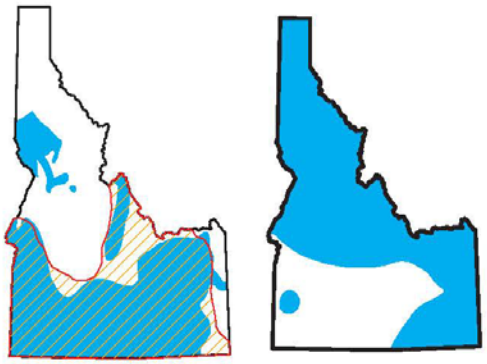
Snowshoe Hare Seasons

2014 — August 30 through March 31, 2015
Daily Bag Limit ..... **8 Snowshoe Hares**
Possession Limit ..... **24 Snowshoe Hares**

2015 — August 30 through March 31, 2016
Daily Bag Limit ..... **8 Snowshoe Hares**
Possession Limit ..... **24 Snowshoe Hares**

Pygmy Rabbit Season is CLOSED

Shaded areas show general distribution of these species



Cottontail Rabbits and Pygmy Rabbits (yellow stripe)

Hares

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.

Unlawful Methods of Take for Upland Game Animals

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 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.

Mourning Doves and Sandhill Cranes
September 2014 and 2015

2014 and 2015 MOURNING DOVE SEASON AND LIMITS

September 1–September 30
Daily Bag Limit: 10
Possession Limit: 3 Times Daily Bag
Season: 30

☒ **Federal Migratory Game Bird Harvest Information Program Validation—REQUIRED**

☒ **Shotgun capable of carrying no more than 3 shells—REQUIRED**

Federal Migratory Bird Stamp—NOT REQUIRED

Nontoxic Shot—NOT REQUIRED

Migratory Birds are birds protected by federal law as a result of treaties signed with other countries. Protected migratory birds are listed in Title 50 Code of Federal Regulations, Section. 10.13. This list includes almost all birds found in the United States with the exception of the house sparrow, feral pigeon (commonly called rock dove), European starling, Eurasian collared-dove, mute swan, and upland game birds (which are protected by state laws).

All migratory birds are protected. However, a subset of migratory birds classified as migratory game birds may be hunted in accordance with State and Federal regulations. The list of migratory game birds includes species of ducks, geese (including brant), swans, doves and pigeons, cranes, rails, coots, gallinules and moorhens, woodcock and snipe, if there is an open season.

Stamps and Validations

No person shall hunt mourning doves, sandhill cranes, ducks, geese, brant, coots or common snipe anywhere within the state of Idaho without having in possession the appropriate hunting license that has been validated for the Federal Migratory Game Bird Harvest Information Program (Federal HIP). The validation cost is $1.75 for residents and $4.75 for nonresidents, and is available at any license vendor. This validation is in effect from January 1 through December 31 of each year.

The U.S. Fish and Wildlife Service and all state wildlife agencies cooperate in this program, which began in 1992, to gather better harvest information on migratory game birds. Idaho joined the program in 1996. The Federal HIP will allow migratory game bird managers to more accurately estimate the annual harvest of waterfowl, shore birds (snipe, for example), and doves to gain a better understanding of bird populations.

Federal Regulations

In addition to state rules, the following federal regulations apply to the taking, possessing, shipping, transporting, or storing of migratory game birds. This information is only a summary of the major federal regulations which are found in Title 50, Code of Federal Regulations, Part 20, and which are available at http://www.gpo.gov/fdsys/pkg/CFR-2012-title50-vol1/content-detail.html. Violation of federal regulations is also a violation of state law.

It is against the law to take migratory game birds:

- With a trap, snare, net, rifle, pistol, swivel gun, shotgun larger than a 10 gauge, punt gun, battery gun, machine gun, fishhook, poison, drug, explosive, or stupefying substance.
- With any shotgun capable of holding more than three shells unless it is plugged with a one-piece filler which is incapable of removal without disassembling the gun.
- Equipment Restrictions: Shot Sizes: Sandhill cranes may legally be taken with shot size T (0.2 inches in diameter) or smaller (lead or nontoxic).
- From a sink box (a low floating device having a depression affording the hunter a means of concealment beneath the surface of the water).
- From or with the aid or use of a car or other motor-driven land conveyance, or any aircraft, except that paraplegics and single or double amputees of the legs may take from any stationary motor vehicle or stationary motor-driven land conveyance (Also see: "It Is Unlawful" section on page 45). "Paraplegic" means an individual inflicted with paralysis of the lower half of the body with involvement of both legs.
- By use or aid of live birds as decoys.

Rules and seasons may change after the printing of this publication. Check with the Fish and Game website or local Fish and Game office for regulation changes.

- From or by means of any motorboat or sailboat unless the motor has been completely shut off and/or the sail furled, and its progress has ceased.
- Using records or tapes of migratory bird calls, or sounds, or electronically amplified imitations of bird calls.
- By driving, rallying, or chasing birds with any motorized conveyance or any sailboat to put them in the range of the hunters.
- By the aid of baiting (placing feed such as corn, wheat, salt, or other feed to constitute a lure or enticement), or on or over any baited areas. Hunters should be aware that a baited area is considered to be baited for 10 days after removal of the bait, and it is not necessary for the hunter to know an area is baited to be in violation.
- During the closed season.

Wanton Waste:

No person shall kill or cripple any migratory game bird without making a reasonable effort to retrieve the bird, and retain it in his actual custody, at the place where taken or between that place and either (a) his automobile or principal means of land transportation; or (b) his personal abode or temporary or transient place of lodging; or (c) a migratory bird preservation facility; or (d) a post office; or (e) a common carrier facility.

Federal Limits:

Daily Bag Limit: No person shall take in any one day more than one daily bag limit.

No person shall possess while in the field, have in custody, or transport more than one daily bag limit between the place where taken and either:

- His/her automobile or principle means of land transportation.
- His/her personal abode or temporary place of lodging.
- A migratory bird preservation facility.
- A post office.
- A common carrier facility.

Other Possession:

- No person shall possess more than one daily limit on the opening day of the season.
- No person shall possess more than the possession limit even when such birds are stored at home or are being processed at a commercial preservation facility.
- No person, including commercial facilities shall possess migratory birds of another unless such birds are tagged by the taker with the total number of birds and species, date killed, and signed by the taker.

Tagging:

No person shall give, put or leave any migratory game birds at any place or in the custody of another person unless the birds are tagged by the hunter with the following information: (a) the hunter's signature, (b) the hunter's address, (c) the total number of birds involved, by species, and (d) the dates such birds were killed. Tagging is required if the birds are being transported by another person for the hunter, or if the birds have been left for cleaning, storage (including temporary storage), shipment, or taxidermy services (see proxy statement on page 49).

Termination of Possession:

The possession of birds taken by any hunter shall be deemed to have ceased when such birds have been delivered by him to:

- Another person as a gift when accompanied by a proxy statement. See page 49.
- A post office, or a common carrier, or a migratory bird preservation facility, **and** consigned for transport by the Postal Service or a common carrier to some person other than the hunter.

(Note: Migratory birds left in processing or storage facilities, home freezers, etc., are part of a hunter's "possession limit" until conditions above are met. Birds must be given or assigned to someone other than the taker in order to end or terminate possession.)

Species Identification:

One (1) fully-feathered wing or the head must be retained on all dressed game birds (except turkey) and Eurasian-collared doves to permit identification as to species and sex while being transported between the place where taken and the personal abode of the possessor OR between the place where taken and a commercial processing or storage facility. The beard or leg of wild turkey must be left naturally attached to the carcass while being transported.

Shipment:

No person shall ship migratory game birds unless the package is marked on the outside with: (a) the name and address of the person sending the birds, (b) the name and address of the person to whom the birds are being sent, and (c) the number of birds, by species, contained in the package.

Importation: For information regarding the importation of migratory birds killed in another country, hunters should consult 50 CFR 20.61 through 20.66.

Other Regulations:

National Wildlife Refuges: More restrictive regulations may apply to National Wildlife Refuges. Hunters should check refuge regulations before hunting.

Indian-owned Reservation Lands: Federal law prohibits unauthorized trespass on Indian-owned reservation lands for hunting, fishing, or trapping purposes (18 US 1165).

Turkey Seasons

General Hunt Seasons

(maps on page 28 - 29)

- April 8-14, 2014 and April 8-14, 2015. General Spring Youth Hunt in Game Management Units open to General Season turkey hunting (See page 24 for age requirements) and open in Controlled Hunt areas to holders of a Youth Only Controlled Hunt Permit.
- April 15, 2014 through May 25, 2014 and April 15, 2015 through May 25, 2015. 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, 19A, 20, 22, 23, 24, 31, 32 (except that portion in Payette County), 32A, 33, 39, 73, 74, 75, 77 and 78.
- September 15, 2014 through December 15, 2014 and September 15, 2015 through December 15, 2015. General Fall Hunt in Game Management Units 1, 2 (except Farragut State Park and Farragut WMA) 3, 4, 4A, 5 and 6.
- September 15, 2014 through October 9, 2014 and September 15, 2015 through October 9, 2015. General Fall Hunt in Game Management Units 8, 8A, 10, 10A, 11, 11A, 12, 13, 14, 15, 16, 16A, 17, 18, 19 , 20.
- November 21, 2014 through December 31, 2014 and November 21, 2015 through December 31, 2015. General Fall Hunt in Game Management Units 8, 8A, 10A, 11, 11A, 13, 14, 15, 16, and 18. This hunt is open on private lands only. For the purpose of this hunt, "private lands" do not include corporate timberlands.

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, except in Units, 1, 2, 3 and 5 where 5 turkeys (either sex) may be taken in a day during fall seasons. No more than two bearded turkeys may be taken per spring. The most tags one hunter may possess in one year is six.

Tags: There are three types of tags.

The general tag is valid for spring and fall seasons. It can also be used during spring or fall controlled hunts with the purchase of a controlled hunt permit. If the general tag is not used to harvest a turkey in the spring it may be used in fall seasons.

The extra tag is the second tag available in the spring. It is valid for spring general hunt seasons and may be used during fall general or fall controlled hunt seasons.

The special unit tag is valid for the fall season in Units 1, 2, 3 or 5. The special unit tag is also valid for any designated depredation hunt during the calendar year.

Two turkey tags - one general tag and one extra tag - may be purchased for the spring turkey season before May 26.

Species Identification

The beard or leg of wild turkey must be left naturally attached to the carcass while being transported.

Shooting Hours

Shooting hours are from one-half hour before sunrise to sunset.

Wild Turkey Controlled Hunt Seasons — Spring 2014 - 2015

⇩ Use these numbers on your controlled hunt application.		Refer to Big Game Rules for unit boundary descriptions. Youth Hunts - hunter must be 15 years of age or younger on the opening day of the youth hunt.	
Hunt No	Controlled Hunt Area Descriptions	Spring Hunts	Permits
9001	36B-1: All of Units 36B and 37, 37A, and that portion of Unit 28 upstream from and including the Hat Creek drainage.	April 15 - May 25 Access is Limited *(Recommend do not apply unless you have access to private property)*	15
9002	36B-2: All of Units 36B, 37, 37A, and that portion of Unit 28 upstream from and including the Hat Creek drainage.	Youth Hunt April 8 - May 25, 2014 & 2015 Access is Limited *(Recommend do not apply unless you have access to private property)*	5
9003	38-1: All of Unit 38 and that portion of Unit 32 in Payette County.	April 15 - May 25 Access is Limited	75
9004	38-2: All of Unit 38 and that portion of Unit 32 in Payette County.	Youth Hunt April 8 - April 24 Access is Limited	60
9005	38-2: All of Unit 38 and that portion of Unit 32 in Payette County.	Youth Hunt April 25 - May 25 Access is Limited	40
9006	50-1: All of Unit 50, 51, 58, 59, 59A, 60, 60A, 61, 62, 62A, 63, 63A, 64, 65, 66, 67, 69.	April 15 - April 30	125*
9007	50-2: All of Unit 50, 51, 58, 59, 59A, 60, 60A, 61, 62, 62A, 63, 63A, 64, 65, 66, 67, 69.	May 1 - May 25	125*
9008	50-3: All of Unit 50, 51, 58, 59, 59A, 60, 60A, 61, 62, 62A, 63, 63A, 64, 65, 66, 67, 69.	Youth Hunt April 8 - May 25	50*
9009	54-1: All of Unit 54.	Youth Hunt April 8 - May 25	20
9010	54-2: All of Unit 54.	April 15 - May 5	16
9011	54-3: All of Unit 54.	May 6 - May 25	16
9012	68A-1: All of Unit 68A.	Youth Hunt April 8 - May 25	15*
9013	68A-2: All of Unit 68A.	April 15 - April 30	15*
9014	68A-3: All of Unit 68A.	May 1 - May 25	15*
9015	71-1: All of Unit 71.	Youth Hunt April 8 - May 25	75
9016	71-2: All of Unit 71.	April 15 - April 30	75
9017	71-3: All of Unit 71.	May 1 - May 25	75
**See page 51 for areas closed to turkey hunting, ie., federal refuges, bird refuges, active bald eagle nests, etc.*			

Hunters: Please check controlled hunt area descriptions. Hunt areas may change annually.

Wild Turkey Controlled Hunt Seasons — Fall 2014 - 2015

⇩ Use these numbers on your controlled hunt application.		Refer to Big Game Rules for unit boundary descriptions. Youth Hunts - hunter must be 15 years of age or younger on the opening day of the youth hunt.	
Hunt No	Controlled Hunt Area Descriptions	Fall Hunts	Permits
9018	22-1: All of Units 22, 32, 32A	September 15 - October 9	125
9019	31-1: All of Unit 31	September 15 - October 9	20
9020	50-4: All of Units 50, 51, 58, 59, 59A, 60, 60A, 61, 62, 62A, 63, 63A, 64, 65, 66, 67, 69.	Youth Hunt September 15 - November 30	25
9021	71-4: All of Unit 71	September 15 - November 30	100
9022	71-5: All of Unit 71	Youth Hunt September 15 - December 31	100
9023	73-1: All of Units 73, 74, 75, 77, 78	September 15 - October 31	150
**See page 51 for areas closed to turkey hunting, ie., federal refuges, bird refuges, etc.*			

Hunters: Please check controlled hunt area descriptions. Hunt areas may change annually.

Controlled Hunt Worksheet/Application

Applications can be submitted electronically at any IDFG license vendor. Applications can be made using your credit card by calling 1-800-554-8685 or the IDFG website. Controlled hunt worksheets can be mailed with proper fees to any IDFG office. Credit card processing fees: 3 percent plus $5.50. Internet: 3 percent plus $3.50.

Use this worksheet to speed up the application process. Fill in the blanks with your current year hunting license number and controlled hunt numbers before you apply. Group Applicants: Two hunters may apply on the same application for turkey, spring and fall bear, moose, sheep, or goat.

How Many Hunters Are Applying? ☐

Designate $1 of Fee to C.A.P?
(Citizens Against Poaching)

(Single application for deer, elk, antelope, bear, moose, goat, sheep, or turkey)

NAME #1 _____ **Yes** ☐ **No** ☐
Date of Birth _____
LICENSE NUMBER _____

(Group application for deer, elk, antelope, bear, moose, goat, sheep, or turkey)

NAME #2 _____
Date of Birth _____
LICENSE NUMBER _____

FEE TO APPLY: $6.25 per Resident Hunter $14.75 per Nonresident Hunter

☐☐☐☐ **1st Choice Hunt Number** ☐☐☐☐ **2nd Choice Hunt Number**

Controlled Hunt Applicants: Use this form for one species application only.
You may photocopy this form.

APPLY FOR CONTROLLED HUNTS BY PHONE: 1-800-554-8685

Use your VISA, MASTERCARD, OR DISCOVER card and this toll -free phone number to apply for controlled hunt permits. (A service charge of 3 percent of the transaction plus $5.50 is added to telephone orders.)

Falconry

Species from the following families may be used for falconry (dependent on class of permit):

- *Accipitridae* (except the bald eagle).
- *Falconidae.*
- *Strigidae*

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 below). During firearm season, falconers may take firearm season bag and possession limits. During extended falconry seasons, special limits apply.

Migratory game birds may be taken by falconry during firearms seasons established for those species. However, during firearms seasons special bag and possession limits apply.

Falconers are now required to have state permits for raptor captive breeding, falconry, falconry capture (nonresidents only), falconry in-state transfer, and field meet (nonresidents only). A falconry training permit is required when training with released upland game birds and waterfowl. Permits can be purchased at Fish and Game Regional Offices.

There are special requirements regarding the capture, possession, transfer and use of birds of prey in Idaho. Complete rules are available from: Idaho Department of Fish and Game, 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.

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.

Extended Falconry Seasons, Bag and Possession Limit

Species	Open and Closed Areas	Season Dates	Daily Bag Limit	Possession Limit (After 1st day of season)
Forest grouse, Dusky (blue), ruffed & spruce; California and bobwhite quail; chukar & gray partridge; sage- & sharp-tailed grouse; pheasants (all varieties)	All counties or parts of counties which have a firearms season are open to hunting by falconry.	August 15, 2014 - March 15, 2015 August 15, 2015 - March 15, 2016	3 of any kind and shall not include more than 1 pheasant (male or female), 1 sage-grouse, or 1 sharp-tailed grouse except during firearm seasons when those seasons' limits apply.	9 of any kind and shall not include more than 3 pheasant (male or female), 3 sage-grouse, or 3 sharp-tailed grouse
Crows	Open statewide.	October 1, 2014 - January 31, 2015 October 1, 2015 - January 31, 2016	No daily bag or possession limits	
Migratory game birds (ducks, coots, mergansers, common snipe, mourning dove)	Open statewide.	These seasons shall coincide with the regular firearms seasons for these species.	3 of any kind	6 of any kind
Cottontail rabbits	Open statewide.	March 1, 2014 - August 31, 2014 March 1, 2015 - August 31, 2015	2 of any kind	6 of any kind
Snowshoe hares	Open statewide.	April 1, 2014 - August 31, 2014 April 1, 2015 - August 31, 2015		

American Crow

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 47.

Seasons, Bag and Possession Limits - Statewide

Species	Season	Daily Bag and Possession Limits
American Crow	October 1, 2014 - January 31, 2015	NO LIMITS
	October 1, 2015 - January 31, 2016	

Submitted by:

Wayne Wakkinen
Regional Wildlife Manager

Clay Hickey
Regional Wildlife Manager

Rick Ward
Regional Wildlife Manager

Regan Berkley
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Daryl Meints
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Zach Lockyer
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Curtis Hendricks
Regional Wildlife Manager

Greg Painter
Regional Wildlife Manager

Approved by: IDAHO DEPARTMENT OF FISH AND GAME

Toby Boudreau, Asst. Chief
Bureau of Wildlife

Scott Reinecker, Chief
Bureau of Wildlife

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.