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Virgil Moore, Director

Surveys and Inventories

2012 Statewide Report

UPLAND GAME

Study II, Job 1

July 1, 2011 to June 30, 2012

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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, 2011 to June 30, 2012

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, telephone surveys assess overall hunter activity and harvest of upland game species. From 1996-2000, telephone surveys estimated statewide rather than regional trends (except turkey) due to budget constraints. A separate telephone survey has been conducted since 2000 for sage- and sharp-tailed grouse to improve sample size for these 2 species that have been considered for listing under the federal Endangered Species Act (ESA). Starting in 2001, telephone surveys were expanded to collect regional data for all upland game species.

In 2011, the estimated harvest of chukars, forest grouse, and snowshoe hares was higher than 2010 estimates. However, the estimated harvest for all other upland game birds and snowshoe hares were either stable or down from 2010 estimates.

In 2011, approximately 37,900 resident hunting license buyers hunted upland game and approximately 5,000 non-resident hunting license buyers hunted upland game. This represents 17.0% of all resident hunting license buyers and 16.6% of all non-resident hunting license buyers.

Climatic Conditions

Idaho is an extremely geographically diverse state and weather patterns can vary dramatically. Snowfall during winter 2011-2012 was below normal in southeast Idaho, but normal across the rest of the state (Joint Agricultural Weather Facility 2012a). By mid-summer, precipitation since

1 January was above normal in southwest and northern Idaho, but below normal in southeast Idaho. Temperatures were normal in June (Joint Agricultural Weather Facility 2012b). Spring and early summer conditions were wetter than average, with normal temperatures in 2012. The regions in the southern portion of the state reported favorable nesting conditions.

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 Magic Valley Region, 33 Columbian sharp-tailed grouse were trapped and translocated to sites in Washington to augment populations.

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 this reporting period, 27 HIP upland bird projects were implemented on 482 acres in Idaho. The Department has 3 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 2011, the opening date remained unchanged; the second Saturday in October in northern Idaho and the third Saturday in October in southern Idaho. Bag and possession limits for pheasant (Appendix A) remained at three and six, respectively, 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 2011 season. 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. The youth-only pheasant season was held during 1-7 October.

Population Surveys

Roadside counts are conducted in the Clearwater, Magic Valley, and Southwest regions. The number of pheasants observed per mile increased slightly in the Clearwater Region and the Southwest Region. The number of birds observed per mile declined in the Magic Valley Region,

and was tied for the lowest on record. Pheasant population numbers continue to persist at very low levels.

Harvest Characteristics

According to our statewide telephone survey, approximately 20,500 hunters harvested 63,200 pheasants in 2011 (Table 1). The estimated harvest was down slightly from 64,400 in 2010. The average number of birds harvested per hunter day (Table 2) in 2011(0.52) was down from 2010 (0.60). The Southwest Region had the highest harvest where approximately 8,900 hunters harvested an estimated 28,400 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. Weather and precipitation in spring 2012 should provide favorable nesting and brood-rearing habitat across southern 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 3 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.

Quail

Abstract

The estimated statewide quail harvest increased slightly from 2010 to 2011 seasons. 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 2011, the season opener was moved from the third Saturday in September to 1 October. The 31 January closing date in the Panhandle, Clearwater, and Southwest regions has remained unchanged. In 2011, bag and possession limits for quail remained at 10 and 20, respectively, statewide (Appendix A).

Population Surveys

Quail are counted during August brood routes in the Southwest and Magic Valley regions. The number of birds observed per mile of route decreased in the Magic Valley Region, but remained the same in the Southwest Region from 2010 to 2011. Numbers were slightly below the 10-year average in both the Southwest and Magic Valley regions.

Harvest Characteristics

According to our statewide telephone survey, approximately 9,300 hunters harvested 85,300 quail in 2011. The estimated harvest was up slightly from 83,100 in 2010. The average number of birds harvested per hunter (Table 3) in 2011 (9.16) was up from 2010 (8.28). The Southwest Region had the highest harvest where approximately 6,900 hunters harvested an estimated 66,900 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 100,000 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 from 2010 to 2011. 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

In 2010, the forest grouse season opener was moved from 1 September to 30 August, and is now concurrent with the archery season opener (Appendix A). The season was also extended to 31 January in the Panhandle Region. This season framework had remained unchanged since 1990. Bag and possession limits were 4 and 8, respectively.

Population Surveys

Forest grouse population surveys were not conducted in Idaho during 2010.

Harvest Characteristics

The telephone survey indicated forest grouse harvest (Table 1) increased from 2010 (66,800) to 2011 (72,000). In 2011, more hunters (21,700) pursued forest grouse (Table 4) than in 2010 (20,100). The Southwest Region had the highest level of forest grouse harvest where approximately 5,500 hunters harvested about 19.4 forest grouse.

In 2011, harvest data via the telephone survey for forest grouse was collected by species: ruffed grouse, blue grouse, and spruce grouse. Individuals unable to identify forest grouse by species reported harvest as "unknown forest grouse." Ruffed grouse hunters (18,800) spent more days hunting (103,100) and harvested more birds (41,200) than dusky (blue) grouse hunters (9,700 hunters, 52,000 days, and 21,000 birds harvested) or spruce grouse hunters (3,000 hunters, 17,800 days, and 3,100 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 2011, except for designated closed areas. Closed areas were Washington and Adams counties; eastern Owyhee County; and western Twin Falls County (impacted by 2007 Murphy Complex Fire); and the southeastern portion of the state. As per Commission action, opening day of the upland game bird hunting season in 2011, including sage-grouse, changed from the 3rd Saturday in September to 1 October.

Population Surveys

The Department utilizes standardized counts on 78 established lek routes to monitor population trends. Other leks are counted irregularly on the ground or by helicopter. In 2012, biologists and

volunteers surveyed 1,112 leks statewide. Of these, 317 leks were surveyed by helicopter and 462 leks were counted on 78 lek routes.

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. Approximately 2,700 hunters harvested 2,100 sage-grouse (Table 6) in 2011.

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 753 wings in 2011. 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. In 2011, wildfires burned 77,100 acres of key sagebrush habitat in southern Idaho. 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.

The Department works on cooperative habitat improvement projects for sage-grouse statewide. From 2002 through 2010, the Idaho Governor's Office of Species Conservation has received funding from a U.S. Fish and Wildlife Service appropriation for sage-grouse conservation in Idaho. Most of this money was distributed via a competitive grants program. These grants have helped fund 57 sage-grouse habitat projects, potentially improving up to 39,000 acres. Types of habitat improvement projects included fire restoration; re-seeding with native grasses and forbs; sagebrush seedling planting; control of invasive plants and noxious weeds; fuel breaks; and spring and wet meadow fencing to protect late brood-rearing habitat.

Management Studies

The competitive grants program has also helped fund 55 sage-grouse inventory and monitoring projects. Inventory and monitoring projects included habitat inventory and mapping, sage-grouse lek surveys, and sage-grouse radio-telemetry projects. Telemetry projects were sponsored by local working groups and were designed to characterize seasonal movements and identify important seasonal habitats.

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 updated 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. There are currently 12

active LWGs and 10 have completed local plans. The 2006 State Plan, LWG Plans, and other information on sage-grouse conservation and management is available at: http://fishandgame.idaho.gov/public/wildlife/sageGrouse/

During 2010, the NRCS developed the Sage-grouse Initiative (SGI) to help private landowners voluntarily conserve sage-grouse populations and habitat on their working lands. In Idaho, the NRCS identified potential threats to sage-grouse and their habitat and determined specific conservation practices to reduce those threats. Technical and financial assistance through EQIP and WHIP are available for implementing specific practices. The ultimate goal of the SGI is to help ensure sustainable use of sagebrush habitat by both ranchers and wildlife such as sage-grouse.

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 2011 season framework was unchanged (Appendix A) with a 31-day season from 1-31 October. The bag and possession limits remained at 2 and 4, respectively.

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 slightly in the Southeast Region, but decreased in Upper Snake Region from 2010 to 2011.

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 2011, approximately 1,800 hunters harvested 2,900 sharp-tailed grouse (Table 1). The estimated number of hunters and harvest in 2011 were lower than those reported in 2010 (Table 7). Sharp-tailed grouse hunters spent fewer days hunting (4,400) than in 2010 (6,300).

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. In 2011, the Department requested and received another 40,000 acres to enroll in CRP-SAFE. 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.

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

The chukar harvest in 2011 increased from the third lowest estimated harvest since 1997.

Season Framework

In 2000, a single season framework was applied statewide with a closing date of 15 January. However, the season framework was split into 3 areas with 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 (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 continues to conduct a flight safety review during which needs/risk assessment are completed. There are some surveys that were discontinued, some that are being considered in greater detail, and others that will continue, but with a greater emphasis on efficiency and safety to reduce risks for those involved.

Aerial chukar counts were discontinued in 2011.

Harvest Characteristics

In 2011, approximately 9,800 hunters harvested an estimated 78,600 chukars (Table 1). The number of hunters (Table 8) during 2011 (9,800) was similar to 2010 (10,000). Hunters hunted more days (61,200 vs. 43,900), and harvested more birds (78,600 vs. 57,100) in 2011 than in 2010. Southwest Region hunters (6,100) harvested overwhelmingly more chukars (65,600; 83% of statewide harvest) than any other region.

Habitat Conditions

Spring and early summer conditions were wetter than average in 2012. 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. Upland game density-dependent hunting pressure is well documented in pheasant and quail populations (George et al. 1980, Vance and Ellis 1972, Kabat and Thompson 1963, Galliziolli and Swank 1958, Bennitt 1951). In fact, Robinson et al. (2009) report that hunter harvest accounted for only 8% of documented chukar mortality in Utah.

Gray Partridge

Abstract

The 2011 gray partridge harvest was lower than in 2010. Habitat Improvement Program efforts and CRP will work to improve gray partridge habitat statewide. The Department has 3 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.

Season Framework

In 2000, a single season framework was applied statewide with a closing date of 15 January. However, the season framework was split into 3 areas with 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 (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 2011, 6,900 hunters harvested an estimated 45,800 gray partridge (Table 1). Fewer hunters (Table 9) pursued gray partridge during 2011(6,900) than in 2010 (8,700). Hunters in the Southwest Region (3,000) harvested more gray partridge (27,000; 60% 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 wetter than average in 2012. 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 100,000 acres of irrigated farmland in south-central and eastern Idaho. CREP lands will be planted to conservation cover that should benefit gray partridge.

Wild Turkey

Abstract

In Idaho, most suitable wild turkey habitat has been stocked and populations seem to have stabilized during recent years. Harvest in 2011was higher than in 2010. 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 2010 (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, Clearwater, Southwest, and Southeast regions. An early, seven-day general season youth-only hunt was offered in Game Management Units (GMU) open to general season turkey hunting from 8-14 April. In addition, up to 3 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 6 turkeys during the year with no more than 2 bearded turkeys per spring and 5 turkeys (either sex) during fall. 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 in 2011 (5,400) than in 2010 (4,900). Telephone surveys indicated 3,231 and 1,439 turkeys were harvested during general spring and general fall hunts, respectively (Table 10). Hunters harvested 271 and 81 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

No turkeys were trapped and translocated in Idaho (Table 11) during winter 2011-2012.

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 2011 season framework remained unchanged from 2010 (Appendix A). Bag and possession limits were 10 and 20, respectively.

Population Surveys

Call-count surveys (Table 12) are conducted annually and data are provided to the U.S. Fish and Wildlife Service (USFWS) who monitor dove numbers nationwide. The number of doves heard per mile fluctuated among regions.

Harvest Characteristics

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

Trapping and Banding

Since 2003, Idaho (all regions except the Panhandle) has participated in a Pacific Flyway-wide effort to trap and band mourning doves. In 2011, 359 doves were banded (Table 13). Since 2003, 5,605 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 and possession limits to 10 and 20, respectively. The 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. Seasons for cottontail rabbits and snowshoe hares (*Lepus americanus*) remain unchanged from 2007 (Appendix A).

Harvest Characteristics

In 2011, approximately 2,100 hunters harvested 5,500 rabbits (Table 14). An estimated 700 hunters harvested approximately 2,300 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, 2000-present.

Year	Pheasant	Forest grouse	Gray partridge	Chukar	Quail	Sage-grouse	Sharp-tailed grouse	Turkey
2000	113,100	85,900	94,800	134,400	168,800	7,200	5,800	4,893
2001[a]	87,100	149,400	41,800	89,300	119,600	7,000	4,100	4,483
2002	58,600	147,700	26,600	109,000	88,600	7,600	3,500	5,068
2003	77,500	182,800	52,500	130,800	140,400			6,491
2004	69,300	134,100	26,700	110,800	124,100	8,100	4,800	5,384
2005	97,600	95,100	44,000	104,100	178,700	10,500	5,200	6,463
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
10-year average	78,700	118,100	37,000	87,700	118,000	7,700	5,100	5,600

[a] New telephone survey methodology.

Table 2. Season framework, estimated pheasant hunter numbers, and harvest in Idaho, 2000-present.

Year	Season (days)[a]	Daily bag[a]	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2000	72	3	22,000	113,100	140,000	5.14	0.81
2001[b]	73	3	27,300	87,100	142,300	3.29	0.61
2002	74	3	24,600	58,600	115,400	2.38	0.51
2003	75	3	24,500	77,500	125,500	3.16	0.62
2004	77	3	24,300	69,300	118,400	2.86	0.59
2005	78	3	24,300	97,600	138,700	4.02	0.70
2006	72	3	30,000	99,300	146,900	3.40	0.68
2007	73	3	25,200	91,600	134,900	3.64	0.68
2008	75	3	23,700	98,400	121,200	4.15	0.81
2009	76	3	20,100	67,600	110,100	3.36	0.61
2010	77	3	20,700	64,400	107,700	3.11	0.60
2011	76	3	20,500	63,200	120,600	3.09	0.52
10-year average			23,800	78,700	124,000	3.32	0.63

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

Table 3. Season framework, estimated quail hunter numbers, and harvest in Idaho, 2000-present.

Year	Season (days)[a]	Daily bag[a]	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2000	107	10	10,700	168,800	66,400	15.79	2.54
2001[b]	108	10	12,000	119,600	59,100	9.98	2.02
2002	102	10	12,300	88,600	51,100	7.20	1.73
2003	103	10	11,700	140,400	59,500	12.00	2.36
2004	136	10	12,100	124,100	60,500	10.22	2.05
2005	137	10	11,000	178,700	74,600	16.22	2.40
2006	138	10	13,000	157,200	86,000	12.10	1.83
2007	139	10	11,700	112,100	66,100	9.61	1.70
2008	134	10	11,600	93,500	69,900	8.08	1.34
2009	135	10	10,100	83,100	49,800	8.25	1.67
2010	136	10	10,000	83,100	52,800	8.28	1.57
2011[d]	123	10	9,300	85,300	54,600	9.16	1.56
10-year average			11,300	114,600	62,500	10.11	1.82

[a] Season length and bag in Canyon County.
[b] New telephone survey methodology.
[c] Special 2-week extension 18-31 January 1997.
[d] Season opener was October 1 in 2011.

Table 4. Season framework, estimated forest grouse hunter numbers, and harvest in Idaho, 2000-present.

Year	Season (days)[a]	Daily bag[a]	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2000	122	4	14,200	86,000	73,500	6.07	1.17
2001[b]	122	4	31,900	149,400	181,700	4.69	0.82
2002	122	4	33,500	147,700	199,500	4.41	0.74
2003	122	4	33,600	182,800	193,000	5.44	0.95
2004	122	4	34,100	134,100	210,800	3.93	0.64
2005	122	4	24,400	95,100	144,800	3.90	0.66
2006	122	4	36,900	129,800	251,300	3.50	0.52
2007	122	4	25,400	113,400	212,200	4.46	0.53
2008	122	4	21,500	68,900	192,500	3.21	0.36
2009	122	4	23,300	93,200	207,800	4.00	0.45
2010[c]	124	4	20,100	66,800	163,900	3.33	0.41
2011	124	4	21,700	72,000	186,900	3.32	0.39
10-year average			27,500	110,400	196,300	3.95	0.56

[a] Season length and bag in southwestern Idaho where the majority of forest grouse hunting occurs.
[b] New telephone survey methodology.
[c] Season opener was moved to August 30 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, 2000-present.

Year	Season (days)[a]	Daily bag[a]	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2000	7	1	5,900	7,200	12,900	1.22	0.56
2001[c]	7	1	5,300	7,000	12,100	1.32	0.58
2002	7	1	5,800	7,600	13,000	1.31	0.58
2003[d]	7	1					
2004	7	1	7,400	8,100	15,300	1.09	0.53
2005	7	1	6,800	10,500	14,700	1.56	0.72
2006	7	1	8,900	12,500	18,000	1.41	0.69
2007	7	1	4,700	4,940	9,800	1.04	0.50
2008	23	2	5,000	7,700	12,200	1.53	0.64
2009	23	2	4,400	7,200	9,700	1.64	0.74
2010	7	1	3,500	4,100	7,000	1.17	0.59
2011			2,700	2,100	5,000	0.79	0.43
10-year average			5,500	7,200	11,600	1.28	0.60

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

Table 7. Season framework, estimated sharp-tailed grouse hunter numbers, and harvest in Idaho, 2000-present.

Year	Season (days)[a]	Daily bag[a]	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2000	31	2	2,800	5,800	7,700	2.06	0.75
2001[c]	31	2	2,200	4,100	6,000	1.83	0.67
2002	31	2	1,900	3,500	5,100	1.84	0.69
2003[d]	31	2					
2004	31	2	2,300	4,800	6,100	2.08	0.79
2005	31	2	2,200	5,200	6,300	2.34	0.83
2006	31	2	3,000	6,900	8,300	2.30	0.82
2007	31	2	2,200	4,900	6,100	2.27	0.80
2008	31	2	2,300	5,000	6,900	2.19	0.72
2009	31	2	2,200	5,600	6,300	2.53	0.88
2010	31	2	2,000	6,100	6,400	2.26	0.80
2011	31	2	1,800	2,900	4,400	1.63	0.64
10-year average			2,200	5,000	6,200	2.24	0.79

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

Table 8. Season framework, estimated chukar hunter numbers, and harvest in Idaho, 2000-present.

Year	Season (days)[a]	Daily bag[a]	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2000	122	8	9,800	134,400	85,600	13.72	1.57
2001[b]	123	8	13,800	89,300	61,600	6.46	1.45
2002	117	8	15,400	109,000	71,500	7.08	1.52
2003	118	8	16,600	130,800	76,400	7.88	1.71
2004	136	8	16,700	110,800	71,200	6.62	1.56
2005	137	8	12,600	104,100	61,000	8.29	1.71
2006	138	8	15,100	108,900	65,700	7.20	1.66
2007	139	8	11,300	46,900	44,900	4.17	1.05
2008	134	8	9,300	59,400	57,500	6.40	1.03
2009	135	8	8,700	71,100	45,900	8.16	1.55
2010	136	8	10,000	57,100	43,900	5.72	1.30
2011[c]	123	6	9,200	78,600	61,200	8.51	1.28
10-year average			12,500	87,700	60,000	7.00	1.44

[a] Season length and bag in Canyon County.
[b] New telephone survey methodology.
[c] Season opener was October 1 in 2011.

Table 9. Season framework, estimated gray partridge hunter numbers, and harvest in Idaho, 2000-present.

Year	Season (days)[a]	Daily bag[a]	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2000	122	8	12,400	94,800	81,000	7.62	1.17
2001[b]	123	8	10,900	41,800	58,100	3.83	0.72
2002	117	8	7,800	26,600	39,700	3.41	0.67
2003	118	8	10,500	52,500	48,700	5.00	1.08
2004	136	8	8,800	26,700	42,800	3.02	0.62
2005	137	8	9,100	44,000	54,000	4.88	1.00
2006	138	8	8,500	55,100	50,100	6.40	1.10
2007	139	8	6,600	29,100	36,000	4.44	0.81
2008	134	8	5,900	16,800	29,900	2.86	0.56
2009	135	8	6,500	29,400	45,800	4.49	0.64
2010	136	8	8,700	48,000	56,700	5.50	0.85
2011[c]	123	6	6,900	45,800	53,000	6.65	0.86
10-year average			7,900	37,400	45,700	4.67	0.82

[a] Season length and bag in Canyon County.
[b] New telephone survey methodology.
[c] Season opener was October 1 in 2011.

Table 10. Season framework and estimated turkey harvest in Idaho, 2000-present.

	General season framework			General season harvest			Controlled hunts			Total	Total
Year	Spring	Fall	Bag[a]	Spring	Fall	Total	Hunts	Permits	Harvest	harvest	tags sold[b]
2000	4/15-5/25	10/1-31	3	4,054	201	4,255	12	1,183	638	4,893	18,173
2001	4/15-5/25	9/15-30	3	2,987	844	3,831	9	1,094	652	4,483	21,233
2002	4/15-5/25	9/15-10/31	3	3,263	1,015	4,278	13	1,567	790	5,068	24,417
2003	4/15-5/25	9/15-10/31	2	4,221	2,111	6,332	11	382	159	6,491	21,639
2004	4/15-5/25	9/15-10/31	3	2,770	2,180	4,950	15	434	183	5,384	25,763
2005	4/15-5/25	9/15-10/31	3	4,064	2,213	6,277	14	408	186	6,463	32,654
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[d]	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[e]	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[g]	4/15-5/25	9/15-12/31	6	3,003	1,469	4,472	20[f]	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
10-year average				3,400	1,800	5,200	16	780	320	5,600	30,000

[a] Bearded turkey only in spring hunts, either sex in fall hunts. Instituted a second spring tag in 1999, valid 10-25 May.
[b] Sportsman Package tags not included in total tags sold until 1998.
[c] One controlled hunt had unlimited permits; number of permits drawn unavailable.
[d] Special Unit Tags initiated in Fall 2007; three extra tags available in GMUs 1, 2, 3, and 5.
[e] Three spring hunts and three fall hunts were added in 2008.
[f] One fall hunt was added in 2010.
[g] The waiting period for use of the extra tag in spring was eliminated

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Table 11. Turkey translocation history for Idaho, 2000-present.

Year	Sub-species[a]	Release site	Source	Birds released
2000	M	GMUs 11, 13, 14, 15, 18, 63A	Idaho	332
	U	SE Region		50
2001	M	GMUs 15, 63A	Idaho	436
	R	GMU 54	California	41
	U	GMU 71		136
2002	M	GMUs 10A, 11, 14, 15, 63A, 67, 69	Idaho	227
2003	H	GMUs 11, 63A, 67, 69	GMUs 1, 39	196
2004	M	GMUs 5, 8A, 11, Nevada	Idaho	227
2005	M	GMUs 5, 11, 13, 15, 33, 39, 54, Nevada	GMUs 1, 3, 13, 54	227
2006	M	GMUs 1, 4A, 11, 39	GMU 1	220
2007	R	GMU 38 Little Banks Island	Washington	34
	M	GMU 39 Bender, Cottonwood, Willow	GMU 1	99
	R	GMU 54 Green Creek	GMU 54	17
	M	Utah	GMU1	24
	M	GMU 11 Benton Meadows, Eagle Creek	GMU 1	130
	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
Total				6,583

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

[b] Approximate number of game farm birds released in Boundary County by private citizens.

Table 12. Mourning dove call-count survey results for Idaho, 2000-present.

Year	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7
2000							
Routes (miles) counted	3 (60)	1 (20)	3 (60)	4 (80)	3 (60)		1 (20)[a]
Doves per mile	0.33	0.15	1.20	1.59	0.4		0.00
2001							
Routes (miles) counted	3 (60)	1 (20)	6 (120)	5 (100)	3 (60)		1 (20)
Doves per mile	0.17	0.10	1.66	1.33	0.2		0.15
2002							
Routes (miles) counted	2 (40)	2 (40)	6 (120)	5 (100)	3 (60)		1 (20)
Doves per mile	0.33	0.13	1.33	1.04	1.1		0.30
2003							
Routes (miles) counted	2 (40)	2 (40)	6 (120)	4 (80)	3 (60)		1 (20)
Doves per mile	0.43	0.05	1.69	0.73	0.6		0.35
2004							
Routes (miles) counted		2 (40)	6 (120)	5 (100)	3 (60)		1 (20)
Doves per mile		0.29	1.39	1.36	0.6		0.05
2005							
Routes (miles) counted	2 (40)	1 (20)	6 (120)	5 (100)	3 (60)		1 (20)
Doves per mile	1.80	0.40	1.10	1.36	0.6		0.60
2006							
Routes (miles) counted	2 (40)	2 (40)	6 (120)	5 (100)	3 (60)		1 (20)
Doves per mile	0.30	0.67	2.36	2.00	0.6		1.30
2007							
Routes (miles) counted	2 (40)	1 (20)	6 (120)	5 (100)	3 (60)		1 (20)
Doves per mile	0.40	0.13	1.36	0.45	0.58		1.30
2008							
Routes (miles) counted	3 (60)	2 (40)	6 (120)	5 (100)	3 (60)		1 (20)
Doves per mile	0.65	0.88	2.45	1.84	2.52		0.65
2009							
Routes (miles) counted	3 (60)	2 (40)	6 (120)[a]	5 (100)	3 (60)		1 (20)
Doves per mile	0.15	0.30	2.27	1.61	3.12		1.15
2010							
Routes (miles) counted	2 (40)	2 (40)	4 (80)	5 (100)	0 (00)		1 (20)
Doves per mile	0.78	0.55	2.44	2.23	-		0.05
2011							
Routes (miles) counted	3 (60)	2 (40)	6 (120)	5 (100)	3 (60)		1 (20)
Doves per mile	0.35	0.25	2.38	1.32	2.03		0.15
2012							
Routes (miles) counted	3 (60)	2 (40)	6 (120)	4 (80)	3 (60)		1 (20)
Doves per mile	0.20	0.13	1.81	1.94	1.52		0.15

[a] Route relocated.

Table 13. Mourning doves banded in Idaho, 2003-present.

Year	Adult Male	Adult Female	Unknown	Hatch Year	Unknown	Total
2003	125	97	14	211	0	447
2004	313	124	49	371	0	857
2005	270	180	69	319	1	839
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						
Total	1941	866	261	2117	61	5246

Table 14. Estimated cottontail rabbit and snowshoe hare harvest in Idaho, 2003-present.

	Cottontail rabbit		Snowshoe hare	
Year	Hunters	Cottontails harvested	Hunters	Hares harvested
2003	4,043	26,157	619	1,488
2004	4,460	27,500	1,100	2,000
2005	2,890	17,000	590	2,540
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
5-year average	2,800	13,300	640	1,500

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, 2011 to June 30, 2012

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 Department's Coeur d'Alene River WMA near Harrison ended up being the only place available to release birds. In 1981, the region recommended that all pheasant releases be discontinued and the program was eliminated effective fall 1982.

Harvest Characteristics

Most pheasant hunting in Panhandle Region occurs in the Palouse country around Worley, Plummer, and Tensed. Remnant wild populations still occur and provide fair hunting for those people who have permission to hunt on private land. A telephone survey of 2010 upland game hunters estimated that 450 hunters harvested 1232 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 Panhandle Region has declined to a low point due to modern clean farming techniques and monoculture crops. Large complexes of seed-bluegrass fields are burned annually, severely limiting habitat. The Department no longer supplements the wild population nor releases birds directly for harvest. There is growing public sentiment against the large-scale field burning in the Palouse. If burning becomes severely restricted in the future, pheasant cover may improve, and additional grain farming could substantially improve pheasant populations.

Quail

Abstract

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

Harvest Characteristics

Quail hunting effort in Panhandle Region is very low. Harvest information obtained from the statewide telephone survey indicates an estimated 356 quail hunters harvested 2,013 quail during 2011 (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, Panhandle Region was included with other parts of the state that offered a quail hunting season beginning in 2003. Low hunter participation and limited access to quail in the urban interface is not anticipated to negatively impact the Panhandle quail population or produce significant levels of harvest.

Forest Grouse

Abstract

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

Harvest Characteristics

A telephone survey of 2011 upland game hunters estimated that 5,260 hunters harvested 17,336 forest grouse (Table 3). The trend in harvest indicates a decline in forest grouse hunting since 1983. Of the forest grouse harvested during 2011, approximately 83% were ruffed grouse, 15% blue/dusky grouse, and 2% 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 blue grouse.

Management Implications

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

Gray Partridge

Abstract

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

Harvest Characteristics

Gray partridge hunting effort in Panhandle Region is very low. A few hunters are checked on the Rathdrum Prairie and the rolling hill country near Worley and Plummer. Historic harvest information obtained from the statewide telephone survey is believed to reflect, almost entirely, Panhandle Region hunters hunting in other regions. Harvest information obtained from the statewide telephone survey indicates an estimated 97 gray partridge hunters harvested 6 birds during 2011 (Table 6). 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

The 2012 spring season success rate was 14.6 hunter days per bird (Table 6), an increase from most previous years. Hunters averaged 9.6 days to harvest a fall turkey in 2011.

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 2011-2012 winter.

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. There is a downward trend in the number of turkeys killed per hunter. Turkey populations appear to now be at more 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.

In May 2012, two call-count surveys were completed in Panhandle Region (Table 7). One route is in Kootenai County and the other is in Boundary County. Route replacement in recent years precludes direct comparison of subsequent route data with that prior to 2002.

Harvest Characteristics

In north Idaho, most mourning doves leave before the season opens. The season opener (1 September) 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 telephone harvest survey has been conducted since 1995.

Management Implications

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

Snowshoe Hare

Background

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

Snowshoe hare hunting effort in Panhandle Region is very low. Harvest information obtained from the statewide telephone survey indicates an estimated 86 hunters harvested no hares during 2011 (Table 8). 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 snowshoe hare population.

American Crow

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

Table 1. Estimated pheasant harvest, Panhandle Region, 2001-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2001	354	421	2,379	1.2	0.2
2002	1,122	4,240	7,116	3.8	0.6
2003	749	2,028	2,399	2.7	0.9
2004	854	4,325	3,096	5.1	1.4
2005	1,214	3,993	4,468	3.3	0.9
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
3-year avg.	549	1,913	3,499	3.5	0.6

[a] Telephone survey data at the regional level were not collected in 2000.

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

Year	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2003	123	707	370	5.8	1.9
2004	282	1627	1725	5.8	0.9
2005	241	861	830	3.6	1.0
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
3-year avg.	309	1,876	1,908	6.1	1.0

Table 3. Estimated forest grouse harvest, Panhandle Region, 2001-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2001	4,473	19,727	35,964	4.4	0.5
2002	5,799	29,688	48,516	5.1	0.6
2003	5,918	30,746	45,273	5.2	0.7
2004	6,086	28,548	53,736	4.7	0.5
2005	6,016	27,888	40,880	4.6	0.7
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
3-year avg.	4,418	15,600	42,294	3.5	0.4

[a] Telephone survey data at the regional level were not collected in 2000.

Table 4. Relative contribution of grouse species to the forest grouse harvest in the Panhandle Region, 2010.

Species	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
Ruffed grouse	4,080	13,988	30,469	3.4	0.5
Blue grouse	1,601	2,482	7,476	1.6	0.3
Spruce grouse	752	322	4,883	0.4	0.1
Unknown forest grouse	631	543	4,020	0.9	0.1
Combined	5,260	17,336	46,848	3.3	0.4

Table 5. Estimated gray partridge harvest, Panhandle Region, 2001-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2001	99	20	196	0.2	0.1
2002	132	83	498	0.6	0.2
2003	198	506	566	2.6	0.9
2004	78	250	301	3.2	0.8
2005	524	922	1,887	1.8	0.5
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
3-year avg.	248	1,244	2,589	5.0	0.5

[a] Telephone survey data at the regional level were not collected in 2000.

Table 6. Estimated turkey harvest, Panhandle Region, 2000-present.

Year Hunt	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
2000						
Controlled Spring	2	525	464	232	6.2	1,431
General Spring	1		3,140	799	14.0	11,206
Controlled Fall	1	500	131	81	2.2	175
2001						
Controlled Spring	1	525	475	232	9.1	2,113
General Spring	1		1,490	363	15.2	5,503
General Fall	1		456[b]	268	4.5	1,208
2002						
Controlled Spring	1	525	567	426	7.2	3,100
General Spring	1		1,173	379	11.4	4,350
Late Spring/Fall[b]	1		524	110	17.8	1,968
2003						
Controlled	0					
General Spring	1		1,990	522	15.1	7,909
Late Spring	1		573	360	6.6	2,369
General Fall	1		1,053	495	8.5	4,204
2004						
General Spring[c]	1			815	12.3	9,995
General Fall	1		1,590	564	11.5	6,466
2005						
General Spring[c]	1		2,988	1,045	9.6	10,081
General Fall	1		1,477	616	8.2	5,058
2006						
General Spring[c]	1		2,998	934	10.7	10,000

Table 6 continued

Year Hunt	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
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	10,005
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
2011						
General Spring[c]	1		3,009	772	14.6	11,266

[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, 2000-present.

Year	Routes (miles) counted	Doves heard	Doves seen	Doves heard/mile	Doves seen/mile
2000	3 (60)	20	9	0.33	0.15
2001	3 (60)	10	9	0.17	0.15
2002	2 (40)	13	7	0.33	0.18
2003	2 (40)	17	8	0.43	0.20
2004	2 (40)	4	2	0.1	0.05
2005	2 (40)	3	2	1.8	0.05
2006	2 (40)	12	12	0.30	0.30
2007	2 (40)	16	15	0.40	0.38
2008	2 (40)	16	14	0.40	0.35
2009	1 (20)	3	0	0.15	0.00
2010	2 (40)	15	16	0.38	0.40
2011	3 (20)[a]	2	0	0.10	0.00
2012	1 (20) [a]	1	0	0.05	0.00
10-year average		8.9	6.9	0.26	0.20

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

Year	Hunters	Hares harvested	Days hunted	Hares per hunter	Hares per hunter day
2003	56	59	142	1.0	0.4
2004	254	905	1,043	3.6	0.9
2005	87	48	126	0.6	0.4
2006	164	133	856	0.8	0.2
2007	96	155	692	1.6	0.2
2008	178	110	1,356	0.6	.01
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
3-year average	101	218	1,233	2.2	0.2

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, 2011 to June 30, 2012

CLEARWATER REGION

Climatic Conditions

According to the United States Department of Agriculture Natural Resources Conservation Service, October of 2011 brought ample rains followed by early November snow to the Clearwater River basin. After mid-November, Idaho entered a dry spell until late December storms arrived, however storms deposited rain at elevations over 7,000 feet in central Idaho. As of 1 January 2012, the snowpack in the Clearwater and Salmon River basins was at 77% and 72% of average respectively. January storms boosted snowpack to 92% and 84% of average for the Clearwater and Salmon River basins, respectively, as of 1 February. Few but powerful storms produced enough snow to maintain snowpack at near average levels for the Clearwater basin through 1 March. The Salmon River basin was at 86% of average on 1 March while the South Fork Salmon River drainage was only at 77% of average. Above normal precipitation for the Clearwater and Salmon River basins boosted snowpack to 108% and 100% of normal, respectively, by 1 April. Snowmelt for the Clearwater basin exhibited an on and off pattern due to three cooling periods that prolonged runoff with 3 distinct peaks resulting in a 1 June snowpack at 109% of average. June-July streamflow forecasts predict near average flows for the Clearwater basin. Snowmelt for the Salmon River basin progressed faster than normal resulting in a 1 June snowpack at 63% of average.

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 2011 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 2001. A total of 27 pheasants were observed on these routes in 2011 compared to only 5 pheasants observed in 2010. There was only one pheasant observed in 2009 and 38 pheasants were observed in 2008 (Table 1). The percentage of unsuccessful females for 2008 increased from 17% in 2007 to 28%, while the number of juveniles per 100 adult females remained the same at

400:100. There is no data for the percentage of unsuccessful females or juveniles per 100 adult females for 2009 or 2010 because no females were observed during the survey. The percentage of unsuccessful females was 25% in 2011 and there were 350 juveniles per 100 adult females. Other species recorded on the routes included quail, gray partridge, doves, cottontail rabbits, and a variety of raptors.

Harvest Characteristics

A telephone survey estimated that 1,067 hunters harvested 3,095 pheasants in 2011 (Table 2). The number of hunters and birds harvested decreased from 2010 when an estimated 1,442 hunters harvested 4,774 birds. The number of pheasants harvested per hunter-day decreased from 0.9 in 2010 to 0.5 in 2011, below the 3-year average of 0.6. Brood survey results may indicate slightly increased production.

Management Implications

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

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

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

California Quail

Population Surveys

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

Harvest Characteristics

Telephone survey data for the Clearwater Region estimated that 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. The 2011 data indicated decreased harvest with 732 hunters harvesting an estimated 7,329 birds; however the number of birds harvested per hunter increased from 9.4 to 10.0.

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, 2 management plans, several popular articles and a technical manuscript on the work. Results include information on seasonal habitat use and survival in Idaho as well as new habitat and population survey techniques. A summary of this work is provided in a 2004 Department report by Ann Moser and is available at the Boise Headquarters office.

Trapping and Translocation

Another mountain quail project was begun in 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 2006. 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 telephone harvest survey information on forest grouse has been variable (Table 4). Harvest information was not collected at the regional level from 1996-2000 due to budgetary constraints. Telephone survey data for the region estimated that 2,952 hunters harvested 12,383 forest grouse in 2011, down from 2010 when 2,862 hunters harvested 13,323 forest grouse.

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 were believed to have been eliminated by the mid-1930s. Factors contributing to the decline and eventual loss of the species from the area were over-hunting, overgrazing by livestock, and intensified agricultural practices resulting in sharp-tail grouse 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 spring 1995 to 1997. Radio-marked chukars along the breaks of the Salmon and Snake rivers were monitored to define habitat use, movements, distribution patterns, nesting chronology and success, and overall mortality causes and rates. A final report was completed in 1998.

Since 1988, the breaks of the Snake River have been scheduled for annual surveys from Tenmile Creek upstream to Corral Creek by helicopter (Table 5). Since 1991, the Salmon River breaks from White Bird to Maloney Creek have also been scheduled to be surveyed annually. Helicopter surveys have been 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.

Harvest Characteristics

Fluctuating harvest rates over the past several years likely reflect changes in productivity related to weather impacts. Telephone survey data estimated that 919 hunters harvested 4,924 chukar in 2011, down from 2010 when 1,357 hunters harvested 10,684 chukar (Table 6).

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.

Gray Partridge

Population Surveys

No standardized population surveys are currently conducted for gray partridge in the Clearwater Region. They are counted incidentally during pheasant brood routes.

Harvest Characteristics

Harvest information on gray partridge has varied. For the 2011 season it was estimated that 904 hunters harvested 4,470 gray partridge, slightly down from 2010 when an estimated 1,221 hunters harvested 4,785 gray partridge (Table 7).

Management Implications

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

Wild Turkey

Population Surveys

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

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 (Table 8). 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. In 2011, there were 2,041 birds harvested, compared to the ten-year average of 2,313 birds harvested.

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 or if turkeys were negatively impacting livestock operations or in areas with significant snowfall and corresponding lack of natural winter feed. The more recent expansion of fall turkey hunting opportunities in the region has also reduced the necessity to respond to sites that were previously the focus for feeding/trapping efforts.

Trapping and Translocation

Trapping efforts are now focused on sites where turkeys have become a nuisance on private property by contaminating livestock feed or by damaging agricultural crops as they begin to emerge. 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).

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

There are 2 mourning dove call-count routes conducted in the Clearwater Region. By themselves, the routes do 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 accurate index to statewide dove production may be achieved.

Harvest Characteristics

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

Trapping and Banding

Clearwater Region has participated in a statewide effort to trap and band mourning doves since 2003 (Table 11). A delayed start and problems with trap-site selection resulted in no doves trapped in 2003. In 2004, a total of 63 doves were banded at 3 sites. All doves received a standard leg band; hatch-year doves also received a reward band. In 2005, a total of 100 doves were banded at 2 sites. Four individuals were recaptured during the course of the 2005 season (2 adult males and 2 hatch-year birds). Annual capture efforts have continued to yield variable results (range of 7 to 61 doves, 2006-2011). A total of 40 doves were banded in 2011.

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 upland areas in Clearwater Region.

Harvest Characteristics

Cottontail harvest appears to be well under minimum sustainable levels. For the 2011 season, an estimated 42 hunters harvested 157 cottontails, down from 2010 when an estimated 146 hunters harvested 305 cottontails (Table 12). In 2009, there were 100 hunters that harvested an estimated 29 rabbits, down from 2008 when 200 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 levels are likely below sustainable levels. For the 2011 season, one snowshoe hare was harvested by an estimated 55 hunters (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, 2000-present.

Year	Routes (miles) counted	Birds per mile	Percent unsuccessful females	Juv:100 adult females	*n*	Average brood size
2000	11 (220)	0.4	37	321	95	5.1
2001[a]	12 (240)	0.5	43	478	119	6.1
2002	12 (240)	0.2	23	388	46	5.0
2003	12 (240)	0.5	9	347	114	3.6
2004	12 (240)	0.8	32	763	187	6.0
2005	12 (240)	0.8	48	226	199	4.5
2006	12 (240)	0.2	33	383	49	8.2
2007	12 (240)	0.2	17	400	43	4.0
2008	12 (240)	0.2	28	400	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
10-year average	12 (240)	0.3	27	407	71	5.1

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

Table 2. Estimated pheasant harvest, Clearwater Region, 2001-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2001	3,021	13,092	16,146	4.3	0.8
2002	3,713	7,159	12,768	1.9	0.6
2003	2,700	13,437	17,957	5.0	0.7
2004	2,368	9,844	13,674	4.2	0.7
2005	2,487	12,632	14,054	5.1	0.9
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
3-year avg.	1,163	3,117	5,417	2.6	0.6

[a] Telephone survey data at the regional level were not collected in 2000.

Table 3. Estimated quail harvest, Clearwater Region, 2001-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2001	1,904	14,790	8,551	7.8	1.7
2002	1,983	12,994	8,396	6.6	1.5
2003	1,941	29,152	12,808	15.0	2.3
2004	1,815	17,038	8,368	9.4	2.0
2005	1,545	14,120	9,777	9.1	1.4
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
3-year avg.	813	7,152	5,337	8.7	1.3

[a] Telephone survey data at the regional level were not collected in 2000.

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

Year[a]	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2001	5,927	26,970	34,684	4.6	0.8
2002	7,342	40,972	54,342	5.6	0.8
2003	5,510	34,661	34,342	6.3	1.0
2004	4,950	22,000	34,845	4.4	0.6
2005	4,675	20,735	29,990	4.4	0.7
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
3-year avg.	3,352	16,023	37,509	4.7	0.4

[a] Telephone survey data at the regional level were not collected in 2000.

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	100.0	12.7
	2002	583	80	6.7	49.0	7.3
	2003[a]					
	2004	1,722	144	12.1	144.7	11.9
	2005	1,483	166	13.9	124.6	8.9
	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, 2001-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2001	1,775	9,871	6,324	5.6	1.6
2002	2,012	14,192	10,143	7.1	1.4
2003	1,806	11,663	8,292	6.5	1.4
2004	1,834	13,690	6,933	7.5	1.9
2005	1,450	13,115	6,025	9.1	2.2
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
3-year avg.	1,049	6,957	4,542	6.4	1.7

[a] Telephone survey data at the regional level were not collected in 2000.

Table 7. Estimated gray partridge harvest, Clearwater Region, 2001-present.

Year[a]	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2001	1,714	5,586	7,622	3.3	0.7
2002	1,421	7,860	7,562	5.5	1.0
2003	1,309	13,646	8,859	10.4	1.5
2004	1,073	4,174	4,774	3.9	0.9
2005	1,210	7,730	9,314	6.4	0.8
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
3-year avg.	868	3,927	4,706	4.7	0.9

[a] Telephone survey data at the regional level were not collected in 2000.

Table 8. Estimated turkey harvest by GMU, Clearwater Region, 2000-present.

	GMU[a]																	Total hunter
Year	8	8A	10	10A	11	11A	12	13	14	15	16	16A	17	18	19	20	Total	days
2000[b]	123	461		822	141	264	22	30	76	76	163			30			2,288	26,205
2001[c]	190	343	38	615	111	205	53	25	66	109	149		6	69			1,979	20,512
2002[b]	177	230	110	497	153	205	34	21	55	119	132		6	49			2,243	20,004
2003[c]	217	328	120	798	165	280	47	63	140	84	196		0	84			2,522	23,598
2004[c]	202	469	55	781	150	177	36	34	98	161	142		0	36			2,340	22,999
2005[c]	278	493	7	920	242	415	49	30	101	111	183	13	0	77	13	0	2,932	26,089
2006[c]	309	320	65	712	164	364	37	33	98	122	233	0	0	50	0	0	2,507	25,900
2007[c]	233	343	21	766	239	170	43	42	99	210	284	0	0	68	0	0	2,519	20,225
2008[c]	218	346	13	440	77	332	25	27	91	120	147	0	0	10	0	0	1,845	18,592
2009[c]	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[c]	202	424	29	597	156	206	15	74	85	68	95	2	2	83	2	1	2,041	20,288
10-year avg.	245	358	49	668	161	261	33	43	87	118	186	3	1	56	2	0	2,313	21,986

[a] GMUs having no data were not open to hunting during those years.

[b] Fall turkey harvest added to total; GMU of harvest and hunter days was not asked in survey.

[c] Fall general wild turkey harvest included.

Table 9. Turkey translocation history, Clearwater Region, 2000-present.

Year	Sub-species[a]	Release site Drainage-GMU	Source-GMU	Birds released M	F	Total	New or supplemental release
2000	M	Rapid River-18	Bott Ranch-10A	4	14	18	S
	M	Rice Cr-13	Groom, et al-11A	6	28	34	S
	M	Divide Cr-13	Bott, et al-10A	1	24	25	S
	M	Getta Cr-13	Gray, et al-10A	8	40	48	S
	M	Big Canyon Cr-13	Bott, et al-10A	6	14	20	S
	M	Wolf Cr-13	Duclercque-10A	6	11	17	S
	M	Hi-Range Cr-13	Gray, et al-10A	3	20	23	S
	M	Slate Cr-14	Gray-10A	2	23	25	S
	M	Red River-15	Duclercque-10A	1	22	23	S
	M	Billy Cr-11	Bott Ranch-10A	1	7	8	S
2001	M	Snake River-63A	Thompson-8	5	20	25	N
	M	Red River-15	Busta-10A	14	6	20	S
2002	M	Bob Smith Canyon Robber's Roost-71	Bott-10A	2	21	23	N
	M	Bob Smith Canyon Robber's Roost-71	Wilcox-10A	10	0	10	N
	M	Bob Smith Canyon Robber's Roost-71	Gray-10A	5	17	22	N
	M	Binninger-10A	Gray-10A	0	1	1	S
	M	Craig Mtn-11	Gray-10A	0	3	3	S
	M	Slate/Squaw Cr-14	Crabtree-15			29	S
	M	Main Snake below confluence-63A	Grandi-8	2	4	6	N
	M	Main Snake below confluence-63A	Jackson-10A	4	11	15	N
	M	Main Snake below confluence-63A	Crabtree-15	1	24	25	N
	M	Castle Cr-15	Lucas-15	0	14	14	S
	M	Eagle Cr-11	Lucas-15	0	13	13	S
2003	H	Eagle Cr-11	Harris-8A	0	10	10	S
	H	Eagle Cr-11	Weidner-11A	3	20	23	S
2004	H	SE Idaho	Frei-11	10	21	31	S
	H	Billy Cr-11	Frei-11	12	1	13	S
	H	Nevada	Frei-11	15	7	22	N
	H	F.S. Road 1963-8A	Frei-11	0	16	16	N
	H	Eagle Cr-11	Weidner-10A	10	26	36	S
	H	Benton Meadows-11	Weidner-10A	3	32	35	S
	H	Billy Cr-11	Weidner-10A	7	8	15	S
	H	Nevada	Weidner-10A	3	10	13	N
	H	SE Idaho	Nicolls-10A	2	9	11	S
	H	Nevada	Nicolls-10A	6	12	18	N
2005	H	Castle Cr-15	Stover-13	4	14	18	S

Table 9 continued

Year	Sub-species[a]	Release site Drainage-GMU	Source-GMU	Birds released M	F	Total	New or supplemental release
	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

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

Table 10. Mourning dove call-count survey results and estimated harvest, Clearwater Region, 2000-present.

	Call-count routes		Telephone survey[a]				
Year	Routes counted	Doves heard/mile	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2000[c]	1	0.15					
2001[b]	1	0.10					
2002	2	0.13					
2003	2	0.05					
2004	2	0.29					
2005[c]	1	0.40					
2006	2	0.67					
2007[c]	1	0.13					
2008	2	0.13					
2009	2	0.13					
2010	2	0.13					
2011	2	0.13					

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

[b] Route 0730 not surveyed.

[c] Route 1150 not surveyed.

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

	Adult					
Year	Male	Female	Unknown	Hatch-year	Unknown	Total
2003	0	0	0	0	0	0
2004	27	16	2	18	0	63
2005	33	19	4	44	0	100
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
Total	144	80	28	1234	6	382

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

	Cottontail rabbit		Snowshoe hare	
Year	Hunters	Cottontails harvested	Hunters	Hares harvested
2003	287	605	67	126
2004	325	383	123	240
2005	82	691	110	149
2006	227	587	92	144
2007	95	168	116	11
2008	200	171	19	0
2009	100	29	42	0
2010	146	305	80	186
2011	42	157	55	1
3-year average	96	164	59	62

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, 2011 to June 30, 2012

SOUTHWEST REGION

Climatic Conditions

Precipitation during fall 2010 was average, followed by average precipitation and snow cover during winter 2010-2011. Above average precipitation and late snows occurred during spring 2011. Upland bird species respond in different ways to cold, late spring. Typically sage-grouse and forest grouse favor more mild springs. However, adequate cover and forbs translates to higher brood survival. This did appear to be the case with sage-grouse, but late snows in the high country translated to poor nest success for forest grouse. Quail and chukar generally responded well to the late, wet spring.

Trapping and Translocation

No turkeys or other upland game birds were trapped and translocated into the Southwest Region during winter 2011-2012.

Pheasant

Population Surveys

Average number of young per brood based on survey routes was 3.9, considerably lower than the 10-year average of 5.0. Pheasant abundance was up compared to 2010-2011, but still well below the 10-year average (Table 1).

Harvest Characteristics

A telephone survey of upland game hunters was conducted in 2011 (Table 2). An estimated 8,903 hunters harvested 28,400 birds in the Southwest Region during fall 2011 for an average of 0.5 birds/hunter-day. Hunter participation increased 20% and number of pheasants harvested increased 15% compared to 2010. However, it took longer for hunters to harvest birds. Birds per hunter-day was 0.5, down 17% compared to 2010 and 29% below the 10-year average.

No pheasant check stations were operated in the southwest region in 2011 (Table 2). Harvest information is available via the annual telephone 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 corn damaged by pheasants. Cracker shells and salutes are no longer provided to landowners to alleviate the problem due to new Federal regulations.

Release of Pen-reared Pheasants

Adult roosters were purchased from a contractor and released on Department lands in Southwest Region. A total of 9,673 pheasants were released on Fort Boise, C. J. Strike, Payette River, and Montour WMAs from 16 October - 25 December 2011. These birds added significantly to hunter opportunity on these 4 heavily hunted WMAs.

Management Implications

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

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

Quail

Population Surveys

In 2011, regional wildlife staff observed 3.0 quail per mile along 460 miles of brood routes surveyed, which is exactly the same as 2010, but slightly lower (6%) than the 10-year average (Table 3).

Harvest Characteristics

An estimated 6,897 hunters harvested 66,906 quail in 2011 (Table 3). Hunter participation increased by 5% compared to 2010, and quail harvest increased13%. Quail harvest in 2011 was 19% below the 10-year average.

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 5,454 hunters harvested 19,361 forest grouse in the Southwest Region in 2011 (Table 4). Forest grouse harvest increased 13% compared to 2010, and was 6% higher than the 3-year average. Hunter participation decreased 28% compared to 2010.

A few birds are checked incidental to other activities. No check stations are run specifically for forest grouse. Wings from harvested grouse (179 dusky (blue) grouse, 151 ruffed grouse) were collected at 19 wing barrels distributed in GMUs 22, 31, 32, 32A, 33, and 39. Juvenile:adult ratios of 290:100 and 340:100 were documented for blue grouse and ruffed grouse, respectively (Table 5).

Management Implications

Forest grouse populations are dependent on good nesting and brood-rearing conditions 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 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 627 male sage-grouse along 13 lek routes in the Southwest Region during March-May 2012, a 15% decrease compared to 2011 (Table 6). We also conducted aerial surveys and observed 707 birds on 47 leks (includes leks counted on ground lek routes) along the Bruneau Escarpment in conjunction with the Bureau of Land Management, an 11% decrease compared to 2011.

Harvest Characteristics

One sage-grouse check station was operated on opening weekend (Mud Flat Road). Forty-five hunters harvested 26 birds. This was a decrease in number of birds harvested compared to 2010. The number of birds per hunter day was the same as 2010, but hours per bird was lower (Table 7). Sage-grouse production was very low in 2011, although not the lowest on record. A very late, wet spring likely equated to poor nest success. The number of juveniles per 100 females was 120, 50% lower than the 10-year average. The literature suggests that it takes 200 juveniles per 100 adults to sustain/increase a population (Table 8).

Management Implications

Lek survey information suggests sage-grouse populations are down considerably compared to recent years in most of the region. Populations are largely dependent upon habitat conditions and spring weather conditions during nesting and brood rearing. Diseases such as West Nile virus, which sage-grouse are highly susceptible to, provide an additional stressor to sage-grouse population persistence. West Nile virus was detected in sage-grouse in Owyhee County during summer 2006. Recruitment of birds into fall will be governed by uncontrollable weather and disease factors.

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

Sharp-tailed Grouse

Population Surveys

Sharp-tailed grouse lek counts have been conducted annually on the Hixon Sharptail Preserve in west-central Idaho since 1982. Counts of males on these leks decreased 32% compared 2011 but

and 36% below the 10-year average (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 those 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

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

Populations 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

Since 1984, helicopter surveys have been conducted in late August or early September along a portion of Brownlee and Lucky Peak Reservoirs to monitor chukar population trends. However, due to cost and safety issues, aerial chukar surveys will no longer be conducted. The last survey was 2010 at Brownlee (Table 10 and 11).

Harvest Characteristics

An estimated 6,084 hunters pursued chukar in Southwest Region and harvested an estimated 65,586 birds. Participation increased 13% and harvest increased 53% compared to 2010 (Table 12). From 2003-2011, the annual chukar harvest averaged 57,294 by 7,091 hunters.

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 is improved to moderate the effect of weather conditions. Several large wildfires burned significant portions of chukar habitat along Brownlee Reservoir, primarily within the Rocking M Conservation Easement during 2005. Vegetation rehabilitation efforts by the Department and BLM will largely be dependent on precipitation, and success of these efforts may be unknown for several years. It is unlikely these fires will negatively impact local chukar populations or hunting opportunity.

Gray Partridge

Population Surveys

Ten gray partridge were observed along 460 miles of pheasant brood survey routes in 2011 (Table 13). Because gray partridge are exceedingly sensitive to environmental factors, they 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

An estimated 2,976 hunters pursued gray partridge in Southwest Region and harvested an estimated 27,445 birds, the highest number ever recorded for gray partridge. Hunter numbers increased 6% and total number of birds harvested increased 53% compared to 2010 (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 Conservation Reserve Program or sagebrush rangeland. Deep and/or hardened snow adversely affect gray partridge survival over-winter, 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 sub-divisions.

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 in GMUs 33 and 39 but stable in GMUs 32 and 38.

Harvest Characteristics

Two controlled spring hunts were held for turkeys in Southwest Region in 2011, including a youth hunt. A general spring gobbler-only hunt was held in most GMUs in 2011. General fall hunts occurred in GMUs 31, 32, and 32A only. GMUs 33 and 39 were closed to fall turkey hunting beginning in 2006. Harvest estimates for 2011 spring controlled hunts show a 48% increase in turkeys harvested compared to 2010. General spring harvest show a 7% decrease compared to 2010. Overall hunter numbers were down 8% during 2011 (Table 14). No check stations were operated during this planning period.

Trapping and Translocation

No turkeys were translocated to the Southwest Region during winter 2011 (Table 15).

Depredations

A few turkey depredation or nuisance complaints were received during winter 2010-2011. Most of the complaints came from private landowners who wanted turkeys on their property for many years until populations became large enough to cause some trouble.

In some areas of the region, turkeys are dependent upon supplemental feed to survive the winter. During winter 2010-2011, Department personnel, in cooperation with members of the Idaho and local chapters of NWTF, distributed approximately 600 pounds of donated corn to sustain turkeys in Council. The amount of corn dispensed is the lowest ever and down 97% compared to 2009-2010 (4.5 tons distributed).

Management Implications

Turkey hunter numbers and harvest decreased in 2011 compared to 2010 during the general hunt, but increased almost 50% in the controlled hunt. Regional personnel have supported enhancement of turkey habitat by plantings of food plots specifically for wild turkey on USFS lands and by completing habitat improvement projects on Department-owned lands. Additionally, regional personnel have provided input into land-use plans on the importance of turkey habitat.

Wild turkey populations appear down in several popular hunting destinations in Southwest Region, including Idaho City, Garden Valley, and areas adjacent to the Andrus WMA. General

fall turkey hunting seasons in GMUs 33 and 39 have been closed since fall 2006 to minimize any negative impact fall hunting may have on local turkey populations.

Blood samples were collected from all turkeys transplanted in GMU 31. All Merriam's turkeys tested seropositive for *Mycoplasma synovia*. This bacteria has been linked to chronic respiratory disease and infectious sinusitis in turkeys and other wild birds. However, testing seropositive for a disease only means the turkeys are carriers of *Mycoplasma synovia* and will not necessarily die of infection.

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 participate in the USFWS annual mourning dove call-count routes in May each year. The Department does not report the data we obtain from the Federal coo count survey in this report (conducted in May each year) because our data are shipped to USFWS. In 2011, however, regional personnel also counted mourning doves while conducting pheasant brood routes. Approximately 6.1 mourning doves were counted per mile in 2011, the highest ever recorded and 26% higher than 2010 (Table 16).

Trapping and Banding

Southwest Region has participated in a statewide effort to trap and band mourning doves since 2003 (Table 17). In 2003, 65 doves were banded at 2 sites. All doves received a standard leg band on the right leg, and for all odd-numbered bands, a gold band was placed on the opposite leg. In 2004, a total of 100 doves were banded at 3 sites. All doves received a standard leg band; hatch-year doves also received a reward band on the opposite leg. In 2005, 37 doves were banded at 2 sites. During 2006 and 2007, 70 and 182 doves were banded respectively at 3 locations. During 2009, 100 doves were banded in 4 locations. All doves received a standard leg band from 2005-2007. During 2008-09, doves were banded with either a USFWS telephone call-in band or a web address band. During 2011 all doves were banded with web address only bands. Ninety-three doves were banded in the Southwest Region in 2011.

Rabbits and Hares

Population Surveys

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

Harvest Characteristics

Estimates from the telephone harvest survey indicate 877 hunters harvested 1,734 cottontail rabbits in 2011 compared to 2,347 cottontails harvested by 770 hunters in 2010 (Table 18). No snowshoe hares were harvested by an estimated 40 hunters during 2011.

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 the American Crow population 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, 2000-present.

Year	Miles counted	Birds per mile	Percent unsuccessful females	Juv:100 adult females	*n*	Average brood size
2000	540	0.5	22	575	246	7.4
2001	620	0.6	29	423	342	5.9
2002	600	0.3	59	436	180	4.4
2003	540	0.4	79	546	153	5.7
2004	500	0.4	45	514	113	5.4
2005	460	1.2	40	540	232	5.4
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
10-year average	504	0.6	35	514	203	5.0

Table 2. Estimated pheasant harvest, Southwest Region, 2000-present.

	Check station				Telephone survey[a]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds harvested	Birds per hunter day
2000	357	135	0.4	7.1			
2001	168	91	0.5	6.2	11,685	38,994	0.6
2002[b]	59	18	0.4	7.6	10,425	27,010	0.6
2003[c]	55	21	0.4	7.4	10,196	31,962	0.6
2004	95	38	0.4	6.5	9,029	24,623	0.6
2005[b]	14	10	0.7	3.8	10,347	39,135	0.7
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 [b]	60	29	0.5	5.5	10,832	48,775	1.0
2009	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
10-year average	129	62	0.5	5.8	9,863	31,654	0.7

[a] Telephone survey data at the regional level were not collected in 2000.
[b] Freezeout Hill check station only.
[c] Star check station only.

Table 3. Quail population characteristics and estimated harvest, Southwest Region, 2000-present.

	Brood routes		Telephone survey		
Year	Miles counted	Birds[a] per mile	Hunters	Birds harvested	Birds per hunter day
2000	540	2.0			
2001	620	2.8	7,718	84,977	2.2
2002	600	4.3	7,613	61,026	2.1
2003	540	2.5	8,467	105,749	2.4
2004	500	2.7	7,872	91,441	2.3
2005	460	5.4	8,082	145,761	2.6
2006	520	3.4	8,005	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
10-year average	504	3.2	7,795	82,569	2.0

[a] Almost entirely California quail.

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

Year	Hunters	Birds harvested	Birds per hunter	Birds per hunter day
2001	7,008	34,251	3.3	1.0
2002	8,945	34,672	5.5	0.8
2003	7,136	40,548	10.4	1.1
2004	9,415	36,312	3.4	0.7
2005	5,668	17,578	3.1	0.6
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	.04
2011	5,454	19,361	2.6	0.5
3-year avg.	7,047	18,210	2.4	0.4

Table 5. Forest grouse production in Southwest Region based on wing collection, 2001-present.

	Blue Grouse			Ruffed Grouse	
Year	*n*	Juv:100 adult females	Juv:100 adults	*n*	Juv:100 adults
2001	165	362	177	157	166
2002	347	250	144	171	148
2003	356	297	168	130	128
2004	206	149	66	78	116
2005	157	242	141	81	119
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
3-year avg.	285	234	168	90	140

Table 6. Sage-grouse lek route data from selected routes, Southwest Region, 2003-present.

Route	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Big Jack's Creek							28	39	114	116
Brown's Creek	24		28	32	31	9	14	12	30	42
Craig	104	101	108	99	35	18	39	49	20	12
Cow Creek	62				24	31	61	69	52	13
Monday Gulch	58	58	57	60	25	23	14	15	14	16
Midvale	69	62	74	62	35	23	23	35	21	22
Oreanna	79	73	93	83	54	55	40	63	74	68
Wickahoney West lek[a]	48	63	99	90	78	41	31	31	41	36
Rocky Knoll lek[a]	72	55	89	75	37	32	48	81	91	
Rocky Knoll Route[b]					93	73	91	153	198	146
Roland Road	90	117	122	77	77	39	44	43	65	59
Sheep Creek	46	54	87	120	130	95	95	100	83	81
Soulen Center	58	49	72	94	38	21	22	30	23	16

[a] Individual lek counts. Not associated with a route.

[b] In 2007 Rocky Knoll Lek became part of a lek route. The individual high count on the lek was added to the table due to the long-term data set for this lek.

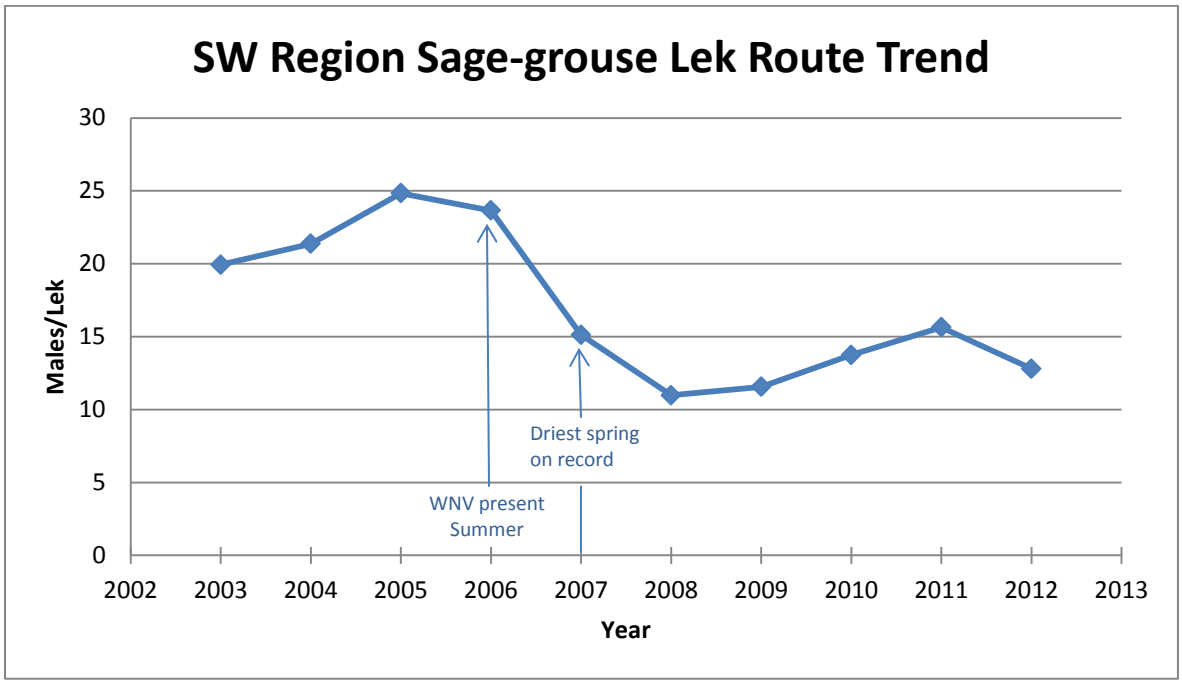


Figure 1. Average number of male sage-grouse per lek along 13 routes in Southwest Region.

Table 7. Estimated greater sage-grouse harvest, Southwest Region, 2000-present.

	Check station[a]				Telephone survey[b]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds harvested	Birds per hunter day
2000	365	312	0.9	6.5	997	1,848	0.6
2001	150	179	1.2	5.5	858	1,240	0.7
2002	285	293	1.0	5.0	1,135	1,499	0.7
2003	246	254	1.0	5.0			
2004	203	192	0.9	5.1	1,388	1,748	0.6
2005	232	308	1.3	5.0	1,016	1,373	0.8
2006[c]							
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	100	0.8	8.4	502	811	.08
2010	62	35	0.6	10.1	222	171	0.4
2011	45	26	0.6	8.4	397	232	0.3
10-year average	193	188	1.0	6.6	841	944	0.6

[a] Walters Ferry and Bruneau check stations open on weekends in 1990. Bruneau check station open on opening day only from 1993-1999. Only Bruneau and Mud Flat check stations were operated from 2001-2008.

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

[c] 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, 2000-present.

Year	Juv:100 females	Juv:100 adults	Percent unsuccessful females
2000	127	85	67
2001	145	110	38
2002	295	201	86
2003	199	130	81
2004	246	168	
2005	221	164	70
2006[a]			
2007	43	36	86
2008	106	73	70
2009	204	126	41
2010	141	127	63
2011	93	60	63
10-year avg.	169	120	66

[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, 2000-present.

Year	Lower	Middle	Upper	Fairchild	Totals
2000	24	0	19	16	59
2001	24	2	29	19	24
2002	19	10	17	17	63
2003	21	22	27	23	93
2004	34	18	31	15	98
2005	36	18	25	19	98
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

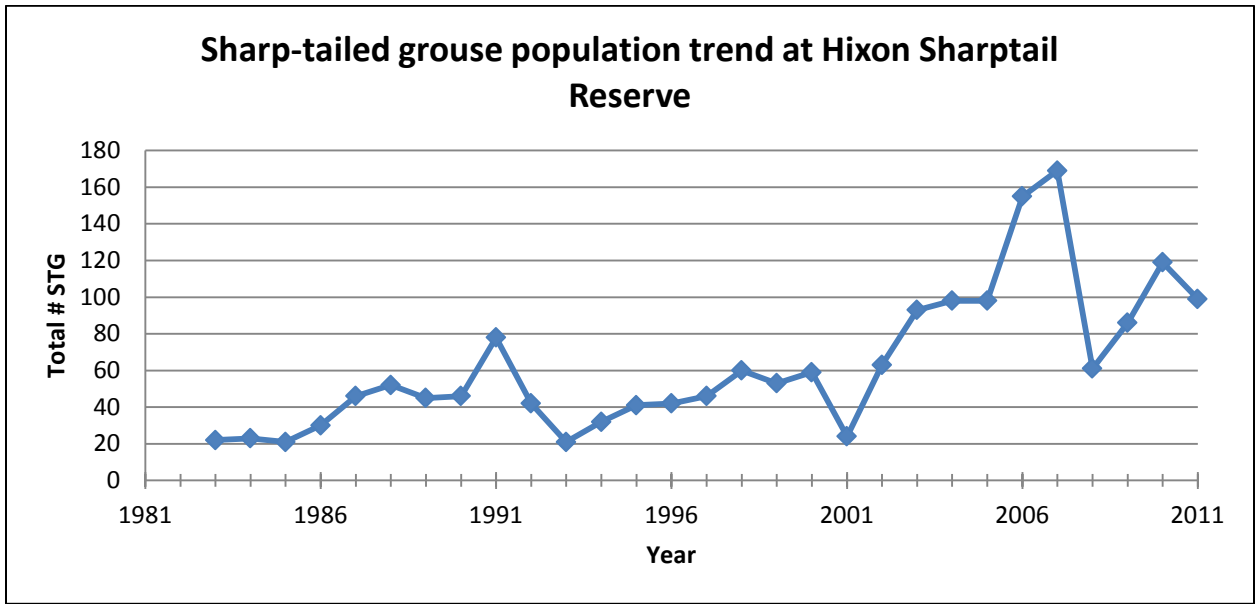


Figure 1. Total number of male sharp-tailed grouse on 4 leks at Hixon Sharptail Preserve, Washington County, Idaho, 1982-2011.

Table 10. Chukar aerial survey results along Brownlee Reservoir, Southwest Region, 2000-2010.

Year[a]	Chukars observed	Chukar groups	Groups per square mile[b]	Chukars per square mile	Chukars per group
2000	1,488	104	8.7	124.0	14.3
2001	1,724	127	10.6	143.7	13.6
2002	1,488	92	7.7	124.0	16.1
2003	1,656	139	11.6	138.0	11.9
2004	1,855	102	8.5	154.6	18.2
2005	2,085	116	9.7	173.8	18.0
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] Years with no data were not surveyed.
[b] The survey area is 12 square miles.
*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, 1984-2009.

Year[a]	Chukars observed	Chukar groups	Groups per square mile[b]	Chukars per square mile	Chukars per group
1984	84	10	1.1	7.6	8.4
1985	132	10	1.2	11.0	13.2
1986	144	15	1.0	9.6	9.6
1987	409	33	3.3	40.9	12.4
1988					
1989					
1990					
1991	115	18	1.1	7.2	6.4
1992					
1993	84	10	1.2	7.1	7.4
1994	190	13	1.5	19.0	14.6
1995	212	18	1.8	21.2	11.8
1996					
1997	314	29	2.9	31.4	10.8
1998	193	26	2.6	19.3	7.4
1999					
2000	241	21	2.1	24.1	11.5
2001					
2002	218	18	1.8	21.8	12.1
2003					
2004	362	31	3.1	36.2	11.7
2005					
2006	269	35	3.5	26.6	10.2
2007					
2008	176	17	1.7	17.6	10.6
2009					

[a] Years with no data were not surveyed.

[b] The survey area is 10 square miles.

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

Table 12. Estimated chukar harvest, Southwest Region, 2000-present.

	Check Station[a]				Telephone Survey[b]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds harvested	Birds per hunter day
2000	374	271	0.7	7.0			
2001	36	69	1.9	1.9	7,988	61,201	1.6
2002	70	114	1.6	2.8	8,907	78,171	1.8
2003	58	181	3.1	1.6	8,742	87,457	2.0
2004	44	97	3.1	1.7	9,335	71,238	1.7
2005					7,663	62,315	1.8
2006	70	161	2.3	2.9	8,003	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
10-year average	51	105	2.2	2.6	7,091	57,294	1.6

[a] Opening weekend harvest data only from Cecil Andrus WMA. Opening weekend harvest data only in 1990.

[b] Telephone survey data at the regional level were not collected in 2000.

Table 13. Gray partridge population characteristics and estimated harvest, Southwest Region, 2000-present.

	Production			Telephone Survey[a]		
Year	Miles counted	Birds per mile	Birds counted	Hunters	Birds harvested	Birds per hunter day
2000	540	0.2	96			
2001	620	0.1	60	3,452	16,451	0.8
2002	600	0.1	79	2,816	10,895	0.8
2003	540	0.05	26	4,072	21,486	1.0
2004	500	0.2	122	2,891	13,826	0.6
2005	460	0.1	49	3,276	12,835	0.8
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
10-year average	520	0.08	48	2,904	14,072	0.7

[a] Telephone survey data at the regional level were not collected in 2000.

Table 14. Estimated turkey harvest, Southwest Region, 2000-present.

Year Hunt	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
2000[a]						
Controlled	1	75	75	32	9.9	318
General			6,401	1,276	15.3	19,555
2001						
Controlled Spring	1	75	71	38	8.4	319
General Spring			5,680	988	18.4	18,140
Controlled Fall	1	750	403	315	3.0	948
2002						
Controlled Spring	1	70	66	32	8.6	275
General Spring			5,737	910	19.8	18,055
Controlled Fall	1	750	623	281	5.6	1,560
2003						
Controlled Spring	1	67	62	37	5.1	189
General Spring			5,797	1,230	15.4	18,961
General Fall			1,499	580	7.8	4,529
2004						
Controlled Spring	1	75	53	27		
General Spring			5,328	860	19.7	16,936
General Fall			1,742	602	8.6	5,214
2005[b]						
Controlled Spring	2	85	74	64	3.4	215
General Spring			6,250	992	18.0	17,877
General Fall			1,388	394	10.1	3,991
2006[c]						
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			unavailable			

Table 14 Continued

Year Hunt	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
2011						
Controlled Spring	2	135	114	101	4.0	409
General Spring			3,571	669	15.6	10,446
General Fall						

[a] Fall hunt. All others are spring hunts.
[b] Ten-permit controlled youth hunt added spring 2005.
[c] GMU 33 and 39 were closed to fall hunting in 2006.

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 and estimated harvest, Southwest Region, 2000-present.

	Dove routes		Telephone survey[a]		
Year	Miles counted	Doves observed/mile	Hunters	Birds harvested	Birds per hunter day
2000	540	3.3			
2001	620	3.2			
2002	600	2.4			
2003	540	2.6			
2004	500	2.6			
2005	460	4.0			
2006	520	3.6			
2007	460	5.2			
2008	520	3.6			
2009	520	4.8			
2010	460	4.5			
2011	460	6.1			

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

Table 17. Mourning doves banded in Southwest Region, 2003-present.

Year	Sex			Year			
	Male	Female	Unknown	Hatch-year	Adult	Unk	Total
2003	20	12	0	33	32	0	65
2004	31	10	10	49	51	0	100
2005	11	10	3	13	24	0	37
2006	18	8	5	33	31	6	70
2007	56	31	3	64	90	28	182
2008	61	41	67	50	118	1	169
2009	39	26	35	29	71	0	100
2010	32	27	1	13	43	4	30
2011	45	30	18	15	76	2	93
Total	313	195	368	299	536	39	876

Table 18. Estimated cottontail rabbit and snowshoe hare harvest, Southwest Region, 2003-present.

	Cottontail rabbit		Snowshoe hare	
Year	Hunters	Cottontails harvested	Hunters	Hares harvested
2003	1,137	4,094	25	17
2004	707	3,582	115	69
2005	874	4,528	58	48
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
3-year average	793	1,789	72	9

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, 2011 to June 30, 2012

MAGIC VALLEY REGION

Climatic Conditions

April-June precipitation in the Magic Valley Region was approximately 40% below the long-term means which may have had negative effects on nesting cover and early brood rearing habitat. The weather was warm and dry during late May and June; providing conditions conducive for successful hatching.

Trapping and Translocation

No trapping or translocation took place in Magic Valley Region for pheasant, California quail, mountain quail, forest grouse, sage-grouse, chukar, or gray partridge during the reporting period. Thirty-three Columbian sharp-tailed grouse were trapped and translocated to sites in Washington to augment existing populations.

Pheasant

Abstract

Pheasant numbers have declined substantially in the Magic Valley during the past 35 years as evidenced by declines in harvest and pheasants observed/mi on August roadside surveys. The 2011 number of pheasants observed/mi (PPM) index was 0.11 and equaled the lowest ever recorded. 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. The 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 2011 PPM index was lower 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 2011, western routes and eastern routes both averaged 0.11 PPM.

Winter sex ratio data was not collected during the 2011-2012 reporting period.

Harvest Characteristics

Both pheasant hunters and pheasant harvest have declined precipitously in the region since the mid-1980s. In 2011, estimated harvest was 15,630 birds (Table 2).

Release of Pen-reared Pheasants

Pheasant stocking to provide "put-and-take" hunting opportunity occurred on Bureau of Reclamation tracts in Minidoka County (400 pheasants) and 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.

Management Studies

No management studies were conducted during the 2011-2012 reporting period.

Management Implications

Pheasant populations in Magic Valley declined dramatically during the early to mid-1980s following a series of severe winters. Pheasant numbers have remained depressed because of a shortage of winter habitat and lack of undisturbed nesting cover. Current farming practices are not compatible with supporting the higher density of pheasants that occurred in Magic Valley during the 1950s and 1960s. The widespread use of sprinkler irrigation has resulted in larger field sizes, less linear habitat (fence rows and ditches), and fewer uncultivated weedy areas, reducing the quality and quantity of winter and nesting habitat. In addition, the number of acres of farmland planted to alfalfa has increased to support the needs of the area's growing dairy industry. The increase in alfalfa acres has had negative effects on pheasants because alfalfa is harvested earlier (mid- to late May instead of early June) and more frequently (4-5 cuttings instead of 3) now than it was 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 the Department's HIP cooperative projects with Pheasants Forever, Farm Bill programs, and the Cooperative Wildlife Management Program. Providing adequate nesting habitat is currently viewed as the weak link in our habitat recovery efforts.

Quail

Population Surveys

Only 7 of 28 August roadside routes survey quail habitat, resulting in poor predictive capabilities from survey data. The number of quail observed on routes in 2011 was similar to the 2001-2010 mean (Table 3).

Harvest Characteristics

Quail populations in the region exhibit dramatic annual fluctuations in response to weather conditions during the hatch. During 2000-2011, the estimated harvest has ranged from 13,345 birds in 2001 to 38,522 birds in 2006. The 2011 harvest decreased by 37% from 2010 and was 36% lower than the 2001-2010 average (Table 3). The number of quail checked/100 hunters at opening weekend check stations in 2011 was similar to the 2001-2010 mean after reaching its highest level ever in 2010 (Table 4).

Management Implications

California quail in Magic Valley Region are associated primarily with Snake River and its tributaries west of U.S. Highway 93. 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 6 of 10 stops.

Harvest Characteristics

Forest grouse (dusky, ruffed, and spruce grouse) hunting has increased in popularity since the 1980s. From 2001-2010, the number of forest grouse hunters has averaged more than 2,440 hunters annually in the region. Estimated harvest of forest grouse 2011 declined by 45% from 2010 and was 59% lower than the 2001-2010 mean of 7,078 grouse (Table 5).

At 2011 check stations, no ruffed grouse were checked. The number of dusky grouse checked decreased substantially in 2011 after reaching highest level recorded in 26 years in 2010 (Table 4).

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 of the spruce grouse reported by hunters were probably dusky grouse and were misidentified by hunters. The harvest data would suggest that at least 13% of the forest grouse harvested are misidentified.

Management Implications

Dusky and ruffed grouse harvest will be monitored at sage-grouse and big game check stations. No population surveys are presently conducted for forest grouse but 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 Magic Valley Region exhibited substantial declines in 2007 and 2008 after increasing from 1995-2006. The number of males counted on leks in 2012 was 46% lower than in 2006. Production, indexed from hunter-harvested grouse, was poor in 4 or past 5 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 2011 declined to 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 2012 to monitor sage-grouse population trends. Ten of the routes can be used to monitor population trends since 1987. Route data suggest that sage-grouse populations in the region declined precipitously from 1987 to 1994 (69%), increased from 1995-1999 and then declined slightly from 2000-2002 before increasing again from 2003-2006 (Figure 1). In 2007 and 2008, the number of males counted on 20 comparable routes declined by 46% from the 2006 level. Counts in 2008-2011 suggest an increasing population. In 2012, lek route counts decreased 13% from 2011.

Most leks do not occur on annual routes and surveys are coordinated with federal agency personnel and volunteers. In 2012, more than 60 individuals participated in lek surveys including Department biologists, conservation officers, Reservists, BLM, USFS, NPS, and IDPR

employees, and citizen volunteers. Survey efforts also included 5 mornings of helicopter surveys in the Shoshone Basin sage-grouse planning area. Male counts were obtained for 463 leks; approximately 49% of the leks identified in the region since 1950. During the past 5 years (2008-2012), 91% of the identified leks in the region have been surveyed and 385 have been classified as occupied (active during the past 5 years).

Wings from hunter-harvested sage-grouse were collected at check stations and with wing barrels to index annual production. From 1962-2012 production has averaged 191 juveniles/100 adult females. The juvenile/adult female ratio have been below the average in 4 of the past 5 years (Table 6).

Harvest Characteristics

Five check stations were operated on opening weekend (1-2 Oct). The temperature was approximately 80 degrees F both days with overcast skies and a breeze on Saturday and clear skies on Sunday. Hot and dry conditions preceded the hunt. Opening weekend participation and harvest were the lowest ever recorded in the region (since 1965); presumably influenced by low bird numbers and 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 2008 and to a level 45% lower than in 2006. The cause of the decline is uncertain but West Nile virus is a possible, but unproven, contributing factor. There has been little recovery in sage-grouse populations since the 2007 and 2008 declines.

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 500,000 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 trap and translocation efforts. The numbers of birds counted on leks have remained relatively stable during the past 6 years. On 30 comparable leks, counts were 379 birds in 2012, 447 birds in 2011, 442 in 2010, 432 in 2009, 389 in 2008, and 459 in 2007.

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

Idaho's Columbian sharp-tailed grouse translocation program began in 1991 with the goal of reestablishing populations of this subspecies in Idaho and other western states where suitable habitat exists. During 1991-2012, 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 the 2011-2012 reporting period, 33 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 by the CRP program 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. Monitoring will continue in the Shoshone Basin and House Creek areas to assess the success of reintroduction efforts. The multi-state reintroduction program will continue during the 2012-2013 reporting period as will monitoring of past reintroduction efforts.

Chukar

Population Surveys

No surveys for chukar populations were conducted in Magic Valley Region during the 2011-2012 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 2007-2011 averaged 7,234 birds; 37% lower than the 2001-2001 average. Estimated harvest in 2011 was declined by 51% from 2010 (Table 8). It should be noted that harvest within Magic Valley Region in Owyhee and Elmore counties is included with the Southwest Region data.

Chukar harvest and population trend is also monitored at opening weekend check stations. Chukar checked per 100 hunters peaked in 2003 and 2004, remained near the 10-year average in 2005 and 2006, and declined substantially in 2007 and 2008. Chukar hunter success at check stations in 2010 and 2011 were well above the long-term average possibly the result of opening weekend bird hunters spending less time pursuing sage-grouse and more time on other species (Table 4).

Management Implications

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

Gray Partridge

Population Surveys

August roadside surveys do not adequately sample uncultivated partridge habitat and thus, do not provide useful data for predicting overall fall population status. The routes do sample partridge populations in cultivated areas and suggest an increased numbers of birds in 2010 (Table 9).

Harvest Characteristics

Estimated harvest from 1985-2011 has ranged from 10,00 birds in 2001 to 2,000 birds in 2011, demonstrating the extreme population fluctuations observed in this species. In 2011, the estimated harvest declined by 85% from 2010 and was well below the 2001-2010 mean (Table 9).

Hunter success trends are monitored at opening weekend check stations that sample hunters, mostly from uncultivated habitat. Similar to the decline in estimated harvest, the number of gray partridge checked/100 hunters in 2011 declined substantially (59%) from 2010 (Table 4).

Management Implications

August roadside surveys and opening weekend check stations will continue to be used to monitor the status of gray partridge populations in the region. From 1997-2004, roadside survey data suggest relatively stable numbers of partridge, but the number of birds checked on opening

weekend in 1999-2003 increased to well above the long-term average. One possible explanation for the disagreement in these 2 indices is that roadside routes sample primarily farmland habitats, while opening weekend check stations sample sagebrush-dominated habitats. Weather-related factors have a substantial effect on short-term population fluctuations, but improving habitat remains the key to sustaining healthy populations in the long term. Magic Valley Region will continue to give priority to habitat enhancement (HIP, Cooperative Wildlife Program, Pheasants Forever) for gray partridge management.

Wild Turkey

Trapping and Translocation

From 1988-2001, 152 Rio Grande turkeys were released at the Big Cottonwood WMA in GMU 54. Since 2004, 106 nuisance turkeys have been trapped and relocated to the Goose Creek and Green Creek drainages in GMU 54 (Table 10).

Harvest Characteristics

From 2003-2012, 3 spring hunts have been authorized in GMU 54, including a youth-only hunt. Total permit levels for spring hunts have increased from 12 permits in 2003 to 78 permits in 2008-2012. In 2012, 11 of the 62 hunters that participated were successful (Table 11). From 2010-2012 a 50-permit fall hunt was authorized in the Goose Creek drainage to help reduce the number of nuisance turkeys.

Management Implications

Opportunities to establish self-sustaining turkey populations in 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, collect data on 4 spring call-count routes in Magic Valley Region.

On August roadside surveys, doves observed have ranged from 1.3 doves/mi in 2000 to 5.1 doves/mi. in 2009. The number of doves observed on August routes has trended upward during the past 25 years. From 2000-2010, 3.7 doves/mi were observed and during 1986-1999, 2.4 doves/mi were observed (Table 12).

Trapping and Banding

Magic Valley Region has participated in a statewide effort to trap and band mourning doves since 2003 (Table 13). In 2010, 164 doves were banded at 2 sites including Big Cottonwood WMA and near Jerome. During 2003-2011, 1,646 total doves were banded in the region. Banding will continue during the 2012-2013 reporting period.

Harvest Characteristics

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

Management Implications

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

Cottontail Rabbits

Population Surveys

Cottontail rabbits are counted on the 28 roadside surveys conducted each August in Magic Valley Region. The number of cottontails observed has varied from 4 (1999-2001 and 2006, 2008) to 16 (2005). Three cottontails were observed on 2010 routes.

Harvest Characteristics

No cottontails have been checked at opening weekend check stations since 2002. In 2011, it was estimated that 397 hunters harvested 2,732 cottontails in the region (Table 14).

Management Implications

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

American Crow

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

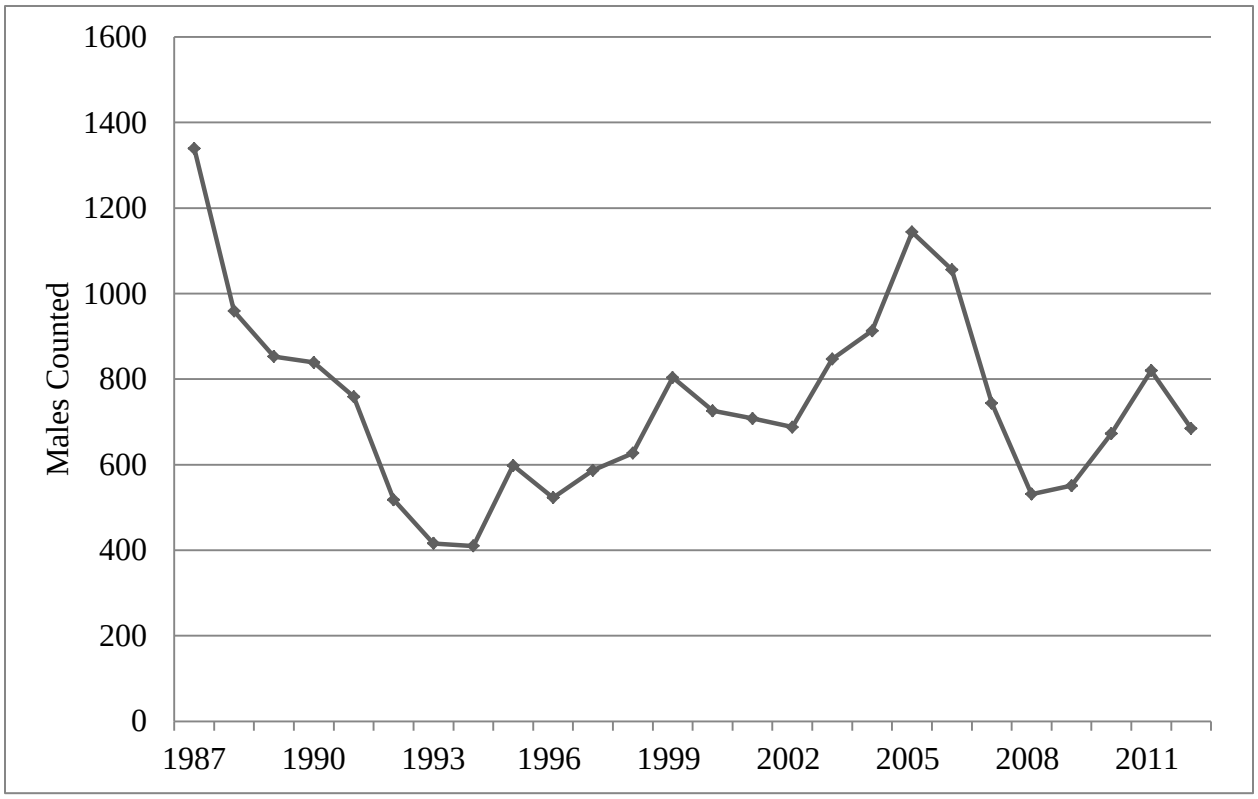


Figure 1. Total male greater sage-grouse counted on 10 comparable lek routes, Magic Valley Region, 1987-present.

Table 1. Pheasant population characteristics and production, Magic Valley Region, 2000-present.

	Winter sex ratio		Routes		Percent	Juv:100	Brood size	
Year	Hens per cock	*n*	(miles) counted	Birds per mile	unsuccessful females	adult females	*n*	Average
2000			28 (575)	0.20	45	380	11	4.8
2001	2.7	214	28 (575)	0.14	20	530	8	6.6
2002			28 (575)	0.12	27	427	8	4.5
2003			28 (575)	0.31	23	636	14	6.1
2004			28 (575)	0.22	9	982	8	8.3
2005			28 (573)	0.42	35	468	21	5.8
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
10-year average				0.21	26	571	8	5.5

[a] Roadside routes were added in 1990 and 2009. Data is provided for the original surveys alone and with the new surveys added.

Table 2. Estimated pheasant harvest, Magic Valley Region, 2001-present.

Year	Hunters	Birds harvested	Birds per hunter	Birds per hunter-day
2001	5,491	19,368	3.5	0.6
2002	4,621	11,677	2.5	0.5
2003	5,579	13,622	2.4	0.6
2004	6,644	15,317	2.3	0.6
2005	5,298	20,595	3.9	0.6
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	3.75	0.57
2010	5,021	11,079	2.21	0.50
2011	5,014	15,630	3.12	0.59
10-year average	5,555	17,675	3.12	0.61

Table 3. California quail population characteristics and estimated harvest, Magic Valley Region, 2000-present.

	Brood routes		Telephone survey[a]		
Year	Routes (miles) counted	Birds per mile	Hunters	Birds harvested	Birds per hunter-day
2000	28 (575)	0.04			
2001	28 (575)	0.02	1,444	13,345	1.8
2002	28 (575)	0.23	1,250	4,001	1.1
2003	28 (575)	0.17	1,070	4,706	1.9
2004	28 (575)	0.18	1,618	12,949	1.6
2005	28 (573)	0.40	1,086	16,647	2.2
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	1.27
2010	28 (569)	0.25	2,218	14,228	1.21
2011	30 (617)	0.21	1,425	8,965	1.21
10-year average		0.23	1,653	13,918	1.71

[a] Telephone survey data at the regional level were not collected in 2000.

Table 4. Trend of upland game species harvested per 100 hunters checked at stations on opening weekend of the sage-grouse, quail, and partridge season, Magic Valley Region, 2000-present.

Year	Sage-grouse	Dusky grouse	Ruffed grouse	Chukar partridge	Gray partridge	Mourning dove	CA quail	Cottontail/ pygmy rabbit[a]	Hunter numbers
2000	50.2	2.2	0.30	8.5	7.9	2.6	1.68	0.00	1,011
2001	56.8	0.2	1.35	10.1	5.3	2.2	2.98	0.45	1,108
2002	49.0	1.9	1.18	8.5	2.8	0.7	0.45	0.36	1,103
2003	56.9	0.3	0.25	13.0	4.3	0.4	0.66	0.00	1,206
2004	54.4	1.2	0.59	11.7	2.4	1.0	1.09	0.00	1,193
2005	78.4	0.4	0.29	9.3	3.2	0.5	0.38	0.00	1,045
2006	60.0	0.3	0.35	7.1	4.7	1.7	1.50	0.00	1,133
2007	38.2	0.5	0.62	2.2	4.5	1.9	4.52	0.00	641
2008	37.3	0.4	0.74	1.5	2.2	3.1	4.81	0.00	541
2009	43.4	1.4	2.35	6.3	9.4	0.9	1.64	0.00	426
2010	41.1	4.5	1.14	20.6	15.7	0.6	9.14	0.00	350
2011	33.7	0.3	0.00	12.5	6.4	0.0	2.88	0.00	312
10-year average	51.6	1.1	0.89	9.03	5.45	1.3	2.72	0.08	875

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

Table 5. Estimated forest grouse harvest, Magic Valley Region, 2001-present.

Year	Hunters	Birds harvested	Birds per hunter	Birds per hunter-day
2001	2,847	10,001	3.5	0.8
2002	3,083	8,470	2.7	0.6
2003	2,951	9,641	3.3	0.7
2004	3,260	10,060	3.1	0.6
2005	2,212	7,151	3.2	0.6
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
10-year average	2,440	7,078	2.9	0.6

Table 6. Greater sage-grouse production based on wing collections, Magic Valley Region, 2000-present.

Year	Juv:100 females	Juv:100 adults	% unsuccessful females
2000	121	76	68
2001	160	96	78
2002	199	138	71
2003	179	123	70
2004	177	122	74
2005	252	139	79
2006	216	129	69
2007	57	25	57
2008	113	80	72
2009	131	94	55
2010	200	138	56
2011	84	47	91
10-year average	168	108	68

Table 7. Estimated Greater sage-grouse harvest, Magic Valley Region, 2000-present.

	Check station				Telephone survey[a]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds harvested	Birds per hunter-day
2000	1,009	556	0.55	7.7	2,513	3,280	0.6
2001	873	479	0.55	8.0	2,440	3,138	0.6
2002	1,029	540	0.52	8.4	2,677	3,066	0.5
2003	1,127	686	0.61	6.7			
2004	1,164	623	0.54	7.2	3,012	3,173	0.6
2005	989	833	0.84	5.0	2,284	3,185	0.8
2006	1,003	680	0.68	5.8	4,236	6,407	0.7
2007	598	229	0.38	9.7	1,699	1,286	0.4
2008	491	194	0.40	9.0	1,169	773	0.4
2009	382	185	0.48	7.2	1,106	1,024	0.5
2010	294	144	0.50	5.7	1,068	1,086	0.57
2011	256	105	0.41	8.2	853	644	0.43
10-year average	795	459	0.55	7.3	2,188	2,571	0.6

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

Table 8. Estimated chukar harvest, Magic Valley Region, 2001-present.

Year	Hunters	Birds harvested	Birds per hunter	Birds per hunter-day
2001	2,207	7,250	3.3	0.8
2002	1,753	6,966	4.0	1.1
2003	2,171	11,110	5.1	1.2
2004	2,725	11,450	4.2	1.1
2005	2,237	21,017	9.4	1.6
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	0.55
10-year average	2,171	11,538	5.3	1.3

Table 9. Gray partridge population characteristics and estimated harvest, Magic Valley Region, 2000-present.

	Production					Telephone survey[a]		
Year	Routes (miles) counted	Birds per mile	Birds	Brood size	*n*	Hunters	Birds harvested	Birds per hunter day
2000	28 (575)	0.15	86	7.1	8			
2001	28 (575)	0.10	54	7.7	8	2,751	10,133	0.6
2002	28 (575)	0.09	49	9.4	5	1,162	2,753	0.6
2003	28 (575)	0.14	77	10.7	7	2,789	7,277	0.8
2004	28 (575)	0.13	73	10.7	7	2,612	9,272	0.6
2005	28 (573)	0.35	200	13.3	12	2,242	11,576	0.8
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	1.79
10-year average		0.17	94	9.4	7	2,107	9,621	0.77

[a] Telephone survey data for 2000 is not available.

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	S
2009	R	Green Creek-54	17	S

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

Table 11. Estimated turkey harvest, Magic Valley Region, 1999-present.

Year Hunt[a]	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
1999-2001	Closed					
2002						
Controlled	1	3	3	3	1.7	5
Controlled (youth)	1	3	3	3	2.7	8
2003						
Controlled	2	8	8	8	3.4	27
Controlled (youth)	1	4	2	2	1.0	2
2004						
Controlled	2	16	14	13		
Controlled (youth)	1	8	6	6		
2005						
Controlled	2	24	23	11	8.5	93
Controlled (youth)	1	12	8	5	8.8	42
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 (1 youth)	3	78	63	26	11.1	288
2010						
Controlled (spring)	2	48	39	14	14.8	207
Controlled (youth)	1	30	25	13	6.3	82
Controlled (fall)	1	50				
2011						
Controlled (spring)	2	48				
Controlled (youth)	1	30				
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				

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

Table 12. Mourning dove August roadside survey results and estimated harvest, Magic Valley Region, 2000-present.

	August roadside routes		Telephone survey[a]		
Year	Routes (miles) counted	Doves observed/mile	Hunters	Birds harvested	Birds per hunter day
2000	28 (575)	1.3			
2001	28 (575)	2.2			
2002	28 (575)	2.5			
2003	28 (575)	3.4			
2004	28 (575)	3.3			
2005	28 (573)	4.1			
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			
10-year average		3.7			

[a] Telephone survey data at the regional level were not collected after 1996; harvest is reported directly to the USFWS by hunters.

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

	Adult					
Year	Male	Female	Unknown	Hatch-year	Unknown	Total
2003	46	45	7	96	6	200
2004	65	14	2	104	0	185
2005	85	27	0	86	0	198
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
Total	573	185	16	850	21	1,646

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

	Cottontail rabbit		Snowshoe hare	
Year	Hunters	Cottontails harvested	Hunters	Hares harvested
2004	1,271	9,675	139	54
2005	1,089	7,550	126	1,948
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	800	6,018	35	102
2011	397	2,742	105	98
8-year average	781	5,122	68	280

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, 2011 to June 30, 2012

SOUTHEAST REGION

Climatic Conditions

Environmental conditions during the critical months of nesting were challenging during the spring 2011 with deeper snow and persisting colder temperatures than normal. However, environmental conditions during the 2011 – 2012 winter were extremely mild with snow-pack measurements averaging 52 % of the 30-year mean for most of Southeast Region. Summer conditions were dry; with some slight relief in late summer/early fall resulting from short duration thundershowers and cooler temperatures.

Pheasant

Abstract

Subjective evaluation of pheasant numbers indicates relatively stable populations in parts of Southeast Region and gradual increases in others. 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

In 2006, data was collected from the American Falls check station only. Because of this, the data is not comparable to previous years in the table. When comparing just the American Falls check station data, the hunter numbers increased by 37% from 95 to 136. Harvest decreased slightly from 110 birds in 2005 to 102 birds in 2006 (8%). Pheasant check stations are no longer conducted during pheasant seasons.

A telephone survey estimated that 4,191 hunters harvested 13,234 pheasants in 2011 (Table 2). According to the survey, harvest decreased (20.9 %) from 16,729 birds harvested in 2010.

Release of Pen-reared Pheasants

There were 2,665 fully-grown game-farm cocks released on the Sterling WMA during the fall 2011. Game-farm birds have been released on the WMA historically to provide hunters with additional opportunity. Bag limit for pheasants on the WMA remained 2 birds. Adults hunting on WMAs where game-farm pheasants were released were required to obtain a WMA pheasant permit.

In addition to pen raised birds released on Sterling WMA, Department staff continued an effort from previous years working with sportsmen's groups, volunteers, and landowners to maintain and evaluate the effectiveness of pheasant Surrogators® on the Sterling WMA and private property. 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®. The return from hunters of marked birds from the Surragators® effort was low (< 9 %) and does not appear to be a cost effective option for the Department compared to releasing game-farmed pheasants. Surragator® use by the Department, therefore, will be discontinued in 2012.

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 of 10 – 20 years ago. Until the quantity and quality of available habitat increases, pheasant numbers will likely remain below historical levels. The U.S. Department of Agriculture's CRP program enrolled over 400,000 acres in the Southeast Region during 1985 – 1995 (25% have potential as pheasant habitat), but its effect on pheasant production is unclear at this time. The CRP program was extended for another 10 years beginning in 1997. During the initial 1997 enrollment period, 288,978 acres in 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 Department's HIP program, initiated in 1987, is also contributing toward increasing available cover and forage locally by capitalizing on private land development.

Forest Grouse

Population Surveys

Data on age characteristics for forest grouse populations are collected in the Southeast Region from voluntary wing drop barrels placed during annual hunting seasons. Sixteen wing barrels were placed throughout the region during the 2011 – 2012 hunting season. 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 20 dusky (blue) grouse wings were collected in 2011, a 25.0 % increase from 2011 (Table 3). The ratio of juveniles:100 adults for dusky grouse decreased 53.4 % from 264 in 2010 to 123 in 2011.

A total of 87 ruffed grouse wings were collected in 2011, a 67.5 % decrease from 2010 and 69.1 % lower than the 10-year average (Table 3). However, the ratio of juveniles:100 adults increased from 186 in 2010 to 222 in 2011, which is above the 10 year average of 207.

Harvest Characteristics

In recent years, harvest data on forest grouse has been collected from two sources, the telephone survey and voluntary wing drop barrels. Telephone survey data provides information on numbers of hunters, birds harvested, and hunter success. Wing barrels provide more immediate feedback to managers plus information on sex and age of birds harvested.

Telephone survey data estimated that 3,752 hunters harvested 11,151 forest grouse in 2011 (Table 4). According to the 2011 survey, harvest in the Southeast Region increased (35.9 %) from 7,144 birds harvested in 2010.

Management Implications

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

Sage-grouse

Abstract

Estimates of sage-grouse production in 2011 indicated a decrease throughout southeast Idaho compared to 2010 levels, which is likely the result of harsh environmental conditions during the 2010/2011 winter. Similarly, male sage-grouse counted on leks was lower in 2012 compared to spring 2011 counts. Sage-grouse harvest in 2011 was also lower than recorded in 2010.

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. Wings collected in 2009, 2010, and 2011 were 72, 141, and 30, respectively (Table 8).

The Curlew Grasslands were opened to hunting in 2008. The entire eastern portion of the Southeast Region or East Idaho Uplands was closed to sage grouse harvest in 2008 due to

inadequate population data, this includes portions of Franklin, and Bannock counties and all of Caribou and Bear Lake counties (Table 8).

A total of 56 sage-grouse wings were collected in Southeast Region in 2010 (Table 8). The overall ratio of juveniles:100 adults was 48. It is difficult to relate this level of production to recent years since, from 1996 – 2001, nearly all wings were collected in the Curlew Valley and from 2002 – 2007, nearly all wings were from the Big Desert.

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 7-day, one-bird daily limit, with 2 in possession that begins 15 September.

Telephone survey estimates indicate 351 hunters harvested 211 sage-grouse in 2011, an average of 0.3 birds harvested per day (Table 9). In 2010, the estimated number of hunters (n = 517) and number of birds harvested (n = 747) was higher than in 2011.

Trapping and Translocation

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

In 2010, a cooperative research effort was initiated within The Bear Lake Plateau and Valley (BLPV) area. This research will provide information on population vital rates (nest success, brood success, and adult survival) and seasonal and habitat use patterns that will better inform wildlife managers in Idaho, Utah, and Wyoming. In 2011, 46 males and 24 females were captured and radio-collared. Twenty-eight males and 13 females were captured and radio-collared during the spring 2012. This research effort is on-going.

Management Implications

Production of sage-grouse appeared to decrease in 2010 compared to 2009; however, sample sizes were small. Hunter harvest, success, and/or lek count data suggest populations are at low levels. Big Desert harvest has been variable since reopening in 2002. A continuing decline in lek counts in the Curlew Valley led to a recommendation to close the area to hunting in 2002, but in 2008 a restrictive hunting season was re-established following increasing lek count trends. Persistent drought during the late 1980s and early 1990s, and long-term declines in habitat quantity/quality may partially explain the downward trend of populations over the years.

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

Sharp-tailed Grouse

Abstract

Age-ratio data of wings indicated a decrease in sharp-tailed grouse production during 2011 compared to 2009 and 2010. The ratio of juveniles:100 adults was below the recent 10-year average. Two of the 5 established lek routes in the region were checked in 2011.

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 harvest wing returns to add to the sample. Data analysis of sharp-tailed grouse wings (n = 384) indicated a decrease in the ratio of juveniles:100 adults (59:100) from 2010 (81:100) levels (Table 10). The 2010 ratio was lower than the previous 10-year average of 91. Two of 5 established lek routes in the region were surveyed during 2011(Table 11). The Pocatello Valley route increased from 65 to 77 males observed from 2010 to 2011, respectively. The Downey route slightly decreased from 107 to 106 males observed from 2010 to 2011, respectively.

Harvest Characteristics

For the Greater Curlew area, telephone survey estimates indicate 545 hunters harvested 982 sharp-tailed grouse in 2011, an average of 0.7 birds harvested per day (Table 12). In 2010, 645 hunters harvested 2,154 birds, and birds per hunter day was 1.3.

Outside the Greater Curlew area, telephone survey estimates indicate 510 hunters harvested 708 sharp-tailed grouse in 2011, an average of 0.6 birds harvested per day (Table 12). In 2010, 671 hunters harvested 2,165 birds, and birds per hunter day was 1.1.

For the region, telephone survey estimates indicate 1,055 hunters harvested 1,690 sharp-tailed grouse in 2011, an average of 0.7 birds harvested per day (Table 13). In 2010, 1,316 hunters harvested 4,319 birds, and birds per hunter day was 1.2.

Management Implications

Currently, the single most important factor affecting sharp-tailed grouse populations in Southeast Region is believed to be the CRP program. During 1985 – 1997, over 400,000 acres of cropland

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

Trapping and Translocation

See Magic Valley Region section.

Chukar

Population Surveys

Few, if any, chukar wings are collected in voluntary hunter wing barrels. Chukars are occasionally sighted incidental to deer and elk surveys during winter. Little suitable habitat and restricted populations exist within Southeast Region. Areas known to support limited chukar populations at present are the northeast corner of GMU 70 near Pocatello, the Blackrock area in GMU 71, 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 survey estimates indicate 427 hunters harvested 1,432 chukars in 2011, an average of 0.38 birds harvested per day (Table 14). According to the survey, the number of hunters and birds harvested decreased significantly by 46.7 % and 39.3 %, respectively, from levels recorded in 2010.

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 voluntary hunter wing barrels and annual regional 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

Estimates vary widely from year to year, due primarily to small sample sizes from the region. Annual regional telephone harvest surveys indicated that in 2011 approximately 1,172 hunters harvested 4,370 gray partridge which is substantially lower than the 1,738 hunters harvesting 7,818 birds in 2010. Conversely, birds per hunter day remained the same at 0.5 in 2010 and in 2011.

Management Implications

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

Wild Turkey

Abstract

Eight controlled hunts with a total of 470 permits (337 hunters) resulted in an estimated 2011/2012 harvest of 143 turkeys, down from the 178 birds harvested the previous year. During the spring 2012, hunters harvested an estimated 246 turkeys with an approximate 40 % success rate. Hunters harvested an estimated 287 turkeys during the general spring and fall turkey seasons in 2011/2012. No ground surveys were conducted.

Population Surveys

Winter distribution surveys were conducted along the Snake River during the winters of 1987 – 1988, 1988 – 1989, and 1992 – 1993. These surveys indicated that good-quality turkey habitat was limited and that populations had not continued to grow at rates documented earlier following the initial introduction. 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 expanded range of turkeys in Franklin and Bannock counties, due in part to unauthorized releases of turkeys of unknown origin. Turkeys have been sighted in parts of GMUs 70, 73, 74, 75, and 78, in addition to the release areas in GMU 77. In October of 2009 turkeys were observed in the NE corner of GMU 76 and the North Central 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, 3 consecutive spring hunts with 5 permits each were initiated in Franklin County in 1995. In 1999, permits were increased to 20 and the hunt area was expanded to include all of 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, 3 controlled spring hunts with 5 permits each were added in GMU 71. In 2007, there were 6 controlled hunts with a total of 195 permits available in Southeast Region. In 2008 the controlled hunts were increased to 8 with 395 available permits. Permit levels were increased in some hunts, and 2 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 8 controlled hunts.

The 2010 spring harvest, as estimated by the telephone harvest survey, showed a total of 206 birds harvested in the region for both general and controlled spring hunts (Table 15). The fall harvest was estimated at 271 birds harvested by 698 hunters for both general and controlled hunts.

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 GMU 68A along the Snake River near Firth (Table 16).

Management Implications

Various translocations have occurred within the Southeast Region to establish a harvestable population of wild turkeys. These efforts were in large part successful and turkey numbers remain stable to increasing with their range and distribution increasing 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 the winter of 2007 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 in an effort to reduce population size and the associated landowner complaints. Typically complaints are not associated with crop damage, they usually deal with too many turkeys and the problems associated with their presence in, on, and around people's homes.

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). 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). No doves were banded in Southeast Region in 2007. During 2003 – 2006, 475 total doves were banded in the region. Banding in the Southeast Region has not occurred since 2007.

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 regional telephone surveys.

Harvest Characteristics

Sample size tends to be small and estimates of participation and harvest vary widely. In 2011, an estimated 858 rabbit hunters harvested 2,290 rabbits. Of these, 14 % were cottontail rabbits and the remainder (86 %) were snowshoe hare. Cottontail rabbit harvest decreased from 5,811 animals in 2010 to 332 animals in 2011 (Table 19), and hunter participation decreased from 1,225 to 501rabbit hunters.

Management Implications

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

American Crow

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:100 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 (200)	0.04	50	650	7	3.7
1991			10 (200)	0.09	83	180	2	5.5
1992			10 (200)	0.28	55	400	5	8.8
1993	1.5	10	10 (200)	0.01	0	500	1	5.0
1994	1.5	10	10 (200)	0.01	0	0	0	0.0
1995			8 (160)	0.06	0	500	2	5.0
1996			10 (200)	0.11	0	566	3	5.7
1997								
1998								
1999					50	250	2	5.0

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

Table 2. Estimated pheasant harvest, Southeast Region, 2000-present.

	Check station[a]				Telephone survey[b]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds	Birds per hunter day
2000	250	137	0.6	7.1			
2001	290	147	0.5	5.9	4,201	8,342	0.5
2002	233	116	0.5	6.7	2,536	5,183	0.3
2003	236	131	0.6	6.7	4,263	13,404	0.7
2004	239	113	0.5	7.9	4,052	12,222	0.6
2005	199	193	1.0	3.4	3,965	14,887	0.7
2006[c]	136	102	0.8	3.2	3,497	17,812	0.6
2007[d]					4,882	26,048	0.9
2008[d]					4,473	22,889	0.7
2009[d]					3,975	12,727	0.6
2010[d]					4,894	16,729	0.6
2011[d]					4,191	13,234	0.7
10-year average					4,073	15,514	0.6

[a] Check stations were operated on opening weekend only at American Falls and Tilden Bridge.
[b] Telephone survey data at the regional level were not collected in 2000.
[c] Only the American Falls check station was operated.
[d] No check stations were operated during 2007-2010.

Table 3. Forest grouse production based on wing collection, Southeast Region, 2000-present.

	Blue grouse			Ruffed grouse	
Year	*n*	Juv:100 adult females	Juv:100 adults	*n*	Juv:100 adults
2000	151		184	537	220
2001	229		97	760	188
2002	67		200	265	225
2003	136		115	863	113
2004	78		66	277	177
2005	30		100	112	229
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
10-year avg.	53		152	282	207

Table 4. Estimated forest grouse harvest, Southeast Region, 2002-present.

Year	Hunters	Birds harvested	Birds per hunter	Birds per hunter day
2002	2,902	8,810	3.0	0.7
2003	5,201	29,479	5.7	1.2
2004	4,127	15,380	3.7	0.6
2005	2,758	14,118	3.3	0.6
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
3-year avg.	3,232	8,909	2.8	0.4

Table 5. Maximum number of male greater sage-grouse counted on lek routes in Bingham, Power, and Oneida counties, Southeast Region, 2000-present.

Year	Herriott Lake	Jugalard Lake	Rock Lake	Mosby well #2	Curlew route[a]	Rockland route[b]
2000	45	0	8	0	22	99
2001	46	0	6	0	13	54
2002	25	0	5	0	6	63
2003	54	0	47	0	13	94
2004	40	0	39	0	16	147
2005	30	0	49	0	14	88
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	10	75
2011	51	0	76	0	63	95
2012	46	0	63	0	65	71

[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, 2000-present.

Year	Route #1[a]	Route #2[b]	Route #3[c]	Route #4[d]	Route #5[e]	Fingers Butte[f]
2000	149		38		58	158
2001	126		53		62	193
2002	148		67		68	142
2003	141		98		146	229
2004	114		84		124	225
2005	151		107		146	193
2006	110		153		188	309
2007	141		126		180	296
2008	82		119		97	226
2009	109		83		101	183
2010	159	43	118	7	136	370
2011	208	63	171	6	151	314
2012	177	85	92		111	311

[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, 2000-present.

Year	Bloomington Bottoms	Bloomington Mine	Sheep Creek	Trail Creek	Slug Creek #1	Slug Creek #2
2000	15	27	45	10	0	0
2001	10	23	63	15	0	0
2002	8	15	38	15	0	0
2003	14	0	40			
2004			69			
2005	31		77			
2006	21	0	56			
2007	27	0	34			
2008	21	0	31			
2009	27	0	38			
2010	50	37	42	0	0	0
2011	25		57	1	0	0
2012	16	12	52	0	0	0

Table 8. Greater sage-grouse production based on wing collections, Southeast Region, 2000-present.

Year	*n*	Juv:100 females[a]	Juv:100 adults[b]	*n*	Percent unsuccessful females[a]
Power/Bingham (Big Desert) GMU[c]					
2002	96	431		16	62
2003	141	104	64	81	40
2004	34	317	127	18	83
2005	143	372	186	72	60
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
Holbrook (Curlew) GMU[d]					
2000	25	67	47		58
2001	9	100	80	4	75
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
Bear Lake GMU					
2000	9	133	80		100
2001	3				
2002	8		60	3	100
2003	0				
2004	26	300	136	10	80
2005	17	550	183	6	100
2006	7		600	4	
2007	2	NA	NA	NA	NA
2008[e]	closed	closed	closed	closed	closed
2009	closed	closed	closed	closed	closed
2010	closed	closed	closed	closed	closed
2011	closed	closed	closed	closed	closed
Southeast Region					
2000	34	80	55		67
2001	12	175	140	4	75
2002	104	379	225	19	68
2003	144	98	62	56	39
2004	62	292	130	30	75
2005	160	385	186	78	63
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
10-year	105	235	130	38	63

Table 8 Continued

Year	*n*	Juv:100 females[a]	Juv:100 adults[b]	*n*	Percent unsuccessful females[a]
average					

[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.
[e] Harvest closed in 2008.
[f] Inadequate sample size.

Table 9. Estimated greater sage-grouse harvest, Southeast Region, 2000-present.

		Check station				Telephone survey[a]		
Year	Daily bag[b]	Hunters	Birds	Birds per hunter	Hours per bird	Hunters	Birds	Birds per hunter day
2000	1					743	669	0.4
2001	1					551	489	0.3
2002	1	37	11	0.3	13.1	430	422	0.4
2003	1	31	23	0.7	3.6			
2004	1	35	10	0.3	7.0	342[c]	382	0.4
2005	1	59	42	0.7	3.3	429[c]	403	0.5
2006	1	83	61	0.7	3.9	305[c]	397	1.3
2007	1	84	13	0.2	10.6	342[c]	264	0.3
2008	1	53	24	0.5	9.6	167[d]	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
3-year average		51	16	0.4	9.0	415	433	0.5

[a] Telephone survey data at the regional level were not collected from 1996-1999. Telephone survey data for 2003 is not available.
[b] From 1986-1989, the bag limit for areas off the Big Desert were smaller (2) than for those on the Desert. From 1996-2001, the Big Desert was closed to harvest. The Curlew Grassland was closed to harvest in 2002.
[c] Used Zone 5 harvest data only, Southeast Region also includes portions of Zone 8, which is reported in statewide section and Upper Snake section.
[d] Includes only Zone 5A (curlew area) which reopened to hunting in 2008, while Zone 5 closed in 2008 due to lack of population data.

Table 10. Sharp-tailed grouse production based on wing collections, Southeast Region, 2000-present.

Year	Juveniles:100 adults[a]	*n*
2000	59	399
2001	84	182
2002	118	155
2003	70	398
2004	39	194
2005	74	169
2006	166	263
2007	65	221
2008	102	297
2009	114	370
2010	81	609
2011	59	384
10-year average	89	306

[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, 2000-present.

Year	Arbon route[a]	Curlew route[b]	Pocatello Valley route[c]	Rockland route[d]	Downey route[e]
2000			76		60
2001			64		42
2002			49		42
2003			96		34
2004			59		54
2005			86		48
2006			62		74
2007			102		110
2008			53		99
2009			42		109
2010			65		107
2011			80		106
2012			56		88

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

Table 12. Estimated sharp-tailed grouse harvest Greater Curlew area, Southeast Region, 2001-present.

Year	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
	Greater Curlew area[a]				
2001	656	1,337	1,706	2.0	0.8
2002	473	986	1,288	2.1	0.8
2003	836	2,122	2,203	2.5	1.0
2004	646	1,587	1,572	2.5	1.0
2005	779	1,593	1,607	2.0	1.0
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
3-year average	611	1,546	1,618	2.5	0.9
	Outside the Greater Curlew area[b]				
2001	763	1,377	2,130	1.8	0.6
2002	702	1,215	1,771	1.7	0.7
2003	899	2,644	2,760	2.9	1.0
2004	742	1,825	2,178	2.5	0.8
2005	991	1,881	2,260	1.9	0.8
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
3-year average	639	1,665	1,961	2.5	0.9

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

Table 13. Estimated sharp-tailed grouse harvest, Southeast Region, 2000-present.

	Hunter report cards[a]				Telephone survey[b,c]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds	Birds per hunter day
2000					1,799	3,716	0.8
2001					1,419	2,714	0.7
2002					1,175	2,201	0.7
2003							
2004					1,388	3,412	0.9
2005					1,770	3,474	0.9
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
3-year average					1,250	3,211	0.9

[a] Hunter report cards were only collected from 1987-1993.
[b] Telephone survey data at the regional level were not collected from 1996-1999. Telephone survey data for 2003 is not available.
[c] Sharptail grouse reporting Zones 1 & 2.

Table 14. Estimated gray and chukar harvest, Southeast Region, 2001-present.

	Gray partridge			Chukar		
Year	Hunters	Birds	Birds per hunter day	Hunters	Birds	Birds per hunter day
2001	1,376	3,798	0.6	247	952	0.7
2002	984	2,293	0.3	230	193	0.3
2003	1,269	8,607	1.5	792	3,335	1.5
2004	1,223	3,558	0.8	498	224	0.2
2005	1,006	6,957	1.0	326	614	0.6
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
3-year avg.	1,418	5,541	0.5	577	1,562	0.5

Table 15. Estimated turkey harvest, Southeast Region, 2000-present.

Year Hunt	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
2000						
Controlled	6	135	113	64	5.5	349
General			382	159	7.3	1,168
2001						
Controlled	6	135	133	67	6.6	445
General			493	190	6.7	1,276
2002						
Controlled[a]	6	195	168	69	8.8	605
General			623	165	14.5	2,389
2003						
Controlled	6	195	163	67	8.0	539
General			852	535	4.5	2,383
2004						
Controlled	9	210	183	74	9.4	692
General			988	304	12.4	3,783
2005						
Controlled	6	120	103	32	16.0	510
General			2,071	358	18.8	6,732
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	1,100
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

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

Table 16. Turkey translocation history, Southeast Region, 1982-2008. No translocations have occurred in the Southeast Region since 2008.

Year	Sub-species[a]	Release site	Birds released	New or supplemental release
1982	R	Snake River	36	N
1984	R	Snake River	28	N
1990	M	Snake River	14	S
1993	M	Bear River	20	N
1994	M	Snake River	64	S
	M	Bear River	32	S
1999	U	Deep Creek, Bear River	15	S
2000	U	Oneida Narrows	50	S
2001	U	GMU 71	136	N
2003	H	Snake River, GMU 69	42	S
2008	H	Snake River, GMU 68A	82	S

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

Table 17. Mourning dove call-count survey results and estimated harvest, Southeast Region, 1984-2008.

	Coo-count routes		Telephone survey[a]		
Year	Routes counted	Doves heard/mile	Hunters	Birds	Birds/ hunter day
2000	3	0.4			
2001	3	0.2			
2002	3	1.1			
2003	3	0.6			
2004	3	0.6			
2005	3	0.7			
2006	3	0.8			
2007	3	0.6			
2008	3	0.8			
2009	3	0.62			
2010	n/a				
2011	3	0.5			
2012	3	0.63			
2013	3	0.45			

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

Table 18. Mourning doves banded in Southeast Region, 2003-present.

	Adult					
Year	Male	Female	Unknown	Hatch-year	Unknown	Total
2003	17	11	1	50	1	80
2004	54	45	7	33	0	139
2005	30	50	44	26	0	150
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
Total	110	165	72	118	10	475

Table 19. Estimated cottontail rabbit harvest, Southeast Region, 2001-present.

Year	Hunters	Harvest	Days	Rabbits/hunter day
2001	686	3,080	2,666	1.2
2002	29	146	58	2.5
2003	590	7,190	7,819	0.9
2004	897	5,509	4,803	1.1
2005	472	2,821	1,369	2.1
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
3-year avg.	758	2809	3,730	0.6

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, 2011 to June 30, 2012

UPPER SNAKE REGION

Climatic Conditions

Overall, climatic conditions were favorable for upland game birds throughout this reporting period. The summer of 2011 was moist and the region saw exceptional vegetation growth, creating excellent habitat conditions throughout the region. The winter of 2011-2012 was mild, with less than average snow pack. The minimal winter snowpack receded quickly and spring and summer conditions have been dry.

Trapping and Translocation

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

Pheasant

Population Surveys

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

Harvest Characteristics

No check stations were operated during the 2010 pheasant season (Table 1).

A mail-in and telephone survey for upland game estimated that 1,039 hunters harvested 1,252 pheasants in 2011 (Table 1). The estimated harvest was 0.46 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 ninety-nine pheasant cocks were released at Mud Lake WMA, 976 at Market Lake WMA, and 664 at Cartier Slough WMA during the 2011 hunting season. Two releases were made weekly on each WMA throughout the pheasant hunting season. Adult hunters hunting on WMAs where game-farm pheasants were released were again required to obtain a WMA pheasant permit in 2011.

Management Implications

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

Forest Grouse

Population Surveys

Forest grouse populations are not sampled in 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. Fifty-five rough grouse wings were collected at check stations, wing barrels, or turned in to the Department during the 2011 season. This resulted in a juvenile:adult ratio of

358:100. Sixteen blue grouse wings were turned in during the 2011 season, yielding a ratio of 100:100.

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 2008 (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 100 hunters checked on opening weekend of sage grouse season. Number of forest grouse in the bag of sage grouse hunters provides a rough index to their abundance in or near areas inhabited by sage grouse. Seven ruffed grouse and 4 blue grouse were checked at sage grouse check stations in 2011, producing an estimate of 3.9 forest grouse per 100 hunters (Table 2).

The 2011 statewide telephone survey estimated 2,287 hunters harvested 5,166 forest grouse in the Region. The 2011 estimated forest grouse harvest per day was 0.3.

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 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 Upper Snake Region in sagebrush-steppe habitat. Seventeen lek routes were counted in 2012. 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 once in 2009. 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 2012 are displayed in Table 3.

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 but declined in 2011 (Table 4).

Harvest Characteristics

We ran 2 check stations in the region to monitor sage grouse harvest characteristics; previously the Upper Snake region had conducted 3 checkstations. The Hwy. 26 checkstation 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 2011 season estimated 1,103 hunters harvested 988 sage grouse (Table 5). The estimated sage grouse harvest per day in 2011 was 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. For the region (harvest zones 6, 7C, 7D, and 8B), more hunters hunted opening weekend than hunted after opening weekend. Additionally, more sage grouse were taken on opening weekend than after. Traditional perception that most of the sage grouse hunting and harvest occurs on opening weekend of sage grouse season. The 2010 data suggest that 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's Boise office.

Management Implications

Sage grouse populations fluctuate from year to year relative to weather conditions and, over longer time, from habitat alterations. Harvest is dependent upon hunting conditions, 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 in 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 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 OSC 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

Five sharp-tailed grouse lek routes were surveyed in the Region during 2012 (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 2011.

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. These efforts, along with wings mailed-in to the department, resulted in the collection of 1,078 wings. Analysis of the wings indicated 146 juveniles:100 adults for 2011 (Table 7).

Harvest Characteristics

Trends in harvest of sharp-tailed grouse were historically monitored through the Red Road check station on opening weekend of the sage and sharp-tailed grouse seasons (Table 8). However, since 1998, sharp-tailed 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 2011 season estimated 791 hunters harvested 1,163 sharp-tailed grouse (Table 8). The estimated sharp-tailed grouse harvest per day in 2011 was 0.6. These estimates are not comparable with the telephone surveys done prior to 1996.

Habitat Conditions

Lands enrolled in the CRP program 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 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 identified. The dominant land use in which grouse were observed was land enrolled in the CRP, but leks were always 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 the spring of 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 again since then. 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. 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.

Chukar

Population Surveys

No chukar production data were collected during this reporting period. No wings were collected at check stations, wing barrels, or turned in to the Department during the 2011 season, making any estimate of production impossible.

Harvest Characteristics

A telephone survey estimated 336 hunters harvested 438 chukars in 2011 with 0.7 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. Six chukar were checked in 2011.

Management Implications

Chukar are not numerous 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, and lower Birch Creek valleys. 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. Forty-six gray partridge wings were collected at check stations, wing barrels, or turned in to the Department during the 2011 season. The juvenile: adult ratio was 170:100, although 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 survey. No gray partridge were checked in Upper Snake Region in 2010 (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 the fairly dramatic swings in estimated hunter numbers and harvest between years.

Habitat Conditions

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

Gray partridge are distributed at lower elevations throughout Upper Snake Region, but densities are relatively low. In drier years, the birds concentrate around moist areas and hay fields but have a more general distribution in years with normal precipitation. Nesting occurs in and around hay or grain fields. Although gray partridge are 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 may have had a negative impact on gray partridge numbers for the 2008 hunting season, while the winters of 2009 and 2010 were relatively mild and harvest estimates subsequently increased.

Wild Turkey

Population Surveys

There were no population surveys conducted during this reporting period; however, turkeys have been observed along the South Fork Snake River and adjacent tributaries and habitat, the lower Henrys Fork, the lower Falls River, the 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 Hunt Area 950 (Hunts 950-1, 950-2, and 950-3), which included the entire region, in spring 2011. The harvest estimate was 52 turkeys (Table 11). Beginning in the fall of 2008, a fall youth-only controlled turkey hunt was offered throughout the Upper Snake (Controlled Hunt Area 950-4). Twenty-five permits were offered in 2011, resulting in an estimated 21 youth that actually hunted and a harvest of 7 turkeys (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 were no turkey depredation complaints reported to the Upper Snake Region between 2008 and 2011.

Management Implications

Turkey hunter success in the region remains relatively low, although success increased for the 2009 season. Hunter success on the spring-controlled hunts was 27% in 2008, 37% in 2009, and 31% in 2010. Turkey harvest fell to 23% in 2011 following a severe winter. Anecdotal

information from hunters and department staff indicate that the severe winter of 2010-11 may have reduced the turkey population in the Upper Snake Region.

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 2011 sage grouse season. 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 2011, 137 doves were banded at two sites. A total of 1,204 total doves were banded in the region between 2003 and 2011.

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 opening (1 Sep) or shortly thereafter. Management efforts are aimed at minimizing sportsmen/landowner conflicts and improving habitat indirectly through HIP windbreaks, guzzlers, and CRP plantings. We will continue to take advantage of harvest opportunities as allowed by federal regulations.

Rabbits and Hares

Starting in 2002, the pygmy rabbit 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 191 hunters harvested 384 cottontail rabbits in Upper Snake Region during 2011 (Table 15). The survey also estimated that 78 hunters harvested 234 snowshoe hare in the region in 2011. However, 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. 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, 2000-present.

	Check station				Telephone survey[a]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds	Birds per hunter day
2000[b]	4	0	0.0				
2001[b]	1	2	2.0	1.3	1,125	2,573	0.5
2002[c]					719	1,718	0.6
2003[c]					954	2,654	0.3
2004[c]					1,103	2,625	0.7
2005[c]					1,258	5,790	1.1
2006[c,d]					1,523	4,869	0.8
2007[c,d]					1,662	4,960	0.8
2008[c,d]					1,730	5,894	0.7
2009[c,d]					1,744	5,237	0.7
2010[c,d]					1,374	6,419	0.9
2011 [c,d]					1,039	1,252	0.5
3-year average					1,311	4,142	0.7

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

	Check station					Telephone survey		
		Number of grouse			Forest grouse/100		Birds	Birds per hunter
Year	Hunters[a]	Blue	Ruffed	Total[b]	hunters	Hunters	harvested	day
2000	573	23	5	28	4.9			
2001	611	13	7	20	3.3	3,675	23,213	1.1
2002	742	48	12	60	8.1	2,745	17,200	1.1
2003	751	14	9	23	3.1	4,291	21,116	0.9
2004	647	11	1	33	5.1	4,459	14,900	0.7
2005	597	3	0	3	0.0	2,538	7,219	0.6
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	0.28
10-year average	582	9.2	7.1	18	3.1	3,295	12,417	0.6

[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, 2000-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
2000	30	153	104	159	157	210	122	19	181	19	213	165	116	70	135	50	29		1,932	114
2001	28	106	115	165	115	149	104	22	138	10	284	174	138	89	125	67	31	51	1,911	106
2002	61	111	82	101	109	180	84	12	135	11	153	74	61	148	110	81	35		1,548	91
2003	98	110	114	144	81	233	138	25	167	34	189	157	105	135	132	51		35	1,948	115
2004	41	137	92	201	91		131	28	152		167	175	66	98	124		43	87	1,633	109
2005	85	124	142	213	57		130	40	136		314	322	55	179	220		111	72	2,200	147
2006	125	136	247	165	115		130	50	144		354	264	80	132	218		150	69	2,379	159
2007	133	182	327	276	79	278	114	70	195		296	157	44	73	100		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	100	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
10-year Avg	77	122	187	178	92	278	108	45	132	21	265	154	53	112	127	51	74	55	1946	125

[a] LBC = Lower Birch Creek, RR = Red Road, J = Jacoby, ML = Medicine Lodge, LL = Little Lost, L = Lidy, P = Plano, UBC = Upper Birch Creek, CC = Crooked Creek, MLk = Market Lake, SS = Sheep Station, TB = Table Butte, SR = Stibal Road, I = Idaho National Laboratory, TF = Tractor Flat, LBL = Lower Big Lost, AC = Antelope Creek, and UBL = Upper Big Lost.

[b] Route discontinued in 2004.

[c] New route established in 1989.

[d] New route established in 1995.

[e] New route established in 1997.

[f] New route established in 1998.

[g] New route established in 2001

.

Table 4. Greater sage grouse production based on wing collections, Upper Snake Region, 2000-present.

Year	Juveniles:100 females	Juveniles:100 adults
2000[a]	171	127
2001[a]	188	136
2002[a]	276	213
2003[a]	166	119
2004[a]	200	147
2005[a]	297	215
2006[a]	267	172
2007[a]	110	71
2008	182	138
2009	217	161
2010	227	171
2011	160	106
10-year average	210	151

[a] Small sample sizes.

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

	Check station				Telephone survey[a]		
Year	Hunters[b]	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds	Birds per hunter day
2000	573	387	0.7	5.6	1,672	2,221	0.6
2001	611	367	0.6	6.5	1,777	2,147	0.6
2002	742	610	0.8	4.3	1,877	2,532	0.6
2003	751	515	0.7	5.0			
2004	647	349	0.5	5.9	2,240	2,263	0.5
2005	579	412	0.7	5.0	3,272	3,658	0.7
2006[c]	553	302	0.5	7.1	3,339	3,883	0.6
2007[d]	490	306	0.6	6.3	2,119	2,280	0.6
2008[d]	660	589	0.9	4.8	2,768	5,339	0.8
2009[e]	651	574	0.9	4.7	2,229	4,651	0.9
2010[e]	446	246	0.6	6.9	1,051	1,698	0.6
10-year average	613	427	0.7	5.7	2,347	3,161	0.7

[a] Telephone survey data for 2003 is not available.
[b] Number of hunters includes those hunting for forest grouse, sage grouse, and partridge.
[c] Telephone survey data reported in this table includes zones 6 and 8.
[d] Telephone survey data reported in this table includes zones 6, 7A, and 8.
[e] 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, 2000-present.

	Route - maximum total count						
Year	Sand Creek	Grassy	Pine Creek	Teton River[a]	Ozone[a]	Birch Creek[a]	Chokecherry[b]
2000	43	28	21				
2001	41	33	21				
2002	29	21	29				
2003	60	20	26				
2004	31	19	71	52	14	1	
2005	34	22	74	60	14	55	
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
10-year average	46		50				

[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, 2000-present.

Year	Juveniles:100 adults	*n*
2000	68	89
2001	61	134
2002	140	113
2003	38	73
2004	90	50
2005	73	206
2006	112	240
2007	114	148
2008	155	263
2009	170	448
2010	135	360
2011	146	308
10-year average	109	204

[a] Small sample sizes with the exception of 2009.

Table 8. Estimated sharp-tailed grouse harvest, Upper Snake Region, 2000-present.

	Check station				Telephone survey[a]		
Year	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds	Birds per hunter day
2000[b]	39	19	0.49	6.4	1,019	2,107	0.7
2001[b]	23	15	0.65	5.5	891	1,344	0.6
2002[b]	4	0	0.00		793	1,295	0.6
2003[c]							
2004[c]					944	1,436	0.6
2005[c]					1,112	1,763	0.7
2006[c,d]					1,307	2,668	0.7
2007[c,d]					833	1,645	0.7
2008[c,d]					1,019	1,967	0.7
2009[c,d]					979	1,907	0.8
2010[c,d]					893	1,171	0.7
2011[d]	15	21	1.4	3	791	1,163	0.6
10-year average					867	1,502	0.6

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

Table 9. Estimated chukar harvest, Upper Snake Region, 2000-present.

	Check station			Telephone survey[a]			
Year	Hunters[b]	Birds harvested	Birds per hunter	Hunters	Birds harvested	Hunter days	Birds per hunter day
2000	573	15	0.026				
2001	611	24	0.039	213	383	752	0.5
2002	742	15	0.020	331	662	1,045	0.6
2003	751	8	0.011	490	820	1,283	0.6
2004	647	2	0.003	495	1,953	2,511	0.8
2005				726	3,206	2,128	1.5
2006	553	60	0.109	373	786	910	0.9
2007	490	42	0.086	272	300	551	0.5
2008[c]	660	0	0.000	446	4,772	5,154	0.9
2009[c]	651	6	0.009	271	3,134	2,952	1.1
2010	446	0	0.000	512	381	1,344	0.3
2011	285	6	0.02	336	438	617	0.7
10-year average	523	14	0.026	425	1,645	1,850	0.79

[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, 2000-present.

	Check station			Telephone survey[a]			
Year	Hunters[b]	Birds harvested	Birds per hunter	Hunters	Birds harvested	Hunter days	Birds per hunter day
2000	573	12	0.021				
2001	611	1	0.002	825	2,319	2,516	0.9
2002	742	4	0.005	840	1,443	2,079	0.7
2003	751	0	0.000	626	761	1,758	0.4
2004	647	8	0.012	547	1,280	2,115	0.6
2005	597	22	0.037	765	3,271	3,451	1.0
2006	553	4	0.007	828	4,252	3,278	1.3
2007[c]	490	7	0.014	723	7,190	3,398	2.1
2008	660	3	0.005	347	1,344	2,048	0.7
2009	651	7	0.011	454	3,526	3,258	1.1
2010	446	0	0.000	533	3,102	2,467	1.3
2011	285	7	0.025	388	891	1,415	0.6
10-year average	582	6.2	0.012	605	2,706	2,527	1.0

[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, 1987-present.

Hunt type	Year[a]	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
Controlled	1987	3	9	9	6		
	1988	3	9	9	1	33	33
	1989	1	3	3	0	0	5
	2002	1	10	10	2	20	40
	2003	1	100	81	45	10	430
	2004	2	200[b]	121	39	30	1,159
	2005	2	200[b]	169	70	13	934
	2006	2	250[c]	206	50	20	984
	2007	2	250[c]	224	62	15	916
	2008	3	300[d]	276	75	15	1,094
	2009	3	300[d]	219	81	12	1,004
	2010	3	300[d]	263	81	12	939
	2011	3	300[d]	228	52	22	1,140

[a] Hunts were not offered from 1990-2001.
[b] Includes 25 youth permits and 175 any hunter permits.
[c] Includes 50 youth permits and 200 any hunter permits.
[d] 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	9	105

[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, 2003-present.

	Adult					
Year	Male	Female	Unknown	Hatch-year	Unknown	Total
2003	4	7	1	8	0	20
2004	73	20	11	122	0	226
2005	58	42	5	98	1	204
2006	84	8	2	52	0	146
2007	82	22	1	44	0	149
2008	28	10	1	11	0	100
2009	64	23	0	59	0	146
2010	24	19	33	43	2	76
2011	59	21	9	47	0	137
Total	476	172	63	484	3	1204

Table 15. Estimated cottontail rabbit and snowshoe hare harvest, Upper Snake Region, 2003-present.

	Cottontail rabbit		Snowshoe hare	
Year	Hunters	Cottontails harvested	Hunters	Hares harvested
2003	514	2,356	18	18
2004	726	3,584	110	355
2005	204	1,111	37	92
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
3-year average	375	2,879	101	188

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

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, 2011 to June 30, 2012

SALMON REGION

Climatic Conditions

Rainfall during summer months in 2010 was above average, with some cool, moist weather during spring and early summer. Vegetative growth appeared well above average. Winter conditions were somewhat harsh, with normal temperatures and above normal precipitation, particularly during early winter. In general, animals should have entered winter in above average body condition, and then encountered an average to harsh winter, which should have produced low to moderate over-winter survival for adults. Snow-pack (as measured at higher elevations) was approximately 114% of average by late winter. Onset of spring weather and associated plant phenology was later than normal in 2011. Water-year precipitation through June 2011 has been approximately 126% of average lower elevations (Salmon weather station). Spring and early summer conditions in 2011 were cool and wetter than average.

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

Management Implications

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

Quail

Abstract

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

Population Surveys

No production data were collected during this reporting period.

Harvest Characteristics

Hunting season is closed.

Habitat Conditions

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

Management Implications

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

Forest Grouse

Abstract

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

Population Surveys

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

Harvest Characteristics

As a group, forest grouse account for more hunters 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 Salmon Region is generally not large enough to significantly impact overall grouse populations. However, large-scale wildfires during summer 2000 that set back succession in large areas of GMUs 27 and 28 may lead to future increases in forest grouse populations.

Management Implications

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

Sage-grouse

Abstract

Sage-grouse lek counts and harvest decreased in 1992 and continued a downward trend through 1996. Harvest has apparently remained low, but little effort has been allocated toward local hunter contacts. Region-wide, lek attendance on population index routes has been on an increasing trendsince 1996 (Figure 1).

Population Surveys

Salmon Region personnel have significantly increased sage-grouse lek data collection efforts in recent years, increasing number of leks visited from one in 1979-1981 to a peak of 72 leks in 2012. Data from individual leks or groups of leks show variability in terms of maximum male sage-grouse attendance (Table 3). However, several leks show an increasing trend in male attendance since from 1996. Average lek attendance at population index leks in 2012 (19.5) was very similar to 2009-2011 values, but fell below the 10-year average by 7%. The average of 40.8 males/lek route was approximately 98% of the long-term average (41.9) for routes surveyed for the long-term population index since 1971. In general, spring lek counts in and of themselves are apparently not good indicators of fall harvest in Salmon Region.

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

Harvest Characteristics

The hunting season was reduced from a 23 day, 2 bird daily limit season to a 7-day, 1 bird daily limit (2 in possession) season in 2009 and 2011 due to a lower number of males per lek in the population index. Restrictive seasons resulted in 78-83% reductions in harvest and 64-73% reductions in hunter numbers compared to 2000-2008 averages (Table 5). Based on a check station at Sage Junction in Upper Snake Region, hunter days and harvest reached a new low in 2010 (Table 5). Some roving field checks of sage-grouse hunters during opening weekends occurred in the past (Table 6), but have been largely discontinued. Data from both types of field checks and from telephone surveys are somewhat correlated.

Habitat Conditions

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

Habitat Use Monitoring

Since 2002 regional staff participated in a series of challenge cost-share agreements with BLM and projects in cooperation with the LWG to search for undocumented sage-grouse leks and capture sage-grouse to identify winter habitat use and characteristics of nesting and brood-rearing locations.

During the winter of 2011 (n=1 F) and the spring of 2012 (n=24; 17 F, 7 M), 25 sage-grouse were radio-marked in the Challis Sage-grouse LWG Area. Sage-grouse where captured in both Region 6 and Region 7 including GMU 50 (n=20; 17 F, 3 M), GMU 36A (n=3; 1 F, 2 M), and GMU 28 (n=2 M). We also monitored 12 males and 4 females previously instrumented in the Antelope Flat, Corral Basin, and Arentson Gulch areas. During the winter of 2011 and spring and summer of 2012, 1,573 telemetry locations were recorded.

We located 14 nests, 7 of which were successful. Habitat measurements were collected at 14 nest sites and 3 brood sites during spring 2012.

Harvest rates of marked birds have been relatively low with only 7 of 222 marked sage-grouse reported as harvested from 2002 to 2010.

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 does not appear to be thriving.

Sage-grouse production is strongly dependent upon spring weather. Cold and wet conditions during hatching and brooding can significantly decrease production. Most sage-grouse nesting

habitat throughout Salmon Region can be subject to severe spring weather. This is a normal phenomenon for relatively high-elevation sage-grouse range. A 1- to 2-year decline in productivity (indicated by harvest and lek counts) due to weather is not necessarily indicative of a declining population.

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 from year to year depending upon weather conditions and real or perceived availability of birds (Table 7). Estimates of regional harvest appear to fluctuate widely and may reflect inadequate sampling of hunters in the region.

Habitat Conditions

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

Management Implications

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

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

Gray Partridge

Abstract

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

Population Surveys

No production data were collected during this reporting period.

Harvest Characteristics

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 8). 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 Salmon Region to augment existing groups and in novel areas. However, habitat limitations and access to private property may restrict ability to permit significant hunting opportunity.

Population Surveys

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

Harvest Characteristics

A controlled hunt with 5 permits was instituted in GMUs 36B and 37 in spring 2005. An additional 10 permits were added in 2008 plus a youth hunt with 5 permits was offered. Hunter success was 100% in 2006 -2010 seasons.

Habitat Conditions

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

Trapping and Translocation

No activities occurred during the study period. Between 1991 and 1999, 139 wild turkeys were released in Salmon Region to augment existing groups and in novel areas (Table 9).

Management Implications

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

Mourning Dove

Abstract

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

Population Surveys

Salmon Region contains a breeding population of mourning doves. The only population information is obtained from a call count in the southern portion of Lemhi Valley. During 1985, 1986, and 1987, a total of 4 mourning doves were seen or heard along the route (Table 10). Doves heard and seen increased in the 2000's, but declined to only 1 dove seen in 2010 and 2011. In 1988, the southern half of the route was relocated 3 miles to the east. Beginning in 2000, the western portion (approximately 7 miles) of the route on Highway 28 was relocated to the north and east. The new section follows Lemhi Back Road from Leadore to Little Eightmile Creek.

Trapping and Translocation

As part of a national mourning dove banding project (under auspices of USFWS), staff in Salmon Region have captured and banded doves since 2003 (Table 11). Capture was conducted

at 2 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 2003 at the Baker site. Minimum survival rates for doves captured in 2003 at Baker were 42% through 2004 and 30% through 2005. Minimum 1-year survival for doves captured in 2004 through 2010 at Baker ranged from 6% to 23%.

Harvest Characteristics

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

Habitat Conditions

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

Management Implications

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

Rabbits and Hares

Abstract

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

Population Surveys

No production data were collected during this reporting period.

Harvest Characteristics

Salmon Region contains huntable populations of both cottontails and pygmy rabbits. However, harvest seasons for pygmy rabbits were closed in 2002. Rabbits and hares appear to be of only incidental interest to sportsmen. Harvest apparently varies greatly from year to year, depending upon rabbit populations (Table 12). 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 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.

Literature Cited

Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000. Guidelines to manage sage-grouse populations and their habitats. Wildlife Society Bulletin 28:967-985.

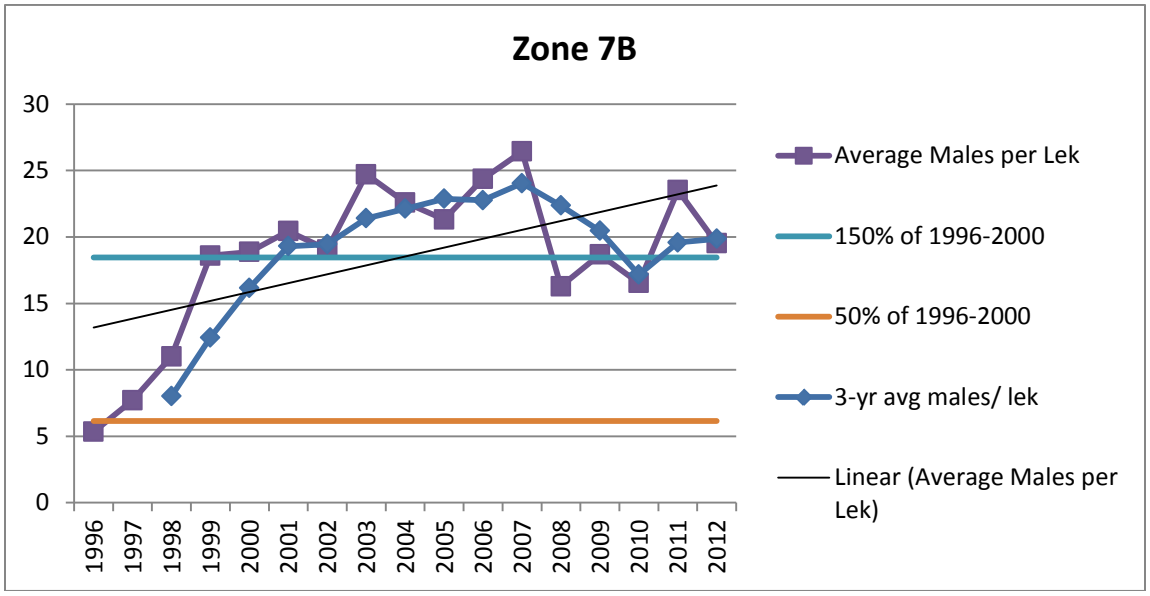


Figure 1. Average number of male sage-grouse/active lek, Salmon Region, 1996-present.

Table 1. Estimated pheasant harvest, Salmon Region, 2001-present.

Year	Hunters	Birds harvested	Hunter days	Birds/ hunter	Birds/ hunter day
2001	206	365	875	1.8	0.4
2002	445	686	980	1.5	0.7
2003	60	60	119	1.0	0.5
2004	173	279	398	1.6	0.7
2005	169	377	425	2.2	0.9
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
3-year average	119	215	439	1.6	0.6

Table 2. Estimated forest grouse harvest, Salmon Region, 2001-present.

Year	Hunters	Birds harvested	Hunter days	Birds/ hunter	Birds/ hunter day
2001	2,171	10,914	11,304	5.0	1.0
2002	1,941	6,636	7,544	3.4	0.9
2003	2,179	15,821	11,041	7.3	1.4
2004	1,789	6,848	8,155	3.8	0.8
2005	1,437	5,107	5,810	3.6	0.9
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	1,009	3,636	4,364	3.6	0.8
3-year average	1,254	3,903	7,123	3.4	0.6

Table 3. Male greater sage-grouse counted on Lower Lemhi lek route, Salmon Region, 2000-present.

Year	Lower Lemhi lek L-3	Lower Lemhi lek route (L-3 to L-5)
2000	0	0
2001	0	18
2002	15	31
2003	19	34
2004	16	23
2005	11	28
2006	15	42
2007	21	43
2008	15	34
2009	16	30
2010	13	32
2011	13	29
2012	15	23

Table 4. Greater sage-grouse production based on wing collections, Salmon Region, 2000-present.

Year	Juv:100 females	Juv:100 adults	Percent unsuccessful females
2000	149	100	51
2001	218	117	55
2002	229	114	67
2003	280	124	73
2004	190	121	81
2005	117	50	44
2006	188	143	50
2007	112	63	67
2008	100	58	47
2009	200	105	27
2010	106	72	47
2011	92	75	46

Table 5. Estimated greater sage-grouse harvest, Salmon Region, 2000-present.

	Check station[a]				Telephone survey[b]		
Year	Hunters	Birds harvested	Birds/ hunter	Hours/ bird	Hunters	Birds harvested	Birds/ hunter day
2000	48	60	1.3	5.7	526	788	1.5
2001	41	29	0.7	7.8	440	571	1.3
2002	63	60	1.0	6.4	629	956	0.7
2003	52	50	1.0	7.9			
2004	25	20	0.8	5.4	364	459	0.6
2005	33	40	1.2	7.7	728	949	0.7
2006	48	65	1.4	7.5	946	1,813	0.8
2007					289	495	0.6
2008	36	44	1.2	4.5	299	487	0.6
2009[c]	30	21	0.7	5.8	189	182	0.4
2010[d]	24	14	0.6	9.7	142	135	0.5
2011	5	4	0.8	8.0	120	66	0.3
10-year average	35	35	1.0	7.0	412	616	0.6

[a] Howe and Sage Junction check stations.

[b] Data from 2000-2003 includes all mountain-valley areas (zones 7A and 7B). Telephone survey data for 2003 is not available.

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

[d] Howe Check station discontinued in 2010.

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

Area Year	Hunters	Birds harvested	Birds/hunter	Hours/bird
Lemhi Valley				
1981	105	199	1.9	2.6
1982	48	55	1.2	5.1
1983	133	128	1.0	4.0
1984	49	50	1.0	5.1
1985	117	81	0.7	9.2
1986	104	120	1.2	4.3
1987	97	134	1.4	4.2
1988	67	94	1.4	3.9
1989	34	30	0.9	5.1
1990	23	31	1.3	2.7
1992	101	77	0.8	6.2
1994	59	58	1.0	4.6
1995	18	12	0.7	5.2
1997	6	0	0.0	
1998	18	11	1.6	7.2
1999	19	22	1.2	3.5
2001	11	5	0.5	13.2
Pahsimeroi Valley				
1981	108	134	1.2	3.7
1982	71	68	1.0	3.6
1983	13	4	0.3	11.0
1984	8	5	0.6	7.8
1985	55	46	0.8	3.7
1986	22	43	2.0	3.1
1987	44	57	1.3	
1988	25	21	0.8	1.7
1989	33	38	1.2	1.7
1990	15	12	0.8	4.7
1992	21	16	0.8	3.0
1994	19	8	0.4	8.0
1995	2	1	0.5	6.0
1997	2	5	0.4	4.4
1998		4	2.0	3.5

Table 7. Estimated chukar harvest, Salmon Region, 2001-present.

Year	Hunters	Birds harvested	Hunter days	Birds/ hunter	Birds/ hunter day
2001	927	6,847	4,236	7.4	1.6
2002	1,276	7,080	4,282	5.5	1.7
2003	2,341	14,046	9,717	6.0	1.4
2004	1,744	11,852	7,374	6.8	1.6
2005	726	3,206	2,128	4.4	1.5
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
3-year average	612	3,464	2,550	5.4	1.3

Table 8. Estimated gray partridge harvest, Salmon Region, 2001-present.

Year	Hunters	Birds harvested	Hunter days	Birds/ hunter	Birds/ hunter day
2001	283	1,209	1,418	4.3	0.9
2002	322	966	1,057	3.0	0.9
2003	217	236	370	1.1	0.6
2004	403	217	1,839	0.5	0.1
2005	272	1,082	960	4.0	1.1
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
3-year average	60	229	118	4.9	1.7

Table 9. Turkey translocation history, Salmon Region, 1983-1999.

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

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

Table 10. Mourning dove call-count survey results and estimated harvest, Salmon Region, 2000-present.

	Call-count routes		Telephone survey[a]		
Year	Miles counted	Doves/mile	Hunters	Birds harvested	Birds/ hunter day
2000[b]	20	0.00			
2001	20	0.15			
2002	20	0.30			
2003	20	0.35			
2004	20	0.55			
2005	20	0.05			
2006	20	0.60			
2007	20	1.30			
2008	20	0.65			
2009	20	1.15			
2010	20	0.05			
2011	20	0.15			
2012	20	0.15			

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

[b] Route relocated.

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

	Adult					
Year	Male	Female	Unknown	Hatch-year	Unknown	Total
2003	37	22	6	17	0	82
2004	63	19	18	44	0	144
2005	53	32	12	51	1	149
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
Total	402	184	115	291	2	994

Table 12. Estimated cottontail harvest, Salmon Region, 2001-present.

Year	Hunters	Cottontails harvested	Days hunted	Cottontails/ hunter	Cottontails/ hunter day
2001	114	321	161	2.8	2.0
2002	29	58	58	2.0	1.0
2003	166	474	327	2.9	1.4
2004	388	4,337	1,582	11.2	2.7
2005	82	232	168	2.8	1.4
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
3-year average	57	181	248	3.3	0.8

APPENDIX A

IDAHO

2011 SEASON

UPLAND GAME RULES

2010-2011 & 2011-2012 Upland Game, Furbearer & Turkey Seasons and Rules

Photo courtesy Paul Spurling

RULES

2010 — 2011
2011 — 2012

Upland Game Birds, Turkey, Rabbits and Hares
April 2010 - March 2011
April 2011 - March 2012

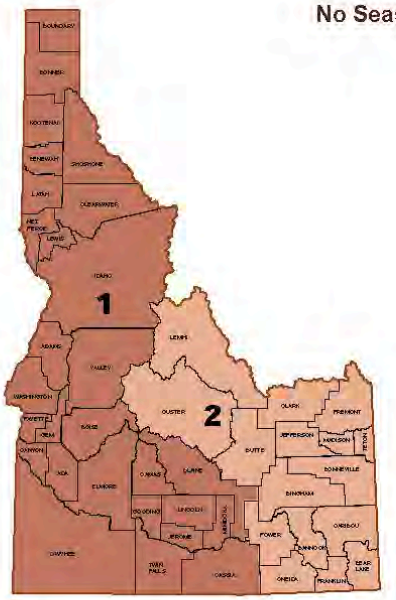
Furbearers, Predators & Unprotected Species
July 2010 - June 2012

Crows, Doves and Sandhill Cranes
September 2010 - January 2011
September 2011 - January 2012

Falconry
August 2010 - March 2012

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

2010 — September 18 through January 31, 2011

2011 — October 1 through January 31, 2012

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

Possession Limit
After First Day of Season ..... **20 in the aggregate**

Area 2

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

California Quail

California Quail

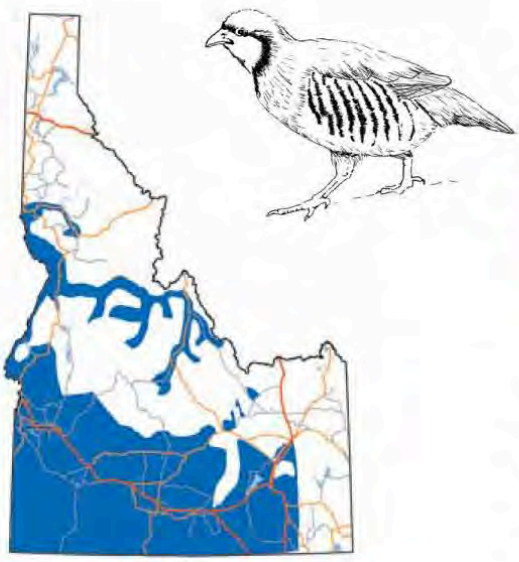
Distribution and Habitat Use: Shaded area(s) show general distribution of these species. There are three introduced and one native species of quail in Idaho. The California (valley) quail, which occurs from Twin Falls west to the Oregon border and north to the Palouse Prairie, is the most common. Good 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. Hunters should not expect to encounter bobwhite quail. 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

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.

Chukar and Gray Partridge

Entire State Open



Chukar

Seasons

2010 — September 18 through January 31, 2011

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

Possession Limit
After First Day of Season .. **16 Chukar & 16 Gray Partridge**

2011 — October 1 through January 31, 2012

Daily Bag Limit ..... **6 Chukar & 6 Gray Partridge**

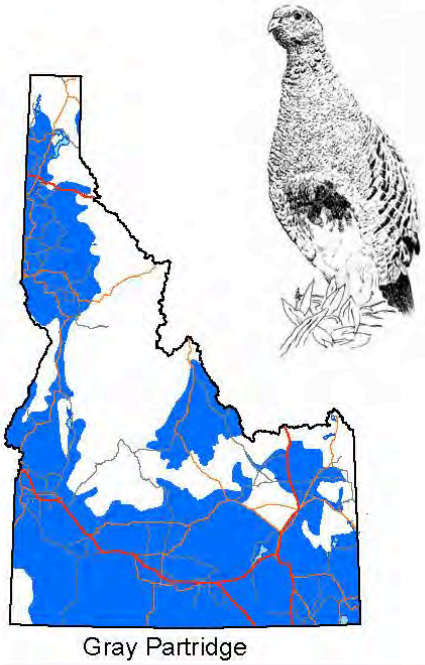
Possession Limit
After First Day of Season .. **12 Chukar & 12 Gray Partridge**

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, is most common in agricultural regions, but can also be found in sagebrush/grassland areas. They are hardy birds able to withstand severe winter weather if adequate food is available. Gray partridge are widely distributed, but are most common in the state's agricultural valleys.



Gray Partridge

Photo courtesy Jeff Kretter

Sage-Grouse

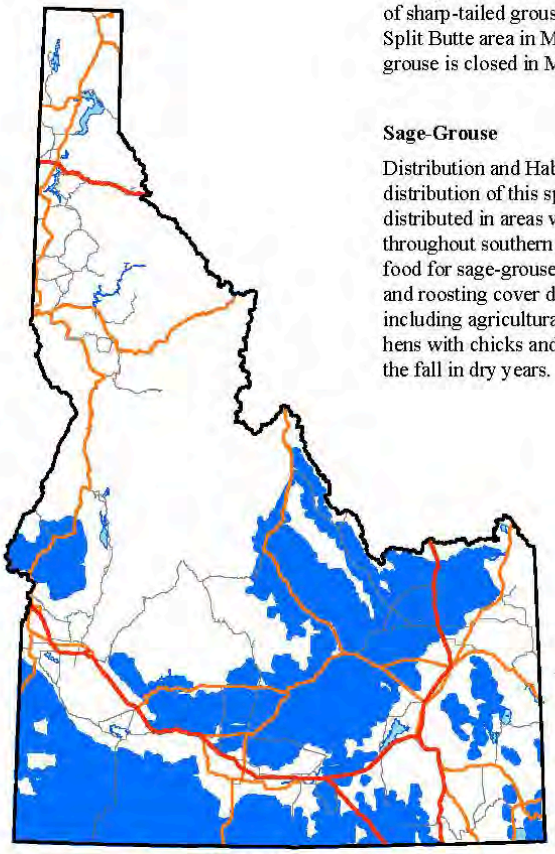
Sage-grouse seasons will be set in August.
A separate brochure will be available in August.

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 46, 53 and 54.

Identify Your Target!

Is it a sage-grouse or a sharp-tailed grouse?

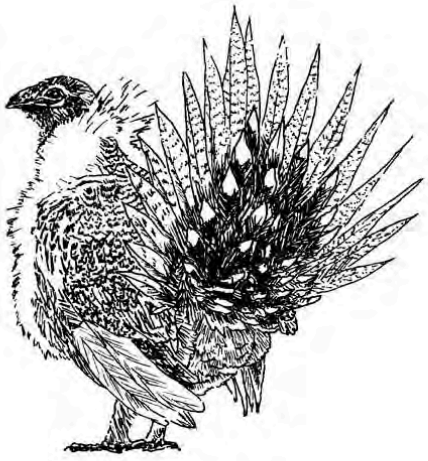
Note: Sharp-tailed grouse have recently been introduced into historical range in southern Twin Falls County and southeastern Owyhee County. Twin Falls County, Owyhee County and most of Cassia County are closed to the hunting of sharp-tailed grouse. Sharp-tailed grouse also occur around Split Butte area in Minidoka County. Hunting of sharp-tailed grouse is closed in Minidoka County. Be sure of your target!



Sage Grouse

Sage-Grouse

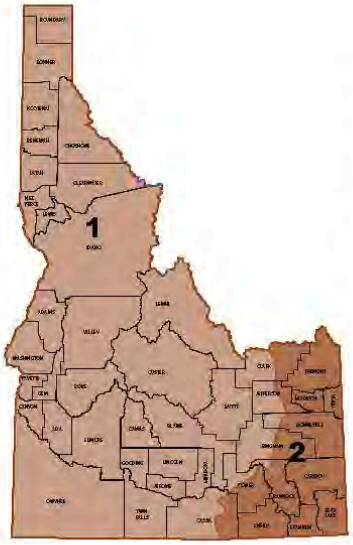
Distribution and Habitat Use: Shaded area(s) show general distribution of this species. This native grouse is widely distributed in areas with large blocks of sagebrush habitat throughout southern Idaho. Sagebrush is a crucial winter food for sage-grouse and also provides them with nesting and roosting cover during the rest of the year. Wet places, including agricultural lands, are important feeding areas for hens with chicks and are heavily used by sage-grouse during the fall in dry years.



Sharp-tailed Grouse

Note: Sharp-tailed grouse have recently been introduced into historical range in southern Twin Falls County and south eastern Owyhee County. These areas remain closed to hunting for sharptails to protect these populations. Also, the season is closed on a small remnant population north of Weiser.

Sharp-tailed grouse also occur around Split Butte area in Minidoka County. Hunting of sharp-tailed grouse is closed in Minidoka County.



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 46, 53 and 54.

Area 1

Ada, Adams, Bannock County west of Interstate 15 and north of Interstate 86, Benewah, Bingham County west of Interstate 15, Blaine, Boise, Bonner, Bonneville County west of Interstate 15, Boundary, Butte, Camas, Canyon, Cassia County west of Interstate 84 north of the Malta-Sublett Road and west of the Malta-Strevell Road, Clark County west of Interstate 15, Clearwater, Custer, Elmore, Gem, Gooding, Idaho, Jefferson County west of Interstate 15, Jerome, Kootenai, Latah, Lemhi, Lewis, Lincoln, Minidoka, Nez Perce, Owyhee, Payette, Power County north of Interstate 86, Shoshone, Twin Falls, Valley, and Washington counties; **CLOSED.**

Area 2

Bingham and Clark counties east of Interstate 15, Franklin, Fremont, Jefferson County east of Interstate 15, Madison, and Teton counties, Bonneville County east of Interstate 15, Bannock County east of Interstate 15 and south of Interstate 86, Bear Lake, Caribou, Cassia County east of Interstate 84 and that portion west of Interstate 84 south of the Malta-Sublett Road and east of the Malta-Strevell Road, Franklin, Oneida, and Power County south of Interstate 86.

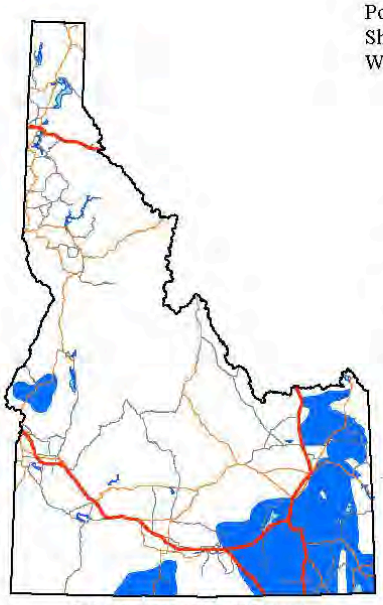
Seasons

2010 — October 1 through October 31

2011 — October 1 through October 31

Daily Bag Limit **2**

Possession Limit
After First Day of Season **4**



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 are currently providing important habitat for this species and have led to increased populations since 1986. Good populations still exist from Fremont County south to Utah in grasslands associated with chokecherry, sagebrush, hawthorn, serviceberry, bitterbrush and other brushy cover.

Pheasants - All Varieties

Area 1

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

Seasons

Area 1 seasons begin at one-half hour before sunrise on opening day and are as follows:

2010 — October 9 through December 31

2011 — October 8 through December 31

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

Possession Limit
After First Day of Season .....**6 cocks**

Area 2

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

Seasons

Area 2 seasons begin one-half hour before sunrise on opening day and are as follows:

2010 — October 16 through November 30

2011 — October 15 through November 30

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

Possession Limit
After First Day of Season .....**6 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. day on Fort Boise, C.J. Strike, Montour and Payette River WMAs.

Seasons

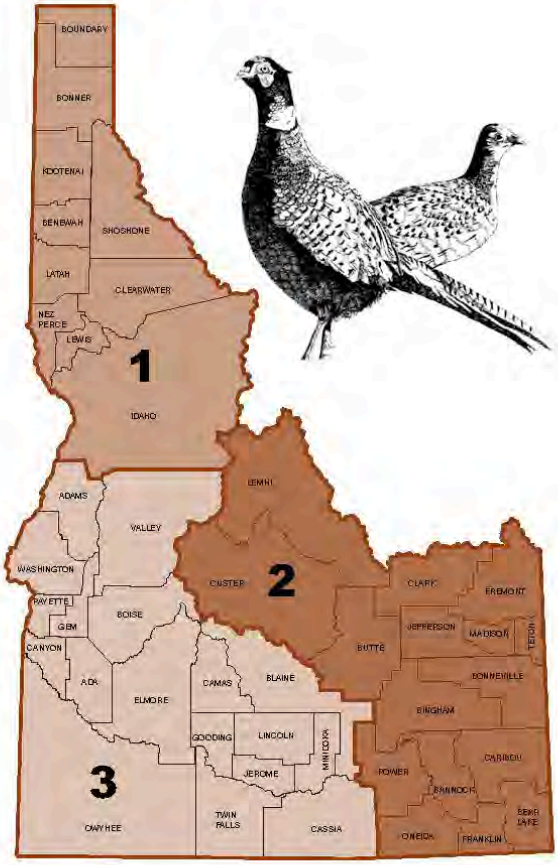
Area 3 seasons begin one-half hour before sunrise on opening day and are as follows:

2010 - October 16 through December 31

2011 - October 15 through December 31

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

Possession Limit
After First Day of Season .....**6 cocks**



Youth Hunt Season

2010 — October 2 through October 8

2011 — October 1 through October 7

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.

Wildlife Management Area Upland Game Bird Permit

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

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

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 48.

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

A. Enter in the space provided, the month and day the pheasant was taken.

B. Enter in the space provided, the location code (listed above) of the WMA where the pheasant was taken.

C. It is not necessary to remove the notch from the permit for each pheasant taken.

NOTE: All upland game hunters and upland game bird 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 2

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

Seasons

Area 2 seasons begin one-half hour before sunrise on opening day and are as follows:

2010 — October 16 through November 30

2011 — October 15 through November 30

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

Possession Limit After First Day of Season ..... **4 cocks**

Area 3

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

Seasons

Area 3 seasons begin at 10 a.m. on opening day in the Southwest Region and one-half hour before sunrise in the Magic Valley Region are as follows:

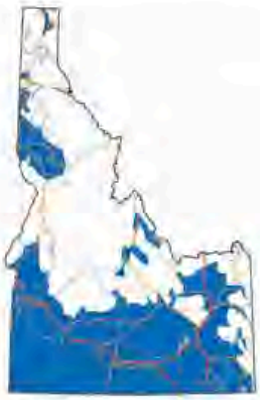
2010 — October 16 through December 31

2011 — October 15 through December 31

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

Possession Limit After First Day of Season ..... **4 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.

Upland Game Animals — Cottontail Rabbits and Snowshoe Hares

Unlawful Methods of Take

No person shall take upland game animals:

- From one-half hour after sunset to one-half hour before sunrise.
- With a trap, snare, net, or shotgun using shotgun shells exceeding 3 1/2 inches in length.
- From boats or other craft having a motor attached **unless** the motor is completely shut off and forward progress has ceased, or the boat is drifting naturally, or it is propelled only by paddle, oars, or pole, or it is beached, moored, or resting at anchor.
- By the use or aid of any electronic call.

To correctly distinguish cottontail rabbits (season open) and pygmy rabbits (season closed), check for these characteristics:

Cottontail Rabbit

Tail: dark above and white underneath.

Size: More than one foot in length (13.5-16.6 inches)

Pygmy Rabbit

Tail: buffy gray with no white on it.

Size: Less than one foot in length (9.7-11.3 inches)

- Contact your local regional office to determine if pygmy rabbits are found in your area of interest.

Areas Closed to Hunting

Hunting, killing, or molesting upland game animals is prohibited in the following areas:

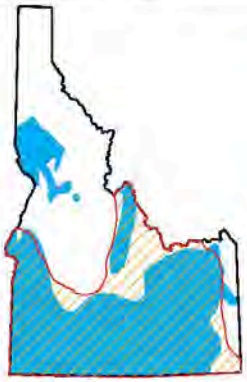
- Craters of the Moon National Monument. See page 49 for a full description.
- Harriman State Park Wildlife Refuge in Fremont County.
- Nez Perce National Historical Park in Clearwater, Idaho and Nez Perce counties.
- That portion of Ada County within Veterans Memorial Park and the area between State Highway 21, Warm Springs Avenue and the New York Canal from the New York Canal Diversion Dam downstream to the Boise City limits.
- Yellowstone National Park in Fremont County.
- Mann's Lake in Nez Perce County and extending 300 yards beyond the Bureau of Reclamation property that encompasses the lake.
- On any of those portions of federal refuges, State game preserves, State wildlife management areas, bird preserves, bird refuges, and bird sanctuaries for which bird hunting closures have been declared by legislative or Commission action.

Seasons, Bags and Possession Limits - Statewide

Species	Season	Daily Bag Limits	Possession Limits
Cottontail Rabbits	September 1, 2010 - February 28, 2011 September 1, 2011 - February 28, 2012	8	16
Pygmy Rabbits	Season Closed		
Snowshoe Hares	September 1, 2010 - March 31, 2011 September 1, 2011 - March 31, 2012	8	16

Shaded areas show general distribution of these species

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



Cottontail Rabbits and Pygmy Rabbits (yellow stripe)

Hares

Mourning Doves and Sandhill Cranes
September 2010 and 2011

2010 and 2011 MOURNING DOVE SEASON AND LIMITS

September 1–September 30

Daily Bag Limit: 10

Possession Limit After First Day Of Season: 20

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

☒ **Federal Migratory Bird Stamp—NOT REQUIRED**

☒ **Nontoxic Shot—NOT REQUIRED**

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

Seasons and limits for sandhill cranes are set annually. Therefore, season changes are published in a separate brochure available at Fish and Game offices and license vendors statewide by August each year.

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 are cooperating 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.

Equipment Restrictions

- Shot Sizes: Sandhill cranes may legally be taken with shot size T (0.2 inches in diameter) or smaller (lead or nontoxic).

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.access.gpo.gov/nara/cfr/waisidx_08/50cfr20_08.html. Violation of federal regulations is also a violation of state law.

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.

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.
- 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 48). "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.
- 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 therefrom has ceased.
- Using records or tapes of migratory bird calls, or sounds,

continued . . .

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 51).

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.
- 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:

No person shall transport within the United States any migratory game birds, except doves and band-tailed pigeons, unless the head or one fully feathered wing remains attached to each such bird at all times while being transported from the place where taken until they have arrived at the personal abode of the possessor or a migratory bird preservation facility.

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).

Official Shooting Hours for Mourning Doves and Sandhill Cranes

During September

(One-half hour before sunrise to sunset)

The tables below have been adjusted to actual shooting times. No further adjustment is necessary.

September	Benewah, Bonner, Boundary, Clearwater, Kootenai, Latah, Lewis,that portion of Idaho County north of the Salmon River, Nez Perce and Shoshone counties.		Blaine, Butte, Camas, Cassia, Custer, Gooding, Jerome, Lemhi, Lincoln, Minidoka, and Twin Falls counties.		Bannock, Bear Lake, Bingham, Bonneville, Caribou, Clark, Franklin, Fremont, Jefferson, Madison, Oneida, Power and Teton counties.		Ada, Adams, Boise, Canyon, Elmore, Gem, that portion of Idaho County south of the Salmon River, Owyhee, Payette, Valley, and Washington counties.	
	Begin AM	End PM	Begin AM	End PM	Begin AM	End PM	Begin AM	End PM
1	5:38	7:31	6:31	8:13	6:25	8:05	6:38	8:21
2	5:39	7:29	6:32	8:12	6:26	8:04	6:39	8:19
3	5:41	7:27	6:33	8:10	6:27	8:02	6:40	8:17
4	5:42	7:25	6:34	8:08	6:28	8:00	6:42	8:15
5	5:43	7:23	6:35	8:07	6:29	7:59	6:43	8:14
6	5:45	7:21	6:36	8:05	6:30	7:57	6:44	8:12
7	5:46	7:19	6:37	8:03	6:31	7:55	6:45	8:10
8	5:48	7:17	6:38	8:01	6:32	7:53	6:46	8:08
9	5:49	7:15	6:39	8:00	6:33	7:52	6:47	8:06
10	5:50	7:13	6:40	7:58	6:34	7:50	6:48	8:05
11	5:52	7:11	6:41	7:56	6:35	7:48	6:49	8:03
12	5:53	7:09	6:42	7:54	6:36	7:46	6:50	8:01
13	5:54	7:07	6:43	7:52	6:37	7:44	6:52	7:59
14	5:56	7:05	6:45	7:51	6:29	7:43	6:53	7:57
15	5:57	7:03	6:46	7:49	6:40	7:41	6:54	7:56
16	5:58	7:01	6:47	7:47	6:41	7:39	6:55	7:54
17	6:00	6:59	6:48	7:45	6:42	7:37	6:56	7:52
18	6:01	6:57	6:49	7:43	6:43	7:35	6:57	7:50
19	6:02	6:55	6:50	7:41	6:44	7:34	6:58	7:48
20	6:04	6:53	6:52	7:39	6:45	7:32	6:59	7:46
21	6:05	6:51	6:53	7:37	6:46	7:30	7:01	7:45
22	6:06	6:49	6:54	7:36	6:47	7:28	7:02	7:43
23	6:07	6:47	6:55	7:35	6:48	7:26	7:03	7:41
24	6:08	6:45	6:56	7:33	6:49	7:25	7:04	7:39
25	6:09	6:42	6:58	7:31	6:50	7:24	7:05	7:37
26	6:11	6:40	6:59	7:29	6:52	7:22	7:06	7:35
27	6:12	6:38	7:00	7:27	6:53	7:20	7:08	7:34
28	6:13	6:35	7:02	7:25	6:54	7:18	7:09	7:32
29	6:14	6:33	7:03	7:23	6:55	7:16	7:10	7:30
30	6:15	6:31	7:04	7:21	6:56	7:14	7:11	7:28

Turkey Seasons

General Hunt Seasons

(maps on page 26)

- April 8-14, 2010 and April 8-14, 2011. General Spring Youth Hunt in Game Management Units open to General Season turkey hunting (See page 20 for age requirements) and open in Controlled Hunt areas to holders of a Youth Only Controlled Hunt Permit.
- April 15, 2010 through May 25, 2010 and April 15, 2011 through May 25, 2011. 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, 2010 through December 15, 2010 and September 15, 2011 through December 15, 2011. General Fall Hunt in Game Management Units 1, 2 (except Farragut State Park and Farragut WMA) 3, 4, 4A, 5 and 6.
- September 15, 2010 through October 31, 2010 and September 15, 2011 through October 31, 2011. General Fall Hunt in Game Management Units 73, 74, 75, 77 and 78.
- September 15, 2010 through October 9, 2010 and September 15, 2011 through October 9, 2011. General Fall Hunt in Game Management Units 8, 8A, 10, 10A, 11, 11A, 12, 13, 14, 15, 16, 16A, 17, 18, 19 , 20, 22, 23, 24, 31, 32 (except that portion in Payette County), and 32A. Units 33 and 39 are closed to fall hunting.
- November 21, 2010 through December 31, 2010 and November 21, 2011 through December 31, 2011. 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.

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 seasons and may be used during fall general or fall controlled hunt seasons.

Special Unit Tag, limited to Idaho residents, 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. The waiting period for use of the extra tag has been eliminated.

Shooting Hours

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

Wild Turkey Controlled Hunt Seasons — Spring 2010 - 2011

⇩ Use these numbers on your controlled hunt application.		Refer to Big Game Rules for unit boundary descriptions or this web site: http://fishandgame.idaho.gov/cms/hunt/rules/bg/units.pdf. 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	938-1: All of Unit 38 and that portion of Unit 32 in Payette County.	April 15-May 25 Access is Limited	75
9002	938-2: All of Unit 38 and that portion of Unit 32 in Payette County.	Youth Hunt April 8 - May 25, 2010 April 8 - May 25, 2011 Access is Limited	60
9003	950-1: 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*
9004	950-2: 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*
9005	950-3: 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, 2010 April 8 - May 25, 2011	50*
9006	954-1: All of Unit 54.	Youth Hunt April 8 - May 25, 2010 April 8 - May 25, 2011	30
9007	954-2: All of Unit 54.	April 15 - May 5	24
9008	954-3: All of Unit 54.	May 6 - May 25	24
9009	968A-1: All of Unit 68A.	Youth Hunt April 8 - May 25, 2010 April 8 - May 25, 2011	15*
9010	968A-2: All of Unit 68A.	April 15 - April 30	15*
9011	968A-3: All of Unit 68A.	May 1 - May 25	15*
9012	971-1: All of Unit 71.	Youth Hunt April 8 - May 25, 2010 April 8 - May 25, 2011	75
9013	971-2: All of Unit 71.	April 15 - April 30	75
9014	971-3: All of Unit 71.	May 1 - May 25	75
9015	936B-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
9016	936B-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, 2010 April 8 - May 25, 2011 Access is Limited *(Recommend do not apply unless you have access to private property)*	5

See page 49 and 50 for areas closed to turkey hunting, ie., federal refuges, bird refuges, active bald eagle nests, etc.

Wild Turkey Controlled Hunt Seasons — Fall 2010 - 2011

⇩ Use these numbers on your controlled hunt application.

Refer to Big Game Rules for unit boundary descriptions or this web site: http://fishandgame.idaho.gov/cms/hunt/rules/bg/units.pdf. 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
9017	971-4: All of Unit 71	September 15 - December 31	100
9018	971-5: All of Unit 71	Youth Hunt September 15 - December 31	100
9019	950-4: 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
9020	954-1: That portion of Unit 54 south of Trapper Creek outside the National Forest boundary and that portion of Unit 55 south of Oakley and west of the Birch Creek - Junction Valley Road.	September 15 - December 31	50

Turkey Hunting Safety and Ethics

1. **Positively identify your target.**
2. **Assume every noise and movement is another hunter.**
3. **Never stalk a turkey or turkey sound.**
4. **Don't wear red, white, or blue.**
5. **Protect your back.**
6. **Shout "Stop" to alert approaching hunters.**
7. **Make your position known to other hunters.**
8. **Preselect a zone of fire.**
9. **Choose safe, ethical hunting companions.**
10. **Practice courtesy and self-control at all times.**

All ethical wild turkey hunters support a series of rules that make wild turkey hunting the quality experience it can be. Following these rules will not only help maintain healthy flocks of wild turkeys in Idaho, but will also add to the challenge and excitement that is wild turkey hunting.

- **Do not disturb nesting hen turkeys or their nests.**
- **Though legal (during legal hours) to shoot a tom out of a roost tree, this practice is unacceptable among most sportsmen.**
- **If you hear another hunter calling a bird, allow that hunter to continue undisturbed and leave the area.**
- **Ask first to hunt on private land.**

Extended Falconry Seasons, Bag and Possession Limit				
Species	**Open and Closed Areas**	**Season Dates**	**Daily Bag Limit**	**Possession Limit (After 1st day of season)**
Pheasants (All varieties)	All counties or parts of counties which have a firearms season are open to hunting by falconry.	August 15, 2010 to the opening of the firearms season and from the close of firearms season through March 15, 2011. August 15, 2011 to the opening of the firearms season and from the close of the firearms season through March 15, 2012	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.	6 of any kind and shall not include more than 2 pheasant (male or female), 2 sage-grouse
Gray partridge, chukar, partridge, bobwhite quail, California quail	Same as above.	Same as above.		
Forest grouse, Dusky (blue), ruffed & spruce)	Same as above.	Same as above.		
Sage-grouse	Same as above.	Same as above.		
Sharp-tailed grouse	Same as above.	Same as above.		
Crows	Open statewide.	October 1, 2010 - January 31, 2011 October 1, 2011 - January 31, 2012	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, 2010 - August 31, 2010 March 1, 2011 - August 31, 2011	2 of any kind	4 of any kind
Snowshoe hares	Open statewide.	April 1, 2010 - August 31, 2010 April 1, 2011 - August 31, 2011		

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 pages 49 and 50.

Seasons, Bag and Possession Limits - Statewide		
Species	Season	Daily Bag and Possession Limits
American Crow	October 1, 2010 - January 31, 2011	NO LIMITS
	October 1, 2011 - January 31, 2012	

Submitted by:

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Approved by: IDAHO DEPARTMENT OF FISH AND GAME

Brad Compton, Asst. Chief
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Jeff Gould, Chief
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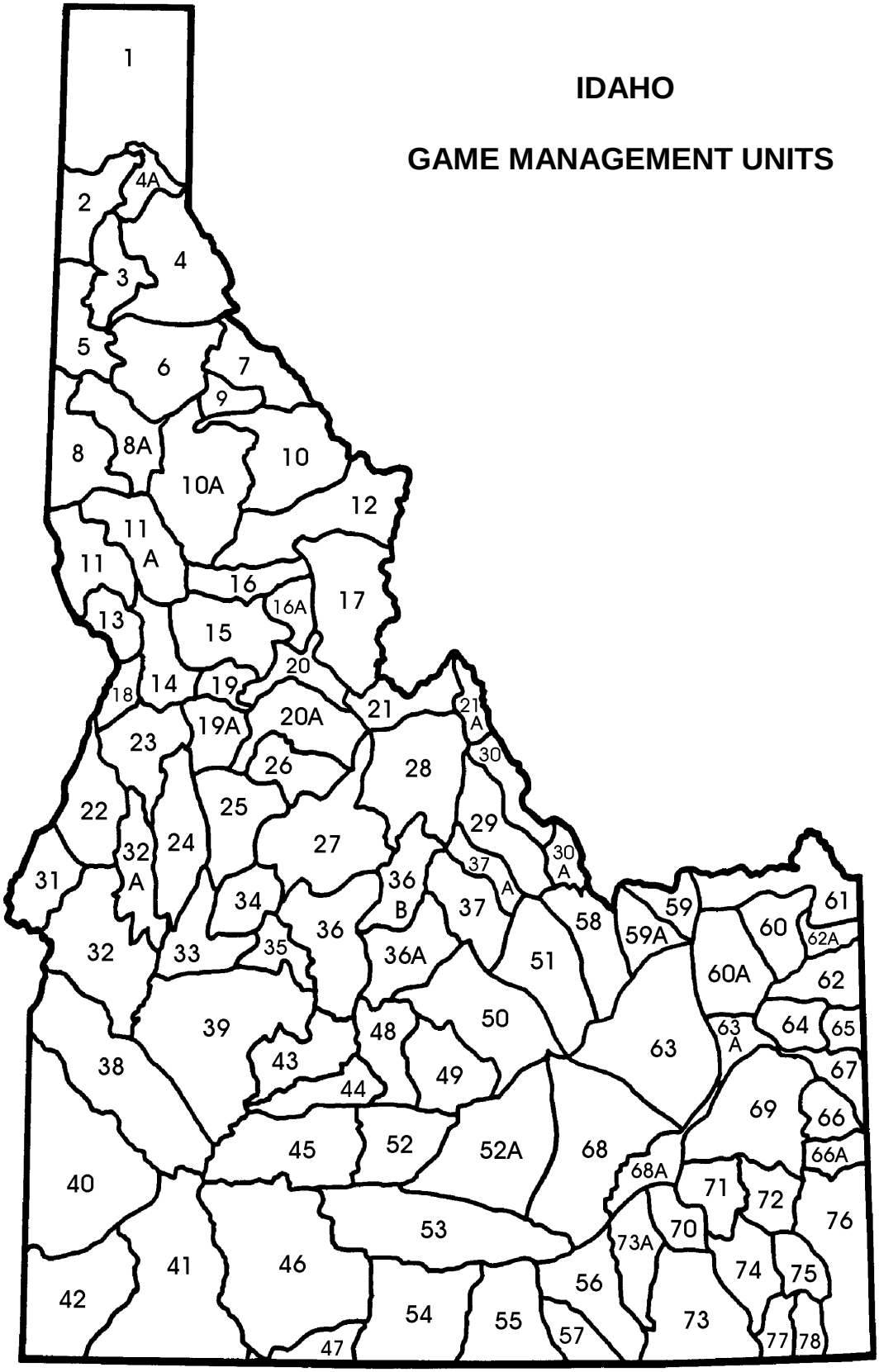
IDAHO

GAME MANAGEMENT UNITS



FEDERAL AID IN WILDLIFE RESTORATION

The Federal Aid in Wildlife Restoration Program consists of funds from a 10% to 11% manufacturer's excise tax collected from the sale of handguns, sporting rifles, shotguns, ammunition, and archery equipment. The Federal Aid program then allots the funds back to states through a formula based on each state's geographic area and the number of paid hunting license holders in the state. The Idaho Department of Fish and Game uses the funds to help restore, conserve, manage, and enhance wild birds and mammals for the public benefit. These funds are also used to educate hunters to develop the skills, knowledge, and attitudes necessary to be responsible, ethical hunters. Seventy-five percent of the funds for this project are from Federal Aid. The other 25% comes from license-generated funds.