

**IDAHO DEPARTMENT OF FISH AND GAME**

**Ed Schriever, Director**

**SFY2019 Statewide Report**



**UPLAND GAME**

July 1, 2018 to June 30, 2019

Prepared by:

Micah Ellstrom..... Panhandle Region  
Clay Hickey ..... Clearwater Region  
Rick Ward, Michelle Commons-Kemner ..... Southwest Region  
Mike McDonald ..... Magic Valley Region  
Zach Lockyer ..... Southeast Region  
Curtis Hendricks, ..... Upper Snake Region  
Dennis Newman..... Salmon Region  
David Smith ..... Wildlife Bureau

Compiled and edited by: Jeffrey M. Knetter, Upland Game & Waterfowl Staff Biologist

2020  
Boise, Idaho

Idaho Department of Fish and Game (IDFG) adheres to all applicable state and federal laws and regulations related to discrimination on the basis of race, color, national origin, age, gender, disability or veteran's status. If you feel you have been discriminated against in any program, activity, or facility of IDFG, or if you desire further information, please write to: Idaho Department of Fish and Game, PO Box 25, Boise, ID 83707 or US Fish and Wildlife Service, Division of Wildlife and Sport Fish Restoration Program, 5275 Leesburg Pike, MS: WSFR, Falls Church, VA 22041-3803, Telephone: (703) 358-2156. This publication will be made available in alternative formats upon request. Please contact IDFG for assistance.

Please note that IDFG databases containing this information are dynamic. Records are added, deleted, and/or edited on a frequent basis. This information was current as of the date of this report. Raw data do not have the benefit of interpretation or synthesis by IDFG.

IDFG requests that you direct any requests for this information to us rather than forwarding this information to third parties.

## TABLE OF CONTENTS

STATEWIDE.....	1
SUMMARY .....	1
PHEASANT.....	2
QUAIL .....	3
FOREST GROUSE.....	4
SAGE-GROUSE.....	5
SHARP-TAILED GROUSE.....	7
CHUKAR.....	8
GRAY PARTRIDGE.....	9
WILD TURKEY.....	10
RABBITS AND HARES.....	11
LITERATURE CITED.....	12
PANHANDLE REGION.....	21
PHEASANT.....	21
QUAIL .....	21
FOREST GROUSE.....	22
GRAY PARTRIDGE.....	22
WILD TURKEY.....	23
SNOWSHOE HARE .....	23
CLEARWATER REGION.....	28
PHEASANT.....	28
CALIFORNIA QUAIL.....	29
MOUNTAIN QUAIL .....	30
FOREST GROUSE.....	30
SHARP-TAILED GROUSE.....	31
CHUKAR.....	31
GRAY PARTRIDGE.....	32
WILD TURKEY.....	32
COTTONTAIL RABBIT.....	34
SNOWSHOE HARE .....	34

**TABLE OF CONTENTS (Continued)**

SOUTHWEST REGION .....42

    PHEASANT .....42

    QUAIL .....43

    FOREST GROUSE.....44

    SAGE-GROUSE.....44

    SHARP-TAILED GROUSE.....45

    CHUKAR.....46

    GRAY PARTRIDGE.....47

    WILD TURKEY.....47

    RABBITS AND HARES .....49

MAGIC VALLEY REGION .....59

    PHEASANT .....59

    QUAIL .....60

    FOREST GROUSE.....61

    SAGE-GROUSE.....61

    SHARP-TAILED GROUSE.....63

    CHUKAR.....64

    GRAY PARTRIDGE.....64

    WILD TURKEY.....64

    COTTONTAIL RABBITS AND SNOWSHOE HARES .....65

SOUTHEAST REGION .....73

    PHEASANT .....73

    FOREST GROUSE.....74

    SAGE-GROUSE.....74

    SHARP-TAILED GROUSE.....76

    CHUKAR.....77

    GRAY PARTRIDGE.....78

    RABBITS.....80

UPPER SNAKE REGION.....90

    PHEASANT.....90

    FOREST GROUSE.....91

**TABLE OF CONTENTS (Continued)**

SAGE-GROUSE.....92  
SHARP-TAILED GROUSE.....94  
GRAY PARTRIDGE.....96  
WILD TURKEY.....97  
RABBITS AND HARES.....98  
SALMON REGION.....107  
    PHEASANT.....107  
    QUAIL.....108  
    FOREST GROUSE.....108  
    SAGE-GROUSE.....109  
    CHUKAR.....111  
    WILD TURKEY.....113  
    RABBITS AND HARES.....114  
APPENDIX A.....121

## LIST OF TABLES

### STATEWIDE

Table 1. Estimated upland game bird harvest in Idaho as determined by random telephone survey of license buyers, 2009-present. ....	13
Table 2. Season framework, estimated pheasant hunter numbers, and harvest in Idaho, 2009-present.....	13
Table 3. Season framework, estimated quail hunter numbers, and harvest in Idaho, 2009-present. ....	14
Table 4. Season framework, estimated forest grouse hunter numbers, and harvest in Idaho, 2009-present.....	14
Table 5. Idaho hunting season and bag-limit guidelines for sage-grouse populations <sup>a</sup> . ....	15
Table 6. Season framework, estimated greater sage-grouse hunter numbers, and harvest in Idaho, 2009-present.....	15
Table 7. Season framework, estimated sharp-tailed grouse hunter numbers, and harvest in Idaho, 2009-present.....	16
Table 8. Season framework, estimated chukar hunter numbers, and harvest in Idaho, 2009-present. ....	16
Table 9. Season framework, estimated gray partridge hunter numbers, and harvest in Idaho, 2009-present.....	17
Table 10. Season framework and estimated turkey harvest in Idaho, 2008-present.....	18
Table 11. Turkey translocation history for Idaho, 2008-present. ....	19
Table 12. Estimated cottontail rabbit and snowshoe hare harvest in Idaho, 2009-present. ....	20
Table 1. Estimated pheasant harvest, Panhandle Region, 2009-present. ....	24
Table 2. Estimated quail harvest, Panhandle Region, 2009-present. ....	24
Table 3. Estimated forest grouse harvest, Panhandle Region, 2009-present. ....	25
Table 4. Relative contribution of grouse species to the forest grouse harvest in the Panhandle Region, 2018. ....	25
Table 5. Estimated gray partridge harvest, Panhandle Region, 2009-present. ....	25
Table 6. Estimated turkey harvest, Panhandle Region, 2009-present.....	26
Table 7. Estimated snowshoe hare harvest, Panhandle Region, 2009-present. ....	27
Table 1. Pheasant population characteristics and production, Clearwater Region, 2009-present. ....	35
Table 2. Estimated pheasant harvest, Clearwater Region, 2009-present.....	35
Table 3. Estimated quail harvest, Clearwater Region, 2009-present.....	36
Table 4. Estimated forest grouse harvest, Clearwater Region, 2009-present. ....	36

## LIST OF TABLES (Continued)

Table 5. Helicopter surveys of chukar in GMU 11, Clearwater Region, 2000-present <sup>d</sup> . .....	37
Table 6. Estimated chukar harvest, Clearwater Region, 2009-present. ....	38
Table 7. Estimated gray partridge harvest, Clearwater Region, 2009-present. ....	38
Table 8. Estimated turkey harvest by GMU, Clearwater Region, 2009-present. ....	39
Table 9. Turkey translocation history, Clearwater Region, 2004-present. ....	40
Table 10. Estimated cottontail rabbit and snowshoe hare harvest, Clearwater Region, 2009-present. ....	41
Table 1. Pheasant population characteristics and production, Southwest Region, 2009-present. ....	51
Table 2. Estimated pheasant harvest, Southwest Region, 2009-present. ....	51
Table 3. Quail population characteristics and estimated harvest, Southwest Region, 2009-present. ....	52
Table 4. Estimated forest grouse harvest, Southwest Region, 2009-present. ....	52
Table 5. Forest grouse production in the Southwest Region based on wing collection, 2009-present. ....	53
Table 6. Southwest Region sage-grouse lek route data, 2009-present. ....	53
Table 7. Estimated greater sage-grouse harvest, Southwest Region, 2009-present. ....	54
Table 8. Greater sage-grouse production based on wing collections, Southwest Region, 2009-present. ....	54
Table 9. Trends in sharp-tailed grouse lek counts, Hixon Sharptail Preserve, Southwest Region, 2009-present. ....	55
Table 10. Estimated chukar harvest, Southwest Region, 2009-present. ....	55
Table 11. Gray partridge population characteristics and estimated harvest, Southwest Region, 2009-present. ....	56
Table 12. Estimated turkey harvest, Southwest Region, 2009-present. ....	57
Table 13. Turkey translocation history into the Southwest Region, 2005-2010. ....	58
Table 14. Estimated cottontail rabbit and snowshoe hare harvest, Southwest Region, 2009-present. ....	58
Table 1. Estimated pheasant harvest, Magic Valley Region, 2009-present. ....	67
Table 2. California quail population characteristics and estimated harvest, Magic Valley Region, 2009-present. ....	67
Table 3. Trend of upland game species harvested per 10 hunters checked at stations on opening weekend of the sage-grouse, quail, and partridge season, Magic Valley Region, 2009-present. ....	68

## LIST OF TABLES (Continued)

Table 4. Estimated forest grouse harvest, Magic Valley Region, 2009-present.....	68
Table 5. Estimated Greater sage-grouse harvest, Magic Valley Region, 2009-present. ....	69
Table 6. Estimated chukar harvest, Magic Valley Region, 2009-present.....	69
Table 7. Gray partridge population characteristics and estimated harvest, Magic Valley Region, 2009-present. ....	70
Table 8. Turkey translocation history for the Magic Valley Region, 1982-2009.....	70
Table 9. Estimated turkey harvest, Magic Valley Region, 2009-present. ....	71
Table 10. Estimated cottontail rabbit and snowshoe hare harvest, Magic Valley Region, 2009-present.....	72
Table 1. Estimated pheasant harvest, Southeast Region, 2009-present.....	81
Table 2. Forest grouse production based on wing collection, Southeast Region, 2009-present. ....	81
Table 3. Estimated forest grouse harvest, Southeast Region, 2009-present. ....	82
Table 4. Maximum number of male greater sage-grouse counted on lek routes in Bingham, Power, and Oneida counties, Southeast Region, 2010-present.....	82
Table 5. Maximum number of male greater sage-grouse counted on lek routes in Butte and Blaine counties, Southeast Region, 2010-present.....	83
Table 6. Maximum number of male greater sage-grouse counted on lek routes in Bear Lake and Caribou counties, Southeast Region, 2010-present.....	83
Table 7. Greater sage-grouse production based on wing collections, Southeast Region, 2009-present.....	84
Table 8. Estimated greater sage-grouse harvest, Southeast Region, 2009-present.....	84
Table 9. Sharp-tailed grouse production based on wing collections, Southeast Region, 2009-present.....	85
Table 10. Maximum number of sharp-tailed grouse counted on lek routes in Oneida, Power, and Bannock counties, Southeast Region, 2009-2018.....	85
Table 11. Estimated sharp-tailed grouse harvest Greater Curlew area, Southeast Region, 2009-present.....	86
Table 12. Estimated sharp-tailed grouse harvest, Southeast Region, 2009-present. ....	87
Table 13. Estimated gray and chukar harvest, Southeast Region, 2009-present. ....	87
Table 14. Estimated turkey harvest, Southeast Region, 2009-present.....	88
Table 15. Turkey translocation history, Southeast Region, 1982-2017.....	89
Table 16. Estimated cottontail rabbit harvest, Southeast Region, 2009-present. ....	89
Table 1. Estimated pheasant harvest, Upper Snake Region, 2009-present.....	100



## LIST OF TABLES (Continued)

Table 2. Estimated forest grouse harvest, Upper Snake Region, 2009-present. ....	100
Table 3. Male greater sage-grouse counted on lek routes, Upper Snake Region, 2010-present. ....	101
Table 4. Greater sage-grouse production based on wing collections, Upper Snake Region, 2009-present. ....	102
Table 5. Estimated greater sage-grouse harvest, Upper Snake Region, 2009-present. ....	102
Table 6. Sharp-tailed grouse counted on lek routes, Upper Snake Region, 2010-present. ....	103
Table 7. Sharp-tailed grouse production based on wing collections <sup>a</sup> , Upper Snake Region, 2009-present. ....	103
Table 8. Estimated sharp-tailed grouse harvest, Upper Snake Region, 2009-present. ....	104
Table 9. Estimated chukar harvest, Upper Snake Region, 2009-2016. ....	104
Table 10. Estimated gray partridge harvest, Upper Snake Region, 2009-present. ....	105
Table 11. Estimated spring turkey harvest, Upper Snake Region, 2010-present. ....	105
Table 12. Estimated fall turkey harvest, Upper Snake Region, 2009 <sup>a</sup> -present. ....	106
Table 13. Turkey translocation history, Upper Snake Region, 1984-2002. ....	106
Table 14. Estimated cottontail rabbit and snowshoe hare harvest, Upper Snake Region, 2009-present. ....	106
Table 1. Estimated pheasant harvest, Salmon Region, 2009-present. ....	116
Table 2. Estimated forest grouse harvest, Salmon Region, 2009-present. ....	116
Table 3. Male greater sage-grouse counted on Lower Lemhi lek route, Salmon Region, 2010-present. ....	117
Table 4. Estimated greater sage-grouse harvest, Salmon Region, 2009-present. ....	117
Table 5. Estimated chukar harvest, Salmon Region, 2009-present. ....	118
Table 6. Estimated gray partridge harvest, Salmon Region, 2009-present. ....	118
Table 7. Turkey translocation history, Salmon Region, 1983-2016. ....	119
Table 8. Spring turkey harvest, Salmon Region, 2019. ....	119
Table 9. Estimated cottontail harvest, Salmon Region, 2009-present. ....	120

**LIST OF FIGURES**

Figure 1. Average number of male sage-grouse per lek along 13 lek routes in the Southwest Region. West Nile Virus (WNV) emerged during summer 2006 followed by unusually dry spring and summer 2007.....50

Figure 2. Total number of male sharp-tailed grouse on 4 leks at Hixon Sharptail Preserve, Washington County, Idaho, 2000-2018.....50

Figure 1. Total male greater sage-grouse counted on 23 lek routes, Magic Valley Region, 2002-present.....66

Figure 1. Male attendance on four representative leks Salmon Region, 1962 - present.....115

# STATEWIDE REPORT

## POPULATION, HARVEST, AND MANAGEMENT

### STATEWIDE

#### Summary

Idaho Department of Fish and Game (IDFG) followed the 1991-1995 Upland Game Species Management Plan 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 IDFG 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, hunter check stations, and wing barrel harvest data. Each region collects data using various methods based on regional bird densities and sampling constraints. Statewide, harvest surveys assess overall hunter activity and harvest of upland game species. From 1996-2000, telephone surveys estimated statewide, rather than regional trends (except turkey), due to budget constraints. Since 2000, a separate survey (mail and telephone) has been conducted for sage- and sharp-tailed grouse to improve harvest estimates for these species that have been considered for listing under the federal Endangered Species Act (ESA). Starting in 2001, harvest surveys (mail and telephone) were expanded to collect regional data for all upland game species.

In FY2019 (fall 2018-spring 2019 seasons), approximately 46,000 resident hunting license buyers hunted upland game and approximately 10,100 non-resident hunting license buyers hunted upland game.

In FY2019, estimated harvest of most upland game bird species was similar to FY2018 estimates. (Table 1).

#### **Climatic Conditions**

Idaho is an extremely geographically diverse state and weather patterns can vary dramatically. During winter 2017-2018, snowfall was below normal in southern Idaho, while it was above normal in north Idaho. Temperatures were slightly above normal across Idaho (Joint Agricultural Weather Facility 2018a). By mid-summer, precipitation since 1 January was still above normal in north Idaho, near normal in southwest Idaho, and below normal in eastern Idaho. The month of June was slightly warmer and drier than normal in 2018 (Joint Agricultural Weather Facility 2018b).

#### **Trapping and Translocation**

No trapping or translocation activities took place during this study period for pheasant (*Phasianus colchicus*), forest grouse (*Tympanuchus phasianellus*), chukar (*Alectoris chukar*),

gray partridge (*Perdix perdix*), or Columbian sharp-tailed grouse (*Tympanuchus phasianellus columbianus*). In response to a depredation event California quail (*Callipepla californica*) were trapped within the Southwest Region and translocated to Texas through a research project conducted by the College of Agricultural Sciences and Natural Resources at Texas A&M University-Commerce.. To alleviate depredation concerns, wild turkey were trapped and transplanted to suitable habitat within the SoutheastRegion.

### **Management Studies**

Details on current upland game research are available in the annual IDFG 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 FY 2019, about 25 HIP upland game bird projects were implemented on 2,200 acres in Idaho. The IDFG has three employees working in Natural Resources Conservation Service (NRCS) county offices as Farm Bill Coordinators. The Coordinators provide technical assistance to private landowners interested in improving fish and wildlife habitat by implementing Farm Bill conservation practices.

### **Season Framework**

During the fall 2018 season, 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 three times the daily bag, respectively. 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) Upland Game Bird permit remained at 6. The permit cost was \$23.75 for the 2018 seasons. In 2010, shooting hours on WMAs in Area 3 were changed from one-half hour before sunrise to 10 a.m. to reduce conflicts with waterfowl hunters, and to allow additional time for pheasant stocking. These shooting hours were implemented at all WMAs where pheasants were stocked in 2016. Youth-only pheasant seasons were held October 6-12, 2018.

### **Population Surveys**

Roadside counts are conducted in the Clearwater and Southwest regions. During 2018, the number of pheasants observed per mile increased in the Southwest Region, but decreased in the Clearwater Region.

### **Harvest Characteristics**

In 2018, approximately 11,800 hunters harvested 37,300 pheasants (Table 2). The estimated harvest was down 5% from 39,100 in 2017. The average number of birds harvested per hunter day (Table 2) in 2018 (0.68) was similar to 2017 levels (0.71). The Southwest Region had the highest harvest where approximately 4,600 hunters harvested an estimated 15,000 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. In 2018, spring and early summer conditions were warmer and drier than average across southern Idaho, but warmer and wetter in northern Idaho.

### **Depredations**

Pheasants cause very 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. Idaho 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 IDFG has three employees working in NRCS county offices as Farm Bill Coordinators. The Coordinators provide technical assistance to private landowners interested in improving fish and wildlife habitat by implementing Farm Bill conservation practices. Coordinators are working on CRP/SAFE/CREP lands and other private lands to benefit pheasants. The IDFG has also partnered with Pheasants Forever, to locate a shared biologist within the Pocatello NRCS field office. The primary focus of this position is to work with landowners to implement federal farm bill programs that improve habitat for mule deer and upland gamebirds.

## **Quail**

### **Abstract**

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

### **Season Framework**

During the fall 2018 season, the opening date remained unchanged; the season opener was on the third Saturday in September. The January 31 closing date in the Panhandle, Clearwater, and Southwest regions has remained unchanged. Bag and possession limits for quail remained unchanged at 10 and three times the daily bag (Appendix A).

### **Population Surveys**

Quail are counted during August brood routes in the Clearwater and Southwest regions. The number of birds observed per mile of route increased in both the Clearwater Southwest regions

from 2017 to 2018. Numbers were below the most recent 10-year average in the Clearwater Region, but higher in the Southwest Region.

### **Harvest Characteristics**

During the 2018 season, approximately 5,700 hunters harvested 58,100 quail. While estimated harvest decreased slightly from 61,000 in 2017, average number of birds harvested per hunter (Table 3) increased to 10.2 in 2018, from 8.8 in 2017. The Southwest Region had the highest harvest where approximately 3,800 hunters harvested an estimated 39,100 quail.

Quail were checked at check stations incidental to other activities.

### **Habitat Conditions**

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

### **Management 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. Idaho has an approved CREP that may retire up to 50,000 acres of irrigated farmland in south-central and eastern Idaho. These 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 2017 to 2018 (Table 1). Management activities directed specifically toward forest grouse habitat is minimal. However, IDFG's Mule Deer Initiative (MDI) improves forest grouse habitat, especially ruffed grouse habitat, through aspen rejuvenation projects. .

### **Season Framework**

During 2018, forest grouse seasons remained unchanged, with a season opener on August 30 (Appendix A). The season runs through December 31 in most of the state, but runs through January 31 in the Panhandle Region. Bag and possession limits remained unchanged at 4, and three times the daily bag limit, respectively, statewide.

### **Population Surveys**

Forest grouse population surveys are not conducted in Idaho.

### **Harvest Characteristics**

Forest grouse harvest (Table 1) increased from 59,400 birds in 2017 to 68,600 in 2018. The number of hunters (20,900) that pursued forest grouse (Table 4) was slightly lower than 2017 levels (21,800). The Clearwater and Southwest regions had the highest level of forest grouse

harvest where approximately 3,300 and 6,300 hunters, harvested an estimated 14,500 and 17,100 forest grouse respectively.

In 2018, harvest data for forest grouse was collected by species as well: ruffed grouse, dusky (blue) grouse, and spruce grouse. Individuals unable to identify forest grouse by species reported harvest as “unknown forest grouse.” Ruffed grouse hunters (10,700) spent more days hunting (72,400) and harvested more birds (41,400) than dusky (blue) grouse hunters (7,400 hunters, 45,100 days, and 22,700 birds harvested) or spruce grouse hunters (1,500 hunters, 8,000 days, and 2,300 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 IDFG 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 assists private landowners in eastern Idaho to improve aspen stands for mule deer habitat. These aspen improvement projects will likely improve ruffed grouse habitat as well.

### **Management Implications**

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

## **Sage-grouse**

### **Abstract**

The IDFG uses lek routes to monitor sage-grouse population trends and set hunting seasons, following guidelines in the 2006 *Conservation Plan for the Greater Sage-grouse in Idaho*. Lek monitoring has increased since 2015 to obtain improved information on all leks and better address population management recommendations in Governor Otter’s 2015 Executive Order and updated Federal land-use plans. The IDFG, partner State agencies, and Federal land-management agencies continue to focus on habitat restoration efforts to address the primary threats of wildfire and invasive annual grasses.

### **Season Framework**

Since 2008, the IDFG has followed 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 January, the Idaho Fish and Game Commission annually sets sage-grouse hunting seasons in August. This allows biologists sufficient time to analyze lek data and information regarding annual wildfires and West Nile Virus (WNV) impacts. Department staff summarize lek route data by sage-grouse Reporting Zone and compares data with 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,

recommendations are brought forward to the Commission, who sets the season structure. The IDFG then publishes and distributes the *Sage-grouse Seasons and Rules* leaflet.

Using the guidelines, there has been a 7-day season with a 1 bird daily-bag limit since 2010. Lek data conducted during spring 2018 also resulted in a restrictive season (7-day season, 1 bird daily bag limit) during fall 2018, except for designated closed areas. The Commission closed a large area in Zone 6 in the Upper Snake due to the Grassy Ridge Fire. See Appendix A for the 2018 sage-grouse regulations and Hunt Area boundary descriptions.

### **Population Surveys**

The IDFG has been counting leks on standardized lek routes for many years. A lek route is a count of male sage-grouse on a group of leks that are relatively close and represent part or all of a single breeding population. About 25% of the known leks in Idaho are counted on 1 of 79 lek routes. Historically, other leks were surveyed on the ground or by helicopter as time and funding allowed. In 2015, the IDFG initiated a survey sampling protocol to better monitor sage-grouse populations statewide, in accordance with Governor C.L. “Butch” Otter’s *Executive Order No. 2015-04 Adopting Idaho’s Sage-grouse Management Plan*. In spring 2018 Department staff surveyed 1,466 leks; of those 693 were active, 697 were inactive, 109 had an unknown status, and 7 were potential new leks

### **Harvest Characteristics**

The IDFG 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. An estimated 2,100 hunters harvested 2,000 sage-grouse in 2018 (Tables 1 and 6).

Several check stations are operated during opening weekend of the sage-grouse season to gather information on hunter participation and success, and to collect wings from harvested birds. The IDFG also collects wings in wing barrels and through a mail-in wing program; 924 wings were collected in 2018. In general, the sample size of wings has decreased in recent years due to shortened seasons.

### **Habitat Conditions**

Habitat concerns continue to be a major focus for the IDFG and federal land management agencies. In 2018, several fires impacted sage-grouse habitat. In particular, the 110,000 acre Grassy Ridge Fire in the Upper Snake impacted Priority and Important Habitat Management Areas. The Sharps Fire in the Magic Valley and the Cat Fire in the Southwest Region both impacted Important Habitat Management Areas..

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 infrastructure development projects.

The Idaho Sage-grouse Actions Team was formed in 2015 to implement conservation actions identified within Governor Otter’s Executive Order. This multi-agency team works collaboratively to prioritize and fund actions, using State funds approved by the Idaho Legislature and matching fund from federal and private partners. Priorities for funding include



helping equip Rangeland Fire Protection Associations; building strategic fuel breaks to slow the spread of wildfire; restoring areas that have been degraded by wildfire, juniper expansion, and invasive annual grasses; restoring and improving late brood-rearing habitat; and enhancing sage-grouse population monitoring.

In State FY19, the Actions Team obligated funds to 19 worthwhile projects totaling almost \$650K. Habitat projects accomplished in FY19 include:

- 6,272 acres of fire rehabilitation on state and private lands
- 3,981 acres of juniper removal on state and private lands
- 4 miles of riparian improvements on private lands
- 946 acres of annual grass treatments on private lands

The IDFG contributed additional funds for fire rehabilitation projects on private and state land.

### **Policy and Management Implications**

In July 2006, the *Conservation Plan for the Greater Sage-grouse in Idaho* was completed and signed by a diverse group of cooperators (Idaho Sage-grouse Advisory Committee 2006). This plan provides the management framework for sage-grouse in Idaho, which was updated in the *Federal Alternative of Governor C.L. “Butch” Otter for Greater Sage-grouse Management in Idaho* in 2012. The Governor’s Alternative was submitted in the BLM’s EIS process for land use plan amendments and was a co-preferred alternative in the 2015 Record of Decision. In 2015, Governor Otter signed Executive Order No. 2015-04, directing all state agencies to adopt the Governor’s Alternative.

## **Sharp-tailed Grouse**

### **Abstract**

The largest remaining Columbian sharp-tailed grouse (*Tympanuchus phasianellus columbianus*; CSTG) populations occur in eastern Idaho. They have received substantial benefits from CRP grassland habitat since the late 1980s. Lek routes and harvest estimates are used to monitor sharp-tailed grouse population trends. 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; however, translocation efforts did not occur during this reporting period.

### **Season Framework**

The 2018 season frameworks remained unchanged (Appendix A) with a 31-day season from October 1-31, and bag and possession limits of 2, and three times the daily bag limit, respectively. This season structure has been in place since 2000.

### **Population Surveys**

Lek counts were conducted in the Southwest, Magic Valley, Southeast, and Upper Snake regions. Grouse wings were collected at wing barrels and from hunters through a mail-in wing

collection program; 543 wings were collected during fall 2018. Juvenile-to-adult ratios obtained from wing data decreased in both the Southeast and Upper Snake regions from 2017 to 2018.

### **Harvest Characteristics**

Beginning in 2000, CSTG hunters were required to purchase a sage/sharp-tailed grouse hunting validation. This requirement provides a means to collect better harvest estimates from a sample of CSTG hunters, through a telephone survey. In 2018, approximately 1,200 hunters harvested 2,700 sharp-tailed grouse (Table 1). The estimated number of hunters and harvest in 2018 were similar to those reported in 2017 (Table 7). Number of days spent sharp-tailed grouse hunting in 2018 (3,600) were similar to 2017 (3,700) levels.

### **Habitat Conditions**

The CRP program continues to provide habitat for CSTG in Idaho. IDFG continues to work with landowners to plant enhanced grass/forb mixes and improve stands by planting forbs, legumes, and shrubs in existing/reenrolled CRP land throughout the state. Many of the projects are in sharp-tailed grouse range and will improve grouse habitat. The IDFG had an allocation 147,300 acres to enroll in 2019. Efforts to maintain or increase habitat for CTSG in Idaho are ongoing.

### **Trapping and Translocation**

From 1991-2017, IDFG trapped CSTG in southeastern Idaho for translocation to suitable habitats. During 1991-2012, 1,405 CSTG (851 males, 554 females) were trapped in southeast Idaho for reintroduction projects in Idaho, Oregon, Washington, and Nevada. Six hundred six grouse were released in the Shoshone Basin and House Creek areas, Twin Falls County, Idaho, and 765 birds were provided to the other states. During 2013-2017, IDFG translocated 215 CSTG from southeast Idaho to Bull Run Basin, in north-central Nevada, as part of a range expansion effort.

### **Management Implications**

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

## **Chukar**

### **Abstract**

Chukar are an important resource for upland game bird hunters in Idaho. The IDFG primarily uses harvest estimates to monitor chukar population trends. Chukar harvest remains above very low levels observed in 2014. Management activities directed specifically toward chukar habitat is minimal.

### **Season Framework**

The season structure for chukar has remained unchanged since 2012, with an opener on the third Saturday in September and a January 31 closure. The bag and possession limits are 8 and three times the daily bag limit, respectively (Appendix A). The chukar season runs concurrent with quail and gray partridge seasons.

## **Population Surveys**

Aerial chukar counts were discontinued in 2011.

## **Harvest Characteristics**

During the 2018-19 season, hunters harvested an estimated 51,100 chukars (Table 1). The number of hunters (Table 8) during 2018 (8,500) increased from 2017 (6,400). Hunters spent more days hunting (45,600 vs. 37,500), but harvested slightly fewer birds (51,100 vs. 51,600) in 2018 than in 2017. Southwest Region hunters (5,000) harvested overwhelmingly more chukars (31,800; 62% of statewide harvest) than any other region.

## **Habitat Conditions**

During winter 2017-2018, snowfall was below normal in southern Idaho, but above normal in northern Idaho; temperatures were above normal across the state (Joint Agricultural Weather Facility 2018a). By mid-summer, precipitation since January 1 was still above normal in northern Idaho, near normal in southwest Idaho, and below normal in eastern Idaho. The month of June was slightly warmer and drier than normal in 2018 (Joint Agricultural Weather Facility 2018b). Most chukar habitat occurs on public lands and is largely driven by weather, livestock grazing, or wildfire.

## **Management Implications**

Annual chukar populations, like most upland game, are greatly influenced by weather conditions during nesting and brood-rearing. Current season lengths and bag and possession limits apparently do not need to be reduced for chukar during periods of population lows. Density-dependent hunting pressure is well documented in upland game populations (George et al. 1980, Vance and Ellis 1972, Kabat and Thompson 1963, Galliziolli and Swank 1958, Bennett 1951). In fact, Robinson et al. (2009) reported hunter harvest accounted for only 8% of documented chukar mortality in Utah.

## **Gray Partridge**

### **Abstract**

Gray partridge are an important resource for upland game bird hunters in Idaho. The IDFG primarily uses harvest estimates to monitor gray partridge population trends. Estimated gray partridge harvest during the 2018-19 season was down from 2017 estimates (Table 9). Habitat Improvement Program and CRP efforts work to improve gray partridge habitat statewide.

### **Season Framework**

The season structure for gray partridge has remained unchanged since 2012, with an opener on the third Saturday in September and a January 31 closure. The bag and possession limits are 8 and three times the daily bag limit, respectively (Appendix A). The gray partridge season runs concurrent with chukar and quail 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 2018, hunters harvested an estimated 28,900 gray partridge (Table 1). More hunters (Table 9) pursued gray partridge during 2018 (5,400) than in 2017 (4,500). Hunters in the Southwest Region (2,500) harvested more gray partridge (12,700; 44% 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, habitat still remains 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.

During winter 2017-2018, snowfall was below normal in southern Idaho, but above normal in northern Idaho; temperatures were above normal across the state (Joint Agricultural Weather Facility 2018a). By mid-summer, precipitation since January 1 was still above normal in northern Idaho, near normal in southwest Idaho, and below normal in eastern Idaho. The month of June was slightly warmer and drier than normal in 2018 (Joint Agricultural Weather Facility 2018b). Most gray partridge habitat occurs on public lands and is largely driven 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. Idaho has an approved CREP that may retire up to 50,000 acres of irrigated farmland in south-central and eastern Idaho. These lands will be planted to conservation cover that should benefit gray partridge. The IDFG has three employees working in NRCS county offices as Farm Bill Coordinators. The Coordinators provide technical assistance to private landowners interested in improving fish and wildlife habitat by implementing Farm Bill conservation practices.

## **Wild Turkey**

### **Abstract**

In Idaho, most suitable wild turkey habitat is occupied by relatively stable wild turkey populations. Estimated harvest during 2018 seasons (spring and fall) was higher during both spring and fall hunts, than during 2017 seasons (Table 1). Turkeys are trapped and translocated during winter to address nuisance and depredation concerns.

### **Season Framework**

Spring general hunts were offered in the Panhandle, Clearwater, Southwest, and Southeast regions during 2018 (Appendix A). Spring controlled hunts were offered in the Southwest, Magic Valley, Southeast, Upper Snake, and Salmon regions. An early, seven-day general season

youth-only hunt was offered in Game Management Units (GMU) open to general season turkey hunting from April 8-14.

In fall, general season hunts were offered in the Panhandle, Clearwater, and Southeast regions. In addition, up to three Special Unit Tags were issued for use in GMUs 1, 2, 3, and 5 to curb the turkey population in the Panhandle Region. Controlled hunts were offered in the Southwest, Southeast and Upper Snake regions. The bag limit was six turkeys during the year with no more than two bearded turkeys per spring.

### **Population Surveys**

No formal surveys were conducted.

### **Harvest Characteristics**

Hunters harvested (Table 1) more turkeys during 2018 seasons (6,900) than during 2017 (4,900) seasons. Harvest surveys indicated 4,100 and 2,200 turkeys were harvested during general spring and fall hunts, respectively (Table 10). Hunters harvested 230 and 176 turkeys during spring and fall controlled hunts, respectively. Statewide harvest is concentrated in the Panhandle and Clearwater regions.

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

### **Trapping and Translocation**

Wild turkey were trapped in the Southeast Region, and transplanted to suitable habitat within the Southeast Region during this reporting period (Table 11).

### **Management Implications**

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

## **Rabbits and Hares**

### **Abstract**

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

### **Season Framework**

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

### **Harvest Characteristics**

During the 2018-19 season, approximately 1,000 hunters harvested 2,300 rabbits. An estimated 260 hunters harvested approximately 200 snowshoe hares. Hunter participation and harvest was

down significantly from 2017, but this is likely the result of a small sample size in the harvest survey (Table 12).

### **Management Implications**

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

### **Literature Cited**

- Bennett, R. 1951. Some aspects of Missouri quail and quail hunting, 1938-48. Missouri Conservation Commission Technical Bulletin No. 2.
- Gallizioli, S., and W. G. Swank. 1958. The effects of hunting on Gambel quail populations. Transactions of the North American Wildlife and Natural Resources Conference 23:305-319.
- George, R. R., J. B. Wooley, Jr., J. M. Kienzler, A. L. Farris, and A. H. Berner. 1980. Effect of hunting season length on ring-necked pheasant populations. Wildlife Society Bulletin 8:279-283.
- Joint Agricultural Weather Facility. 2018a. Weekly Weather and Crop Bulletin. Vol. 105, No. 12. URL: [https://downloads.usda.library.cornell.edu/usda-esmis/files/cj82k728n/wh246s420/7h149q13w/weather\\_weekly-03-20-2018.pdf](https://downloads.usda.library.cornell.edu/usda-esmis/files/cj82k728n/wh246s420/7h149q13w/weather_weekly-03-20-2018.pdf)
- Joint Agricultural Weather Facility. 2018b. Weekly Weather and Crop Bulletin. Vol. 105, No. 28. URL: [https://downloads.usda.library.cornell.edu/usda-esmis/files/cj82k728n/xk81jk63m/8g84mm53g/weather\\_weekly-07-10-2018.pdf](https://downloads.usda.library.cornell.edu/usda-esmis/files/cj82k728n/xk81jk63m/8g84mm53g/weather_weekly-07-10-2018.pdf)
- Lincoln, F. C. 1930. Calculating waterfowl abundance on the basis of banding returns. U.S. Department of Agriculture Circular No. 118.
- Kabat, C., and D. K. Thompson. 1963. Wisconsin quail, 1834-1962, population dynamics and habitat management. Wisconsin Conservation Department Technical Bulletin No. 30.
- Otis, D.L. 206. A mourning dove hunting regulation strategy based on annual harvest statistics and banding data. Journal of Wildlife Management 70:1302–1307.
- Robinson, A.C., R.T. Larsen, J.T. Flinders, and D.L. Mitchell. 209. Chukar seasonal survival and probably causes of mortality. Journal of Wildlife Management 73: 89-97.
- U.S. Fish and Wildlife Service. 2015. Mourning Dove Harvest Strategy 2015. U.S. Department of the Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Washington, D.C., USA.
- Vance, D. R., and J. A. Ellis. 1972. Bobwhite populations and hunting on Illinois public hunting areas. Proceedings of the National Quail Symposium 1:165–174.

Table 1. Estimated upland game bird harvest in Idaho as determined by random telephone survey of license buyers, 2009-present.

Season	Pheasant	Forest grouse	Gray partridge	Chukar	Quail	Sage-grouse	Sharp-tailed grouse	Turkey
2009	67,600	93,200	29,400	71,100	83,100	7,200	5,600	6,100
2010	64,400	66,800	48,000	57,100	83,100	4,100	6,100	4,900
2011	63,200	72,000	45,800	78,600	85,300	2,100	2,900	5,400
2012	66,800	87,700	43,400	53,800	117,200	2,500	4,600	4,900
2013	44,400	93,000	28,300	48,000	66,500	2,400	3,700	4,900
2014	50,100	79,700	20,800	33,700	67,900	2,400	3,500	5,600
2015	62,300	90,900	25,400	48,600	82,800	2,900	3,400	6,700
2016	57,400	66,600	42,200	66,100	71,200	2,700	2,200	6,900
2017	39,100	59,400	34,500	51,600	61,000	2,400	2,400	4,900
2018	37,300	68,600	28,900	51,100	58,100	2,000	2,700	6,900
3-year average	44,600	64,900	35,200	56,300	63,400	2,400	2,400	6,200

Table 2. Season framework, estimated pheasant hunter numbers, and harvest in Idaho, 2009-present.

Season	Season (days) <sup>a</sup>	Daily bag <sup>a</sup>	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2009	76	3	20,100	67,600	110,100	3.4	0.6
2010	77	3	20,700	64,400	107,700	3.1	0.6
2011	76	3	20,500	63,200	120,600	3.1	0.5
2012	76	3	19,400	66,800	99,500	3.4	0.7
2013	73	3	17,500	44,400	80,700	2.5	0.6
2014	75	3	14,400	50,100	77,200	3.5	0.7
2015	76	3	17,500	62,300	94,100	3.6	0.7
2016	78	3	14,800	57,400	64,700	3.9	0.9
2017	72	3	11,000	39,100	54,700	3.6	0.7
2018	73	3	11,800	37,300	55,200	3.2	0.7
3-year average			12,500	44,600	58,200	3.5	0.8

<sup>a</sup> Season length and bag in southwestern Idaho where the majority of pheasant hunting occurs.

Table 3. Season framework, estimated quail hunter numbers, and harvest in Idaho, 2009-present.

Season	Season (days) <sup>a</sup>	Daily bag <sup>a</sup>	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2009	135	10	10,100	83,100	49,800	8.3	1.7
2010	136	10	10,000	83,100	52,800	8.3	1.6
2011 <sup>b</sup>	123	10	9,300	85,300	54,600	9.2	1.6
2012	139	10	10,014	117,184	52,725	11.7	2.2
2013	133	10	8,200	66,500	45,100	7.9	1.5
2014	134	10	8,500	67,900	43,900	8.0	1.6
2015	135	10	10,100	82,800	55,000	8.2	1.5
2016	137	10	8,000	71,200	33,000	8.9	2.2
2017	138	10	6,900	61,000	36,200	8.8	1.7
2018	139	10	5,700	58,100	28,400	10.2	2.1
3-year average			6,900	63,400	32,500	9.3	2.0

<sup>a</sup> Season length and bag in Canyon County.

<sup>b</sup> Season opener was 1 October in 2011.

Table 4. Season framework, estimated forest grouse hunter numbers, and harvest in Idaho, 2009-present.

Season	Season (days) <sup>a</sup>	Daily bag <sup>a</sup>	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2009	122	4	23,300	93,200	207,800	4.0	0.5
2010 <sup>b</sup>	124	4	20,100	66,800	163,900	3.3	0.4
2011	124	4	21,700	72,000	186,900	3.3	0.4
2012	124	4	20,711	87,700	191,700	4.2	0.5
2013	124	4	21,100	93,000	198,000	4.4	0.5
2014	124	4	20,400	79,700	187,700	3.9	0.4
2015	124	4	30,600	90,900	203,400	3.0	0.5
2016	124	4	20,900	66,600	117,800	3.2	0.6
2017	124	4	21,800	59,400	125,600	2.7	0.5
2018	124	4	20,900	68,600	137,900	3.3	0.5
3-year average			21,200	64,900	127,100	3.1	0.5

<sup>a</sup> Season length and bag in southwestern Idaho where the majority of forest grouse hunting occurs.

<sup>b</sup> Season opener was moved to 30 August in 2010.



Table 5. Idaho hunting season and bag-limit guidelines for sage-grouse populations<sup>a</sup>.

Option	3-year running average of lek counts	Days	Daily Bag
Closed	<ul style="list-style-type: none"> <li>• Less than 100 males observed</li> <li>• Lek counts are less than 50% of 1996–2000 average counts</li> <li>• Lek data are not gathered for population</li> </ul>	0	0
Restrictive	<ul style="list-style-type: none"> <li>• Lek counts are between 50% and 150% of the 1996–2000 average</li> </ul>	7	1
Standard	<ul style="list-style-type: none"> <li>• Lek counts exceed 150% of the 1996–2000 average</li> </ul>	23	2

<sup>a</sup> 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, 2009-present.

Season	Season (days)	Daily bag	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2009	23	2	4,400	7,200	9,700	1.6	0.7
2010	7	1	3,500	4,100	7,000	1.2	0.6
2011	7	1	2,700	2,100	5,000	0.8	0.4
2012	7	1	2,600	2,600	4,900	1.0	0.5
2013	7	1	2,800	2,400	5,300	0.9	0.5
2014	7	1	2,700	2,400	5,200	0.9	0.5
2015	7	1	2,600	2,900	5,400	1.1	0.5
2016	7	1	2,700	2,700	5,500	1.0	0.5
2017	7	1	2,600	2,400	4,900	0.9	0.5
2018	7	1	2,100	2,000	4,100	1.0	0.5
3-year average			2,500	2,400	4,800	1.0	0.5

Table 7. Season framework, estimated sharp-tailed grouse hunter numbers, and harvest in Idaho, 2009-present.

Season	Season (days) <sup>a</sup>	Daily bag <sup>a</sup>	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2009	31	2	2,200	5,600	6,300	2.5	0.9
2010	31	2	2,000	6,100	6,400	2.3	0.8
2011	31	2	1,800	2,900	4,400	1.6	0.6
2012	31	2	1,800	4,600	5,400	2.6	0.9
2013	31	2	1,700	3,700	5,000	2.2	0.7
2014	31	2	1,500	3,500	4,500	2.3	0.8
2015	31	2	1,600	3,400	4,600	2.1	0.7
2016	31	2	1,100	2,100	3,500	1.7	0.6
2017	31	2	1,200	2,400	3,700	2.0	0.7
2018	31	2	1,200	2,700	3,600	2.3	0.8
3-year average			1,200	2,400	3,600	2.1	0.7

<sup>a</sup> Season length and bag in Fremont County.

Table 8. Season framework, estimated chukar hunter numbers, and harvest in Idaho, 2009-present.

Season	Season (days) <sup>a</sup>	Daily bag <sup>a</sup>	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2009	135	8	8,700	71,100	45,900	8.2	1.6
2010	136	8	10,000	57,100	43,900	5.7	1.3
2011 <sup>b</sup>	123	6	9,200	78,600	61,200	8.5	1.3
2012	139	8	10,400	53,800	47,300	5.2	1.1
2013	133	8	8,400	48,000	49,100	5.7	1.0
2014	134	8	8,000	33,700	41,500	4.2	0.9
2015	135	8	8,900	48,600	53,600	5.5	0.9
2016	137	8	8,700	66,100	34,700	7.6	1.9
2017	138	8	6,400	51,600	37,500	8.1	1.4
2018	139	8	8,500	51,100	45,600	6.0	1.1
3-year average			7,900	56,300	39,300	7.2	1.5

<sup>a</sup> Season length and bag in Canyon County.

<sup>b</sup> Season opener was 1 October in 2011.

Table 9. Season framework, estimated gray partridge hunter numbers, and harvest in Idaho, 2009-present.

Season	Season (days) <sup>a</sup>	Daily bag <sup>a</sup>	Hunters	Harvest	Hunter days	Birds per hunter	Birds per day
2009	135	8	6,500	29,400	45,800	4.5	0.6
2010	136	8	8,700	48,000	56,700	5.5	0.9
2011 <sup>b</sup>	123	6	6,900	45,800	53,000	6.7	0.9
2012	139	8	7,800	43,400	44,700	5.5	1.0
2013	133	8	5,700	28,300	36,600	5.0	0.8
2015	134	8	6,100	20,800	37,000	3.4	0.6
2015	135	8	6,600	25,400	42,300	3.9	0.6
2016	137	8	6,800	42,200	33,900	6.2	1.2
2017	138	8	4,500	34,500	25,600	7.8	1.4
2018	139	8	5,400	28,900	29,600	5.4	1.0
3-year average			5,600	35,200	29,700	6.4	1.2

<sup>a</sup> Season length and bag in Canyon County.

<sup>b</sup> Season opener was 1 October in 2011.

Table 10. Season framework and estimated turkey harvest in Idaho, 2008-present.

Season	General season framework			General season harvest			Controlled hunts			Total harvest	Total tags sold
	Spring	Fall	Bag	Spring	Fall	Total	Hunts	Permits	Harvest		
2008	4/15-5/25	9/15-12/31	6	2,783	2,080	4,863	19 <sup>b</sup>	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 <sup>d</sup>	4/15-5/25	9/15-12/31	6	3,003	1,469	4,472	20 <sup>c</sup>	1,078	377	4,849	33,470
2011	4/15-5/25	9/15-12/31	6	3,231	1,439	4,670	20	1,078	352	5,350	32,166
2012	4/15-5/25	9/15-12/31	6	3,165	1,310	4,475	20	1,161	410	4,885	31,422
2013	4/15-5/25	9/15-12/31	6	2,794	1,650	4,444	23	1,273	474	4,918	30,163
2014	4/15-5/25	9/15-12/31	6	3,264	1,842	5,106	23	1,337	500	5,606	31,905
2015	4/15-5/25	9/15-12/31	6	3,685	2,503	6,188	23	1,337	496	6,684	33,976
2016	4/15-5/25	9/15-12/31	6	3,809	2,658	6,467	22	1,190	408	6,875	35,233
2017	4/15-5/25	9/15-12/31	6	3,256	1,341	4,597	22	1,190	348	4,945	37,010
2018	4/15-5/25	9/15-12/31	6	4,079	2,221	6,300	26	1,415	406	6,706	38,544
3-year average				3,715	2,073	5,788	23	1,265	387	6,175	

<sup>a</sup> Special Unit Tags initiated in Fall 2007; three extra tags available in GMUs 1, 2, 3, and 5.

<sup>b</sup> Three spring hunts and three fall hunts were added in 2008.

<sup>c</sup> One fall hunt was added in 2010.

<sup>d</sup> The waiting period for use of the extra tag in spring was eliminated

Table 11. Turkey translocation history for Idaho, 2008-present.

Year	Sub-species <sup>a</sup>	Release site	Source	Birds released
2010	H	GMU 31	GMU 1	75
2011	H	GMU 11	GMU 11	37
	H	GMU 14	GMU 11A	8
	H	GMU 15	GMU 11A	7
2012 <sup>c</sup>				
2013	H	GMU 68A		18
2014 <sup>c</sup>				
2015	R	GMU 41	GMU 54	15
	H	GMU 21A	GMU 77	62
2016	H	GMU 15	GMU 13	95
2017	U	GMU 21A	GMU 38	17
2018	U	GMU 21A	GMU 31	50
	U	GMU 39	GMU 38	7
	U	GMUs 70, 73,74, 77	GMUs 68A, 77	130
2019	U	GMU 39	GMU 38	100
	U	GMUs 70, 71, 73, 77	GMUs 68A, 77	175
Total				796

<sup>a</sup> E = Eastern, H = Hybrid, M = Merriam's, R = Rio Grande, U = Unknown.

<sup>b</sup> Approximate number of game farm birds released in Boundary County by private citizens.

<sup>c</sup> No translocation during year.

Table 12. Estimated cottontail rabbit and snowshoe hare harvest in Idaho, 2009-present.

Season	Cottontail rabbit		Snowshoe hare	
	Hunters	Cottontails harvested	Hunters	Hares harvested
2009	2,300	9,100	600	1,100
2010	3,700	21,600	600	1,100
2011	2,100	5,500	700	2,300
2012	2,800	11,300	1,000	3,400
2013	1,700	4,200	600	500
2014	2,300	9,700	900	1,400
2015	4,400	21,600	400	600
2016	2,400	12,400	1,100	9,300
2017	1,800	6,900	1,200	1,400
2018	1,000	2,300	300	200
3-year average	1,700	7,200	900	3,600

## 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, or wild turkey during the reporting period.

### Pheasant

#### Abstract

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

#### Harvest Characteristics

Most pheasant hunting in the Panhandle Region occurs in the Palouse country around Worley, Plummer, and Tensed. Remnant wild populations still occur and provide fair hunting for those people who have permission to hunt on private land. A harvest survey of 2018 upland game hunters estimated hunters harvested 1,899 pheasants (Table 1). Because pheasant hunting effort and reporting rate are low, harvest estimates are imprecise and may be misleading.

#### Management Implications

The quality and quantity of pheasant habitat in the Panhandle Region has declined to a low point due to modern, clean farming techniques and monoculture crops. Despite a change from large-scale field burning of seed-bluegrass fields in the Palouse, there has not been an increase in pheasants. This is likely due to the continuation of clean farming and monoculture crops.

### Quail

#### Abstract

Quail in the Panhandle Region are present at low population levels associated with agricultural lands, hay production and pasture areas, and urban interface areas where they often receive supplemental winter feeding. Population levels are low because annual snowfall and cool, wet springs reduce chick survival. Quail survival improves in years with minimal snow accumulation.

#### Harvest Characteristics

Quail hunting effort in the Panhandle Region is very low. Harvest information obtained from the statewide harvest survey indicates an estimated 156 hunters harvested 2,313 quail in 2018 (Table 2). Because quail hunting effort and reporting rate are low, harvest estimates are imprecise and may be misleading.

## **Management Implications**

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

## **Forest Grouse**

### **Abstract**

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

### **Harvest Characteristics**

A harvest survey of 2018 upland game hunters estimated 3,458 hunters harvested 9,333 forest grouse (Table 3). The trend in harvest indicates a decline in forest grouse hunting since 1983, but relatively stable populations over the past 10 years. Harvest by species of forest grouse is shown in Table 4.

### **Climatic Conditions**

Wet, cold spring weather in northern Idaho is the rule, rather than the exception. Adverse spring weather can limit production and survival of forest grouse for several years at a time.

### **Management Implications**

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

## **Gray Partridge**

### **Abstract**

Gray partridge in the Panhandle Region are associated with agricultural lands near Worley, Plummer, Harrison, and Post Falls. Despite a change from large-scale field burning of seed-bluegrass fields in the Palouse, there has not been an increase in gray partridge. Intensive farming also contributes to fewer gray partridge by eliminating permanent cover patches, annual weeds that serve as food sources, wind breaks, fence rows, and riparian zones.

### **Harvest Characteristics**

Gray partridge hunting effort in the Panhandle Region is very low. A few hunters are checked on the Rathdrum Prairie and the rolling hill country near Worley and Plummer. Historic harvest information obtained from the statewide harvest survey is believed to reflect, almost entirely, Panhandle Region hunters hunting in other regions. Harvest information obtained from the 2018 statewide harvest survey indicates an estimated 84 hunters harvested 765 gray partridge (Table 5). Because gray partridge hunting effort and reporting rate are low, harvest estimates are imprecise and may be misleading.



### **Management Implications**

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

## **Wild Turkey**

### **Harvest Characteristics**

Turkey populations are strong in the Panhandle Region. The highest turkey harvest on record occurred in 2016, followed by 2018 (Table 6). Hunter participation and harvest rate are relatively high and stable. Turkeys are widespread throughout the Panhandle.

### **Trapping and Translocation**

Trapping and removal of turkeys typically occurs in the winter months to alleviate damage to fields, buildings, and equipment where turkeys congregate in large numbers. There were no wild turkeys trapped during the 2018-2019 winter.

### **Management Implications**

Turkey populations have grown and spread, especially on or near private land throughout northern Idaho. The fall season was lengthened to allow additional time to harvest turkeys, especially in areas with turkey depredations. Harvest will continue to be encouraged to keep depredation problems at manageable levels.

## **Snowshoe Hare**

### **Background**

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

Snowshoe hare hunting effort in the Panhandle Region is generally low. Harvest information obtained from the statewide harvest survey indicates an estimated 84 hunters harvested no hares during 2018 (Table 7). Because snowshoe hare hunting effort and reporting rate are low, harvest estimates are imprecise and may be misleading.

### **Management Implications**

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

Table 1. Estimated pheasant harvest, Panhandle Region, 2009-present.

Season	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2009	666	3,318	5,827	4.9	0.6
2010	450	1,232	2,555	5.7	0.5
2011	530	1,189	2,116	2.2	0.6
2012	610	959	2,026	1.6	0.5
2013	361	234	992	0.6	0.2
2014	182	246	562	1.4	0.4
2015	886	1,488	2,672	1.7	0.6
2016	505	190	1,504	0.4	0.1
2017	600	1,698	1,252	2.8	0.7
2018	478	1,899	3,356	4.0	0.6
3-year avg.	528	1,262	2,037	2.4	0.6

Table 2. Estimated quail harvest, Panhandle Region, 2009-present.

Season	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2009	326	2,936	2,572	9.0	1.1
2010	246	679	1,463	2.8	0.5
2011	356	2,013	1,688	5.7	1.2
2012	214	1,281	687	6.0	1.9
2013	247	972	448	3.9	2.2
2014	84	48	253	0.6	0.2
2015	634	1,818	1,711	2.9	1.1
2016	273	222	570	0.8	0.4
2017	199	73	2,696	0.4	0.03
2018	156	2,313	1,632	14.8	1.4
3-year avg.	209	869	1,633	4.2	0.5

Table 3. Estimated forest grouse harvest, Panhandle Region, 2009-present.

Season	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2009	4,285	18,537	41,014	4.3	0.5
2010	3,708	10,927	39,021	3.0	0.3
2011	5,260	17,336	46,848	3.3	0.4
2012	5,260	7,717	29,318	1.5	0.3
2013	6,400	17,932	41,689	2.8	0.4
2014	4,239	12,744	37,948	3.0	0.4
2015	4,291	19,005	53,717	4.4	0.4
2016	4,378	15,827	30,466	3.7	0.5
2017	4,577	14,622	35,454	3.2	0.4
2018	3,458	9,333	26,972	2.7	0.3
3-year avg.	4,138	13,261	30,964	3.2	0.4

Table 4. Relative contribution of grouse species to the forest grouse harvest in the Panhandle Region, 2018.

Species	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
Ruffed grouse	2,876	7,742	20,474	2.7	0.4
Dusky grouse	684	729	6,889	1.1	0.1
Spruce grouse	325	459	1,854	1.4	0.2
Unk grouse	488	556	5,929	1.1	0.1
Combined	3,458	9,333	26,972	2.7	0.3

Table 5. Estimated gray partridge harvest, Panhandle Region, 2009-present.

Season	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2009	457	3,289	6,303	7.2	0.5
2010	191	438	1,097	2.3	0.4
2011	97	6	366	0.1	0.0
2012	127	1,260	547	9.9	2.3
2013	11	4	82	0.4	0.1
2014	54	1	167	0.0	0.0
2015	253	433	855	1.7	0.5
2016	85	206	322	2.4	0.6
2017	187	12	577	0.1	0.0
2018	84	765	1,137	9.1	0.7
3-year avg.	119	328	679	2.8	0.5

Table 6. Estimated turkey harvest, Panhandle Region, 2009-present.

Year Hunt	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
2009						
General Spring	1		2,926	668	14.9	10,005
General Fall	1		2,394	1,217	8.6	10,526
2010						
General Spring	1		2,926	668	15.0	10,05
General Fall	1		1,952	791	11.6	9,195
2011						
General Spring	1		2,950	790	12.9	10,195
General Fall	1		2,340	1,047	9.6	10,013
2012						
General Spring	1		3,009	772	14.6	11,266
General Fall	1		2,466	1,162	4.3	10,570
2013						
General Spring	1		2,518	836	9.5	7,910
General Fall	1		2,602	1,124	9.2	10,350
2014						
General Spring	1		2,611	799	11.5	9,197
General Fall			1,947	829	8.8	7,324
2015						
General Spring	1		2,757	905	11.3	10,243
General Fall	1		2,238	1,070	7.7	8,267
2016						
General Spring	1		2,572	1,132	7.5	8,494
General Fall	1		2,709	1,512	7.4	11,114
2017						
General Spring	1		2,459	947	10.8	10,192
General Fall	1		2,448	1,028	10.3	10,546
2018						
General Spring	1		2,924	1,623	6.1	9,826
General Fall	1		1,718	733	10.6	7,806

Table 7. Estimated snowshoe hare harvest, Panhandle Region, 2009-present.

Season	Hunters	Hares harvested	Days hunted	Hares per hunter	Hares per hunter day
2009	118	524	2,587	4.4	0.2
2010	98	131	682	1.3	0.2
2011	86	0	430	0.0	0.0
2012	189	351	1,919	1.9	0.2
2013	123	228	648	1.9	0.4
2014	358	791	3,300	2.2	0.2
2015	106	133	355	1.3	0.4
2016	199	240	2,491	1.2	0.1
2017	519	708	2,137	1.4	0.3
2018	84	0	602	0	0
3-year average	267	316	1,743	1.2	0.2

## CLEARWATER REGION

### Trapping and Translocation

No trapping or translocation took place in the Clearwater Region for pheasant, California quail, forest grouse, sharp-tailed grouse, chukar, or gray partridge during the reporting period. Turkeys were last translocated within the region in early 2017 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 pheasant population trends. A twelfth route was added in 2001. These data provide an index of relative abundance and are used to monitor annual changes and long-term trends in regional populations. Due to low detection rates, however, these data are imprecise and should be interpreted cautiously.

The 2017-2018 winter was mild to start, but more normal winter conditions returned late, with cold temperatures and heavy snow across the Clearwater Region. Impacts of these conditions on upland game bird survival are largely unknown, although no abnormally high mortality rates were detected. During the spring 2018 nesting and early brood-rearing periods, weather conditions were abnormally cool and wet through June. Cool and wet weather can provide for excellent summer brood-rearing habitat, but can also result in chick mortality, depending on timing and intensity of precipitation events.

Thirteen pheasants were observed in 2018 representing an 81% decrease from the 69 birds tallied in 2017, and 67% lower than the previous 3-year average of 43 birds (Table 1). The 13 birds observed during 2018 represented just 7% of the historical high count of 199 pheasants tallied on these routes (in 2005). The 13 pheasants observed on the 240 miles of routes surveyed in 2018 equates to 0.004 pheasants observed per mile surveyed. No broods were encountered during the 2018 brood route survey. An average of 4.7 broods was tallied on these routes over the previous 10 years. The historical high count of 32 broods was tallied in 2005.

#### Harvest Characteristics

Harvest surveys estimated 878 hunters harvested 927 pheasants in 2018 (Table 2); a decrease from the 1,004 hunters and 3,124 pheasants reported in 2017. The number of pheasants harvested per hunter-day (0.4) in 2018 was identical to that of 2017.

#### Management Implications

Pheasant populations in north Idaho have been at reduced levels since 1983. Small grain fields and adjacent idle uplands provide some nesting cover for pheasants in the Clearwater Region. Limiting factors to population growth include nesting and brood-rearing habitat, and inadequate winter cover and/or inadequate winter food adjacent to winter cover. Development of contiguous blocks of nesting and brood-rearing cover, and scattered, permanent wintering areas that provide adequate food and cover in those portions of the region where they are lacking would allow pheasant populations to increase. In addition, other factors such as agricultural chemical application could be negatively impacting pheasants in the region.

IDFG began working with the U.S. Soil Conservation Service and U.S. Agricultural Stabilization and Conservation Service to implement the CRP program in 1986 and has continued cooperative efforts 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, IDFG also initiated the statewide HIP program for upland game, which was directed primarily toward pheasants, quail, gray partridge, and chukar. This program, in conjunction with CRP, has potential to positively affect upland game populations, particularly pheasants.

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

## **California Quail**

### **Population Surveys**

No reliable population surveys are currently conducted for California quail in the Clearwater Region. However, quail are counted incidentally during annual pheasant brood route surveys, which provide annual population trend information. The number of quail counted in 2018 was higher than 2017. One hundred forty-six birds were counted in 2018; 76% more than the 83 counted in 2017. This total is 4% lower than the previous 10-year average of 153 and is 38% lower than historical high count of 385 tallied in 2003. The 146 quail tallied on these routes in 2018 translates to 0.61 birds per mile surveyed.

### **Harvest Characteristics**

During 2018, an estimated 689 hunters harvested 2,963 quail, a 77% decrease compared to 2017 when 1,331 hunters harvested 10,275 quail. Total harvest was 44% of the previous 3-year average (Table 3).

### **Management Implications**

Availability of quail habitat has likely 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 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 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 a fall/winter emphasis in 1994. The project generated several reports, two management plans, several popular articles and a technical manuscript. Results include information on seasonal habitat use and survival in Idaho as well as new habitat and population survey techniques. A summary of this work is provided in a 2004 Department report by Ann Moser and is available at the Boise Headquarters office.

### **Trapping and Translocation**

Another mountain quail project was started during spring 2004 in the Craig Mountain area. Mountain quail were transplanted into GMU 11 in spring 2005. Fifty of the 72 transplanted quail were fitted with radio transmitters. An additional 89 mountain quail (50 radio-equipped) from Oregon were transplanted onto Craig Mountain WMA in spring 2006. Survival was estimated at 22% for 2005 and 15% for 2006. The majority of known mortalities were caused by avian predators (74%) and mammals (22%), respectively.

## **Forest Grouse**

### **Population Surveys**

Random brood counts and drumming route counts were discontinued in 1988. Presently, no surveys are conducted to monitor forest grouse population trends or predict fall harvest. Incidental observations and reports from field staff and sportsman during 2018 indicate forest grouse production was likely below the long-term average, as field most reports indicated fewer birds (especially broods) observed in summer 2018 than normal.

### **Harvest Characteristics**

Collections of random field check harvest data were discontinued in 1988. Regional harvest survey information on forest grouse has been variable (Table 4). Harvest information was not collected at the regional level from 1996-2000 due to budgetary constraints. Harvest survey data for the region estimated 2,652 hunters harvested 14,092 forest grouse in 2018, compared to 2017 when 3,332 hunters harvested 10,935 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 are believed to have been eliminated by the mid-1930s. Factors contributing to the decline and eventual loss of the species from the area were overhunting, overgrazing by livestock, and intensified agricultural practices resulting in habitat destruction.

### **Harvest Characteristics**

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

### **Management Implications**

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

## **Chukar**

### **Population Surveys**

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

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

Between 1988 and 2010, the breaks of the Snake River were surveyed from Tenmile Creek upstream to Corral Creek by helicopter (Table 5). From 1991 through 2010, the Salmon River breaks from White Bird to Maloney Creek were also surveyed annually. Helicopter surveys were considered a useful index to determine trends in fall chukar hunting opportunities. Although other factors are apparently involved when predicting fall harvest, general trends appear predictable based on the surveys. Helicopter surveys for chukars were discontinued in 2011 due to agency flight safety program modifications. Anecdotal observations and reports from field staff and the public during 2018 appeared to indicate very good chukar nesting success and chick survival with observations of many birds, including numerous large broods.

### **Harvest Characteristics**

Fluctuating harvest rates over the past several years likely reflect changes in productivity related to weather impacts. Harvest survey data estimated 1,439 hunters harvested 7,014 chukars in 2018, compared to the 2017 season when 1,476 hunters harvested 8,839 chukars (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 necessary during periods of population lows. Decrease in chukar harvest is likely due to unfavorable weather conditions during nesting and brood-rearing periods. Like most gallinaceous bird species, chukar populations can rebound quickly given ideal nesting and brood-rearing conditions. Chukar habitat in the Clearwater Region has remained largely unchanged, and abundance will likely increase in the future when favorable nesting conditions occur.

## **Gray Partridge**

### **Population Surveys**

No standardized population surveys are currently conducted for gray partridge in the Clearwater Region. However, gray partridge are counted incidentally during pheasant brood routes. The number of gray partridge observed in 2018 was down from the 2017 total. Fifty-nine gray partridge were counted in 2018. This figure represents a 36% decline from the 92 birds tallied in 2017 and is 42% lower than the previous 10-year average of 101. Over the past 10 years, the number of gray partridge tallied on these routes has varied from 42 (in 2008) to 176 (in 2015).

### **Harvest Characteristics**

Harvest information on gray partridge has varied considerably in recent years. For the 2018 season, an estimated 435 hunters harvested 675 gray partridge, down markedly from 2017 when an estimated 657 hunters harvested 2,721 gray partridge (Table 7).

### **Management Implications**

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

## **Wild Turkey**

### **Population Surveys**

The IDFG does not have a reliable survey method to estimate turkey numbers. However, population status and trend can be inferred to a limited degree from harvest trend, turkey distribution, and general observations of bird numbers from year to year. This information suggests turkey numbers are stable and turkeys are widespread throughout the region, in spite of increases in harvest opportunities to address problem sites.

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

### **Harvest Characteristics**

Turkey harvest estimates have been calculated on a GMU basis since 1983. Regional turkey harvest steadily increased through 1999 as a function of expanding turkey distribution and numbers, and increasing hunter effort, but has since become relatively stable. General season spring and fall turkey hunting has been available in the region since 2005. Combined spring and fall harvest increased markedly from 1,338 birds in 2017 to 2,698 in 2018. The 2018 turkey harvest is also up from the previous 10-year average of 2,085 birds (Table 8).

### **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 recent years, it has not been necessary to initiate any Department-sponsored feeding operations. However, feed was occasionally supplied upon request to private individuals who had large numbers of turkeys on their property, if turkeys were negatively impacting livestock operations, or in areas with significant snowfall and corresponding lack of natural winter feed. The more recent expansion of fall turkey hunting opportunities in the region has also reduced the necessity to respond to sites previously the focus for feeding/trapping efforts.

### **Trapping and Translocation**

Trapping efforts are now focused on sites where turkeys have become a nuisance on private property by contaminating livestock feed or by damaging agricultural crops as they begin to emerge. As translocation stock becomes available, those birds will be used to supplement areas with heavy hunting pressure or declining population trends. Fifty-two turkeys were translocated in the Clearwater Region in January 2011 to alleviate depredation issues (Table 9). In 2016, a total of 95 turkeys were trapped around feedlots in GMU 13 and released in GMU 15. In 2017, 70 turkeys were trapped from a subdivision near Grangeville (Unit 15); 20 were relocated to McKenzie Creek (Unit 14), 15 to Castle Creek (Unit 15), and 35 to Mill Creek (Unit 15) to alleviate nuisance issues.

### **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 number 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.

## **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 within the Clearwater Region.

### **Harvest Characteristics**

Hunter participation in 2018 was up from the 3-year average (221), with 310 hunters reported (Table 10). Cottontail harvest appears to be well under minimum sustainable levels, although 2018 saw a substantial increase in harvest, well above the 3-year average of 640, with 977 rabbits harvested. Because cottontail rabbit hunting effort and reporting rate are low, harvest estimates are imprecise and may be misleading.

### **Management Implications**

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

## **Snowshoe Hare**

### **Population Surveys**

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

### **Harvest Characteristics**

Harvest pressure on snowshoe hares is light in the Clearwater Region. However, 2016 saw a substantial increase in estimated harvest of snowshoe hares throughout the region with 2,348 animals taken by 290 hunters (Table 10). In 2017, only 413 snowshoe hares were harvested by 362 hunters; returning to near historic levels (Table 10). In 2018, an estimated 346 hunters harvested 284 hares. Because snowshoe hare hunting effort and reporting rate are low, harvest estimates are imprecise and may be misleading. 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.

Table 1. Pheasant population characteristics and production, Clearwater Region, 2009-present.

Season	Routes (miles) counted	Birds per mile	Percent unsuccessful females	Juv:10 adult females*	<i>n</i>	Average brood size
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	40	27	4.7
2012	12(240)	0.3	0	50	72	7.0
2013	12(240)	<0.1	0	70	10	2.5
2014	12(240)	0.1	0	43	22	4.3
2015	12(240)	0.5	19	41	115	5.2
2016	12(240)	0.2	66	37	47	5.5
2017	12(240)	0.3	15	39	69	4.6
2018	12(240)	<0.1	100	17	13	ND
3-year avg.	12 (240)	0.2	23	34	39	3.8

\*Re-calculated (2008-2017) Juv:10 adult females to reflect that calculation (# chicks observed/# hens observed \* 10)

Table 2. Estimated pheasant harvest, Clearwater Region, 2009-present.

Season	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2009	981	1,483	4,098	1.5	0.4
2010	1,442	4,774	5,489	3.3	0.9
2011	1,067	3,095	6,663	2.9	0.5
2012	1,368	4,083	9,369	3.0	0.4
2013	1,080	2,082	4,944	1.9	0.4
2014	594	2,240	2,270	3.8	1.0
2015	1,287	3,220	5,967	2.5	0.5
2016	1,346	5,282	5,981	3.9	0.9
2017	1,004	3,124	7,749	3.1	0.4
2018	878	927	2,496	1.1	0.4
3-year avg.	1,076	3,111	5,409	2.7	0.6

Table 3. Estimated quail harvest, Clearwater Region, 2009-present.

Season <sup>a</sup>	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2009	687	4,547	4,282	6.6	1.1
2010	1,019	9,579	5,569	9.4	1.7
2011	732	7,329	6,159	10.0	1.2
2012	1,016	4,902	4,874	4.8	1.0
2013	628	3,957	3,042	6.3	1.3
2014	654	3,421	3,313	5.2	1.0
2015	642	4,290	3,372	6.7	1.3
2016	949	7,000	4,533	7.4	1.5
2017	1,331	10,275	7,486	7.7	1.4
2018	689	2,963	2,561	4.3	1.2
3-year avg.	990	6,746	4,860	6.5	1.4

Table 4. Estimated forest grouse harvest, Clearwater Region, 2009-present.

Season	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2009	4,243	22,362	50,190	5.3	0.4
2010	2,862	13,323	28,863	4.7	0.5
2011	2,952	12,383	33,474	4.2	0.4
2012	2,952	10,959	38,861	3.7	0.3
2013	5,694	19,753	33,435	3.5	0.6
2014	5,225	15,401	36,191	3.0	0.4
2015	3,446	19,148	31,372	5.6	0.6
2016	3,519	8,004	19,601	2.2	0.4
2017	3,332	10,935	20,510	3.3	0.5
2018	2,652	14,092	21,618	5.3	0.7
3-year avg.	3,168	11,010	20,576	3.6	0.5

Table 5. Helicopter surveys of chukar in GMU 11, Clearwater Region, 2000-present<sup>d</sup>.

Area	Year	Number of birds	Number of groups	Groups/sq. mile	Birds/sq. mile	Birds/group
Salmon River Breaks	2000	756	60	5.0	64.0	12.6
	2001	1,192	94	7.9	10.0	12.7
	2002	583	80	6.7	49.0	7.3
	2003 <sup>a</sup>					
	2004	1,722	144	12.1	144.7	11.9
	2005	1,483	166	13.9	124.6	8.9
	2006 <sup>b</sup>					
	2007 <sup>a</sup>					
	2008 <sup>c</sup>					
	2009 <sup>c</sup>					
	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 <sup>a</sup>					
	2004	797	60	3.7	49.2	13.2
	2005	880	54	3.3	54.3	16.3
	2006 <sup>b</sup>					
	2007 <sup>a</sup>					
	2008 <sup>c</sup>					
	2009 <sup>c</sup>					
	2010	1,276	109	7	79	12.0

<sup>a</sup> Surveys not flown due to fire-related concerns or conflicts.

<sup>b</sup> Surveys not flown due to budget constraints.

<sup>c</sup> Surveys not flown due to lack of current helicopter vendor and price list.

<sup>d</sup> Surveys discontinued in 2011 due to IDFG flight safety program modifications.

Table 6. Estimated chukar harvest, Clearwater Region, 2009-present.

Season	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2009	870	5,263	2,520	6.0	2.1
2010	1,357	10,684	5,217	7.9	2.0
2011	919	4,924	5,890	5.4	0.8
2012	1,079	4,328	2,614	4.0	1.7
2013	739	3,953	2,281	5.4	1.7
2014	916	2,630	3,186	2.9	0.8
2015	1,064	4,679	4,741	4.4	1.0
2016	916	8,840	3,840	9.6	2.3
2017	1,476	8,839	9,495	6.0	0.9
2018	1,439	7,014	4,449	4.9	1.6
3-year avg.	1,277	8,231	5,928	6.8	1.6

Table 7. Estimated gray partridge harvest, Clearwater Region, 2009-present.

Season	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2009	480	2,526	2,289	5.3	1.1
2010	1,221	4,785	6,181	3.9	0.8
2011	904	4,470	5,649	4.9	0.8
2012	876	3,202	3,642	3.7	0.9
2013	549	2,159	2,281	3.9	0.7
2014	518	2,333	2,443	4.5	1.0
2015	494	2,541	3,158	5.1	0.8
2016	710	1,896	2,255	2.7	0.8
2017	657	2,721	2,174	4.1	1.3
2018	435	675	1,360	1.6	0.5
3-year avg.	601	1,764	1,930	2.9	0.9



Table 8. Estimated turkey harvest by GMU, Clearwater Region, 2009-present.

Season	GMU <sup>a</sup>																Total hunter days	
	8	8A	10	10A	11	11A	12	13	14	15	16	16A	17	18	19	20		Total
2009 <sup>a</sup>	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 <sup>a</sup>	202	424	29	597	156	206	15	74	85	68	95	2	2	83	2	1	2,041	20,288
2012 <sup>b</sup>	170	198	13	388	199	187	42	27	40	47	40			22	0	0	1,373	13,471
2013	314	408	98	893	230	233	10	49	83	88	167		5	118			2,699	24,142
2014	314	376	62	924	198	241	10	76	102	86	113	0	5	106	0	0	2,613	24,630
2015	248	451	29	757	187	242	17	65	51	130	53	0	0	52	9	3	2,294	21,208
2016	224	416	32	745	245	237	18	30	60	94	43	0	0	76	0	0	2,220	17,221
2017	207	264	19	450	215	215	0	29	85	113	81	0	0	84	0	0	1,338	16,097
2018	292	456	49	920	224	309	8	85	106	90	99	0	4	56	0	0	2,698	18,995
3-year avg.	241	379	33	705	228	254	9	48	84	99	74	0	1	72	0	1	2,085	17,438

<sup>a</sup> Fall general wild turkey harvest included.

<sup>b</sup> Fall general wild turkey harvest not included

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

Year	Sub-species <sup>a</sup>	Release site		Birds released			New or supplemental release
		Drainage-GMU	Source-GMU	M	F	Total	
2004	H	SE Idaho	Frei-11	10	21	31	S
	H	Billy Cr-11	Frei-11	12	1	13	S
	H	Nevada	Frei-11	15	7	22	N
	H	F.S. Road 1963-8A	Frei-11	0	16	16	N
	H	Eagle Cr-11	Weidner-10A	10	26	36	S
	H	Benton Meadows-11	Weidner-10A	3	32	35	S
	H	Billy Cr-11	Weidner-10A	7	8	15	S
	H	Nevada	Weidner-10A	3	10	13	N
	H	SE Idaho	Nicolls-10A	2	9	11	S
	H	Nevada	Nicolls-10A	6	12	18	N
2005	H	Castle Cr-15	Stover-13	4	14	18	S
	H	Rice Cr-13	Stover-13	5	24	29	S
	H	Earthquake Cr-15	Ross-15	4	47	51	S
	H	Hungry Ridge-15	Ross-15	1	19	20	S
	H	Captain John Cr-11	Ross-15	0	8	8	S
2006	M	Eagle Cr-11	Moyie Springs-1	18	38	56	S
2007	H	Brown Cr-15	Deer Cr-14			22	S
	M	Benton Meadows-11	Boundary County-1	17	59	76	S
	M	Eagle Creek- 11	Boundary County-1	25	29	54	S
2008	H	Castle Creek-15	Sally Anne Rd-15	1	13	14	S
	H	Lawyer Cyn-11A	Sally Anne Rd-15	1	15	16	S
	H	Castle Creek-15	Nez Perce-11A	U	U	20	S
2011	H	Browns Creek-15	Cottonwood Crk-11A	0	7	7	S
	H	Rock Creek-14	Cottonwood Crk-11A	2	6	8	S
	H	Billy Creek-11	Lewiston-11	U	U	37	S
2016	H	Castle Cr-15	Crabtree/Stowers-13	U	U	95	S
2017	H	Castle Cr-15	Crabtree-11A	U	U	70	S

<sup>a</sup> E = Eastern; M = Merriam's; R = Rio Grande; H = Hybrid

Table 10. Estimated cottontail rabbit and snowshoe hare harvest, Clearwater Region, 2009-present.

Season	Cottontail rabbit		Snowshoe hare	
	Hunters	Cottontails harvested	Hunters	Hares harvested
2009	10	29	42	0
2010	146	305	80	186
2011	42	157	55	1
2012	46	46	74	1
2013	55	55	128	155
2014	186	350	186	388
2015	56	42	52	147
2016	106	53	290	2,348
2017	246	891	362	413
2018	310	977	346	284
3-year average	221	640	333	1,015

## **SOUTHWEST REGION**

### **Climatic Conditions**

Precipitation during winter 2017-2018 was below average in southwest Idaho. Spring weather was warmer and drier than normal during nesting and early brood-rearing seasons. Sage-grouse juvenile to hen ratios were 87 juveniles:100 females, 50% lower than the 10-year average. Chukar brood success was 96 juveniles:100 adults. Dusky grouse brood success was 241 juveniles:100 adults, while ruffed grouse brood success was 200 juveniles:100 adults. Quail brood success was 177 juveniles:100 adults. Gary partridge brood success was 223 juveniles:100 adults. Brood success was determined from wings analyzed from 2018 fall hunter harvest, but sample sizes for all species were relatively small.

### **Trapping and Translocation**

In January and February 2018, 50 turkeys were trapped on private property in GMU 31 near Cambridge, banded, and relocated to public land in the Salmon Region near Challis. Additionally, seven turkeys were trapped on private property in GMU 38 near Parma in December 2017 and translocated to the South Fork Boise River drainage in GMU 39.

In March 2019, 246 quail were trapped on private property in GMU 38 as part of a depredation response. Quail were transplanted to Texas as part of a research effort through the College of Agricultural Sciences and Natural Resources at Texas A&M University-Commerce.

## **Pheasant**

### **Population Surveys**

Pheasant abundance and production increased for this reporting period. Percent of hens successful at producing and maintaining a brood to the time of the survey was 67% in 2018, up from 11% in 2017 and slightly below the 10-year average of 71%. Number of chicks per brood was 1.73% in 2018, which was lower than the five chicks observed in the single brood observed in 2017, and 60% lower than the 10-year average of 4.28 chicks per brood. Overall pheasant abundance was up 67% in 2018 compared to 2017 (Table 1).

### **Harvest Characteristics**

A harvest survey of upland game hunters was conducted in 2018 (Table 2). An estimated 4,638 hunters harvested 14,971 birds. Total number of hunters increased 10% and harvest increased 21% compared to 2017. Number of birds per hunter-day was 3.2, a 12% increase compared to 2017.

No pheasant check stations were operated in the Southwest Region during this reporting period (Table 2). Harvest information is available via the annual telephone harvest survey.

### **Habitat Conditions**

Long-term population trends are down, primarily due to conversion of agriculture to residential and commercial development. Fall plowing of all grain fields has become the normal operating procedure, thereby limiting winter food and cover for pheasants. Unless farm practices change,

further long-term reductions in wild populations are expected. We continue to work with landowners to enhance pheasant and other upland game production through habitat enhancement.

### **Depredations**

Some pheasant depredations occur every spring on wheat, barley and corn. Sweet corn is the primary crop damaged by pheasants. Cracker shells, fuse ropes with salutes and propane canons are provided to landowners as needed and landowners are encouraged to continue contacting IDFG for assistance. Two pheasant-related depredation complaints were reported to the region in 2019.

### **Release of Pen-reared Pheasants**

Adult roosters were purchased from a contractor and released on Department lands in the Southwest Region. In 2018 a total of 12,410 pheasants were released on Fort Boise, C.J. Strike, Payette River, and Montour WMAs from October-December. These birds added significantly to hunter opportunity on these four heavily-hunted WMAs.

### **Management Implications**

Pheasant populations are largely dependent upon winter habitat, nesting habitat, and spring weather conditions during the nesting and brood-rearing seasons. Winter weather conditions can be somewhat moderated if habitat conditions are favorable for pheasants. Southwest Idaho has experienced significant changes in agricultural practices and continual home site development over the last 50 years, which have led to a decrease in winter pheasant habitat and a continual decline in pheasant numbers. Associated with the decline in pheasant population and habitat, the number of hunters and harvest is down from historic numbers.

## **Quail**

### **Population Surveys**

In 2018, regional wildlife staff observed 2.7 quail per mile along 397 miles of brood routes surveyed, 19% higher than 2017 and 4% higher than the 10-year average (Table 3).

### **Harvest Characteristics**

During 2018, an estimated 3,788 hunters harvested 39,075 quail, a 7% increase in participation and a 1% decrease in harvest compared to 2017. Hunter participation was 8% below the 3-year average and hunter harvest was 11% below the 3-year average (Table 3).

### **Depredations**

Localized quail depredations sometimes occur on spring early-emergent crops. Department staff have worked with landowners in the past to trap depredating quail and translocate them to WMAs in the region. In March 2019, 246 quail were trapped and translocated to Texas as part of a research effort through the College of Agricultural Sciences and Natural Resources at Texas A&M University-Commerce.

### **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 amount of cold, wet

weather during the nesting season. Populations are currently in good condition. However, hunter participation in the Southwest Region has steadily declined over the last 10 years.

## **Forest Grouse**

### **Population Surveys**

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

### **Harvest Characteristics**

In 2018, an estimated 4,531 hunters harvested 16,990 forest grouse. Harvest was up 12% and hunter participation was up 20% compared to 2017. Overall harvest was up 11% over the 3-year average (Table 4).

Wings from 75 dusky (blue) grouse and 14 ruffed grouse harvested in 2018 were collected at 19 wing barrels distributed in GMUs 22, 31, 32, 32A, 33, and 39. Juvenile:adult ratios of 241:100 and 200:100 were documented for dusky grouse and ruffed grouse, respectively in 2018 (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 dusky grouse populations. 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**

Staff observed 564 male sage-grouse along 13 lek routes in the Southwest Region during March-April 2019, a 17% decrease compared to 2018 (Figure 1, Table 6). Staff also conducted helicopter aerial surveys on 81 leks, and observed 610 birds in GMUs 41 and 42. Owyhee Air conducted aerial infrared surveys on 115 leks and found 846 grouse in GMUs 40, 41 (not including the Diamond A, which is surveyed by the Magic Valley Region), and 42. Aerial surveys were conducted in conjunction with the Bureau of Land Management using both federal and state funds. McCall subregion staff also flew three days of helicopter lek counts and searches; 9 grouse were counted on 28 leks.

### **Harvest Characteristics**

One sage-grouse check station was operated on opening weekend (Mud Flat Road) during fall 2018. Fifty-nine hunters harvested 48 birds in 2018, a 19% decline compared to 2017. The number of hunters was also down (31%) compared to 2017, but consistent with prior years. Number of birds per hunter day was 0.6, and hours per bird was 5.2, below the 3-year average of 6.4 (Table 7). Sage-grouse production was 18% below the 3-year average in 2018. The number

of juveniles per 100 females was 87, 16% lower than the 3-year average (Table 8). Connelly et al. (2011) suggests it takes 200 juveniles per 100 adults to sustain/increase a population.

### **Management Implications**

Sage-grouse population levels are largely driven by habitat conditions over the medium- to long-term and spring and summer weather conditions during nesting and brood-rearing in the short-term. Diseases such as West Nile virus (WNV), to which sage-grouse are highly susceptible, provide an additional stressor to sage-grouse population persistence. Lek survey information suggests sage-grouse populations have stabilized in the southern half of the region since the emergence of WNV in 2006. The West Central population crashed after the 2006 WNV outbreak and has not recovered. Changes in land use affecting sage-grouse habitat and connectivity of sage-grouse populations in the West Central population area are suspected to be the primary reasons sage-grouse numbers have not recovered. .

The West Central sage-grouse population is unique due to its isolation from other sage-grouse populations. Limited exchange with sage grouse across the Snake River in Oregon has been documented, but the population is otherwise isolated. Furthermore, sage-grouse habitat is highly fragmented and largely under private ownership. The West Central population is not likely to persist for more than a few years.

Department staff continue to work closely with land management agencies to minimize and mitigate effects of current and proposed land management practices on sage-grouse habitat. A study was conducted in several portions of Owyhee County from 2007-2010 to ascertain seasonal distribution and movements, and to document the impacts of WNV on sage-grouse. The study has been used to prioritize habitat protection and improvement efforts based on key seasonal habitat used by sage-grouse.

In August 2015, the Soda Fire burned 279,000 acres of grasses and shrubs. About a third of this fire occurred in sage-grouse habitat, burning across 11 active leks. Federal and State agencies, landowners, and NGOs are working together to develop habitat restoration projects throughout the burned area. It is important to note the sage-grouse habitat burned was on the northern edge of intact sagebrush and is expected to have limited effect on overall sage-grouse populations in Owyhee County. Leks will continue to be monitored in the future.

## **Sharp-tailed Grouse**

### **Population Surveys**

Sharp-tailed grouse lek counts have been conducted annually on the Hixon Sharp-tailed Grouse Preserve in west-central Idaho since 1982. Counts of males on these leks in 2018 increased 73% compared to 2017 (Table 9). A few additional leks are monitored in the area, by both Department and BLM personnel, but have not been monitored consistently enough to be included in the long-term trend data set.

### **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 IDFG and BLM completed research on sharp-tailed grouse distribution, habitat use, and population size in Washington County in 1985, but has not participated in research on sharp-tailed grouse habitat in Southwest Region since then.

### **Management Implications**

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

Populations appear to be increasing because of CRP improvements, the creation of the Preserve, changes in land management practices, and good climatic conditions. However, populations are not likely to reach harvestable levels in the foreseeable future, due primarily to the isolation of this population from other sharp-tailed grouse populations and increasing human development in the area. Additional improvements in occupied and adjacent habitats will ensure long-term stability of this isolated population.

## **Chukar**

### **Population Surveys**

No chukar aerial surveys were conducted during the reporting period. Between 1984 and 2010, helicopter surveys were conducted near Brownlee and Lucky Peak reservoirs to monitor chukar population trends. However, due to cost and safety issues, aerial chukar surveys are no longer conducted.

### **Harvest Characteristics**

An estimated 5,034 hunters harvested 31,763 chukar in 2018. The total number of hunters decreased 30%, while total harvest increased 90% compared to 2017. Birds per hunter day was slightly lower than the 3-year average (Table 10).

Voluntary survey responses from chukar hunters at Andrus WMA during opening weekend showed 16 hunters harvested 76 birds, for a total of 4.75 birds per hunter and 0.75 hours per bird. Overall harvest increased 90% and hunter participation decreased 30% compared to 2017. (Table 10).

### **Management Implications**

Chukar populations are largely dependent on spring weather conditions during nesting and brood-rearing. Recruitment of birds into fall is dictated by weather and forage availability and



quality. In August 2015, the Soda Fire burned 279,000 acres of upland habitat along the Owyhee Front. This area has been popular for upland bird hunting. Numerous agencies and NGOs are working together to improve upland habitat and prevent similar large fires in the future. It is unlikely these fires have had a significant negative impact on local chukar populations or hunting opportunity.

## **Gray Partridge**

### **Population Surveys**

Sixteen gray partridge were observed along 397 miles of pheasant brood survey routes in 2018 (Table 11).

### **Harvest Characteristics**

An estimated 2,536 hunters harvested 12,749 gray partridge in 2018. Hunter participation increased by 47% and overall harvest increased by 37% compared to 2017. Birds per hunter day was 18% lower than 2017, and 31% below the 3-year average (Table 11).

### **Management Implications**

Gray partridge in southwest Idaho are typically associated with cereal grains adjacent to CRP lands or sagebrush rangeland. Deep and/or hardened snow adversely affects gray partridge over-winter survival and the amount of precipitation in late-spring and early summer influence gray partridge production. Recruitment of birds into fall is dictated by weather factors and the availability of suitable habitat (cereal grains and adequate cover).

## **Wild Turkey**

### **Population Surveys**

No trend surveys are in place to monitor turkey populations in the Southwest Region. Anecdotal observations and landowner comments suggest a steady increase in turkey numbers in recent years in areas of the region associated with agriculture.

### **Harvest Characteristics**

Two fall 2018 and 2 spring 2019 controlled turkey hunts were held in the Southwest Region during this reporting period. A general spring gobbler-only hunt was held in most GMUs in 2019. During fall 2018 controlled hunts, 159 hunters harvested 89 birds with an overall success rate of 56% a decrease of 11% from fall 2017. During spring 2019 controlled hunts, 202 hunters harvested 144 birds with an overall hunter success rate of 71%, an increase of 4% from spring 2018. General spring 2019 harvest in the Southwest Region showed a 41% increase compared to 2018. Similarly, overall hunter numbers were up 22% in spring 2019 compared to spring 2018 (Table 12).

### **Trapping and Translocation**

From December 2018 to February 2019, 100 turkeys (including one hen mortality in the trap) were trapped from private property in GMU 38, banded, and translocated to the South Fork of the Boise River on the border of GMUs 39 and 44. Sex ratio of translocated turkeys consisted of 31 toms, 58 hens, and 10 turkeys of undetermined sex. 29% of toms and 86% of hens

translocated were adults. Four tom bands were reported to the Southwest regional office following the 2019 spring turkey hunt, and one hen band of accidental harvest by a youth hunter.

### **Depredations**

Depredation and nuisance turkey complaints have been steadily increasing in recent years. Five turkey depredation or nuisance complaints were received during winter 2018-2019. Affected crops included winter wheat, peas, triticale, garden vegetables, and corn. The region addressed depredation and nuisance events with the following techniques: technical assistance, non-lethal hazing, direct hunters with controlled hunt permits, depredation hunts, kill permits, and trap and translocate.

In some areas of the region, turkey populations have been supported through supplemental feeding during severe winters. Supplemental feed was not distributed by IDFG during winter 2018-2019.

### **Management Implications**

Turkey numbers in the Southwest Region have fluctuated widely over the last several years, due in large part to hunt structures and seasons. General fall hunts throughout the region were converted to controlled hunts in 2006 and 2011 to address concerns about declining turkey populations. This led to a steady increase in turkey numbers in recent years. Numerous mild winters have also contributed to growing populations through high over-winter survival. Additional controlled hunts have been implemented and tag numbers increased in response to the growing population.

Regional personnel have supported enhancement of turkey habitat by planting food plots, specifically for wild turkey, and by completing habitat improvement projects on Department-owned lands. However, Department-owned lands make up only a small portion of turkey habitat in the Southwest Region. Hunter access is an ongoing challenge as most turkeys reside on private lands for at least part of the year and the greatest turkey population growth in the region has been in areas associated with private agriculture. The IDFG continues to pursue AccessYes! agreements with willing landowners as a mechanism to increase access to huntable turkey populations.

Turkey nuisance complaints have increased steadily over the last several years, primarily in areas around Cambridge, Midvale, Horseshoe Bend, Parma, and Idaho City. Because of this, tag numbers have been increased in an effort to keep turkey populations in check with social tolerance and available habitat. In areas with large numbers of chronically depredating turkeys, IDFG has trapped and translocated birds to public lands. Several areas in the Southwest Region have been identified as appropriate locations for future turkey transplants, including the South Fork Boise River drainage below Anderson Ranch Dam and the greater Idaho City area. Both of these areas supported huntable populations of turkeys in the past, but numbers have not rebounded since the elimination of the general fall hunt in GMU 39 in 2006.

## **Rabbits and Hares**

### **Population Surveys**

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

### **Harvest Characteristics**

Estimates from the telephone harvest survey indicate 543 cottontail rabbits harvested by 396 hunters in 2018 compared to 2,172 cottontails harvested by 717 hunters in 2017 (Table 14). No hunters reported harvesting hares in 2018; however, rabbit and hare hunting effort and reporting rates are low, harvest estimates are imprecise and may be misleading.

### **Management Implications**

The relatively low level of hunter harvest is expected to have little, if any, effect on overall population levels or population dynamics. 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.

## **Literature Cited**

Connelly, J.W., C. A. Hagen, and M. A. Schroeder. 2011. Characteristics and dynamics of greater sage-grouse populations *in* S. T. Knick and J. W. Connelly (editors) Greater Sage-Grouse: ecology and conservation of a landscape species and its habitats. Studies in Avian Biology (Vol 38), University of California Press, CA.

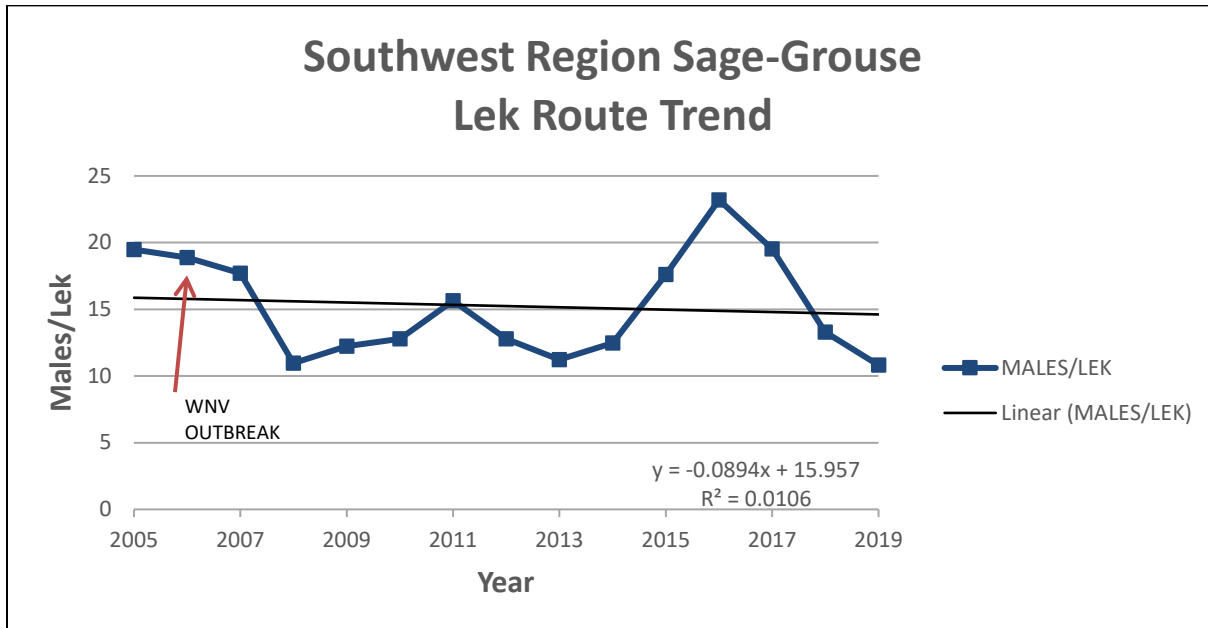


Figure 1. Average number of male sage-grouse per lek along 13 lek routes in the Southwest Region. West Nile Virus (WNV) emerged during summer 2006 followed by unusually dry spring and summer 2007.

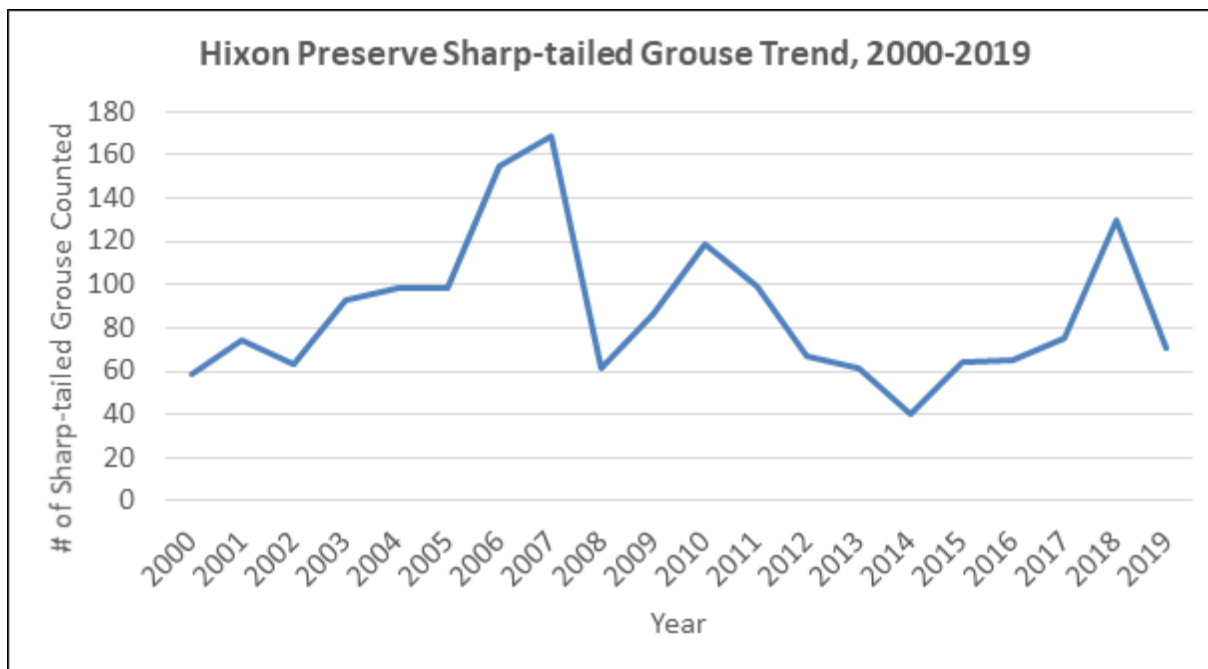


Figure 2. Total number of male sharp-tailed grouse on 4 leks at Hixon Sharptail Preserve, Washington County, Idaho, 2000-2018.

Table 1. Pheasant population characteristics and production, Southwest Region, 2009-present.

Season	Miles counted	Birds per mile	Percent	Juv:100	<i>n</i>	Average brood size
			unsuccessful females	adult females		
2009	520	0.6	13	657	309	4.5
2010	460	0.2	4	450	97	4.6
2011	460	0.4	25	416	170	3.9
2012	520	0.7	29	336	138	4.3
2013	520	0.3	7	228	164	3.0
2014	520	0.4	26	389	231	4.4
2015	430	0.4	24	286	193	3.6
2016	490	0.4	12	411	226	4.4
2017	475	0.1	89	55	69	5.0
2018	397	0.5	33	115	213	1.7
3-year avg.	454	0.3	45	194	169	3.7

Table 2. Estimated pheasant harvest, Southwest Region, 2009-present.

Season	Telephone survey		
	Hunters	Birds harvested	Birds per hunter day
2009	9,694	31,972	0.6
2010	7,979	24,011	0.6
2011	8,903	28,400	0.5
2012	8,580	27,885	0.7
2013	7,194	16,140	0.5
2014	7,037	22,064	0.6
2015	6,853	26,584	0.6
2016	5,752	22,826	0.9
2017	4,182	11,779	0.6
2018	4,638	14,971	0.6
3-year avg.	4,857	16,525	0.7

Table 3. Quail population characteristics and estimated harvest, Southwest Region, 2009-present.

Season	Brood routes		Telephone survey		
	Miles counted	Birds per mile	Hunters	Birds harvested	Birds per hunter day
2009	520	1.7	7,815	35,695	1.8
2010	460	3.0	6,551	58,413	1.8
2011	460	3.0	6,897	66,906	1.7
2012	520	3.9	7,095	97,055	2.5
2013	520	2.0	5,814	41,860	1.3
2014	520	2.7	6,341	50,881	1.5
2015	430	2.9	6,692	69,084	1.9
2016	490	2.1	4,984	53,687	2.6
2017	475	2.2	3,520	39,512	2.3
2018	397	2.7	3,788	39,075	2.0
3-year avg.	454	2.3	4,097	44,091	2.3

Table 4. Estimated forest grouse harvest, Southwest Region, 2009-present.

Season	Hunters	Birds harvested	Birds per hunter	Birds per hunter day
2009	8,703	18,411	2.1	0.4
2010	6,984	16,858	2.4	0.4
2011	5,454	19,361	2.6	0.5
2012	5,454	14,309	2.6	0.4
2013	6,167	12,747	2.1	0.3
2014	9,420	25,612	2.7	0.4
2015	6,654	21,520	3.2	0.5
2016	4,935	14,067	2.8	0.8
2017	3,637	14,881	4.1	1.0
2018	4,531	16,990	3.7	0.7
3-year avg.	4,368	15,313	3.5	0.8

Table 5. Forest grouse production in the Southwest Region based on wing collection, 2009-present.

Season	Blue Grouse			Ruffed Grouse	
	<i>n</i>	Juv:10 adult females	Juv:10 adults	<i>n</i>	Juv:10 adults
2009	502		261	103	177
2010	216		98	68	106
2011	179		290	151	340
2012	187		114	65	282
2013	165		132	194	173
2014	284		242	132	103
2015	301		189	229	182
2016	36		416	37	185
2017	75		241	24	200
2018	75		241	14	200
3-year avg.	62		299	25	195

Table 6. Southwest Region sage-grouse lek route data, 2009-present.

Route	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Big Jack's Creek	28	39	114	116	98	103	140	162	134	68
Big Sagehen	26	48	109	88	62	78	67	57	88	31
Brown's Creek	14	12	30	42	34	28	48	36	37	23
Cow Creek	61	69	52	13	25	51	45	65	42	26
Crane Creek	39	49	18	22	18	14	8	6	7	10
Midvale Hill	23	35	21	22	10	9	9	3	2	8
Monday Gulch	14	15	14	16	9	7	0	3	3	2
Oreana	40	63	74	68	61	82	109	124	103	62
Rocky Knoll	91	153	198	146	124	130	198	293	239	167
Roland Road	44	43	65	59	57	77	10	160	139	121
Sheep Creek	95	10	83	81	68	64	134	184	158	97
Soulen Center	22	30	23	16	9	9	16	19	12	14
Wickahoney	31	31	41	36	28	37	56	84	81	53

Table 7. Estimated greater sage-grouse harvest, Southwest Region, 2009-present.

Season	Check station <sup>a</sup>			Telephone survey			
	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds harvested	Birds per hunter day
2009	119	10	0.8	8.4	502	811	0.8
2010	62	35	0.6	10.1	222	171	0.4
2011	45	26	0.6	8.4	397	232	0.3
2012	46	43	0.9	5.1	361	363	0.6
2013	58	46	0.8	4.7	470	262	0.5
2014	48	40	0.6	4.9	219	398	0.5
2015	64	52	0.8	4.3	426	435	1.0
2016	60	47	0.8	7.3	409	381	0.8
2017	85	59	0.5	6.8	404	297	0.4
2018	59	48	0.6	5.2	398	369	0.5
3-year avg.	68	51	0.6	6.4	404	349	0.6

<sup>a</sup> Only Bruneau and Mud Flat check stations were operated from 2001-2008. Mud Flat Road operated from 2009-present. Riddle check station was operated in 2015 and 2016. Those data are not included here.

Table 8. Greater sage-grouse production based on wing collections, Southwest Region, 2009-present.

Season	Juv:100 females	Juv:100 adults	Percent unsuccessful females
2009	204	126	41
2010	141	127	63
2011	93	60	63
2012	113	69	36
2013	131	92	72
2014	210	141	26
2015	552	321	48
2016	100	61	84
2017	121	83	73
2018	87	56	48
3-year avg.	103	68	68



Table 9. Trends in sharp-tailed grouse lek counts, Hixon Sharptail Preserve, Southwest Region, 2009-present.

Year	Lower	Middle	Upper	Fairchild	Totals
2009	25	9	30	22	86
2010	35	19	38	27	119
2011	38	9	42	10	99
2012	32	9	16	10	67
2013	13	9	27	12	61
2014	12	6	16	6	40
2015	20	8	19	17	64
2016	25	6	19	15	65
2017	23	9	30	13	75
2018	40	15	46	29	130
3-year avg.	29	10	32	19	90

Table 10. Estimated chukar harvest, Southwest Region, 2009-present.

Season	Opening Weekend Voluntary Survey				Telephone Survey		
	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds harvested	Birds per hunter day
2009	25	51	2.0	2.4	5,521	46,574	1.6
2010	45	72	1.6	3.4	5,055	30,866	1.4
2011	35	77	2.2	2.4	6,084	65,586	1.6
2012	44	85	1.9	3.2	5,798	35,783	1.3
2013	25	43	1.7	3.5	4,831	16,663	0.6
2014	15	28	1.9	1.9	4,624	19,405	0.8
2015	20	45	2.3	2.0	5,943	33,167	1.1
2016	27	86	3.2	1.9	5,329	40,344	1.9
2017	23	40	1.7	1.7	3,016	29,303	1.7
2018	16	76	4.8	0.8	5,034	31,763	1.1
3-year avg.	22	67	3.2	1.5	4,460	33,803	1.6

Table 11. Gray partridge population characteristics and estimated harvest, Southwest Region, 2009-present.

Season	Production			Telephone Survey		
	Miles counted	Birds per mile	Birds counted	Hunters	Birds harvested	Birds per hunter day
2009	520	0.0	0	2,767	11,244	0.6
2010	460	0.07	35	2,813	12,836	0.8
2011	460	0.02	10	2,976	27,445	1.0
2012	520	0.3	144	3,138	19,993	1.3
2013	520	0.1	4	2,091	3,944	0.3
2014	520	0.1	58	1,830	4,751	0.3
2015	430	0.1	29	2,196	10,159	0.7
2016	490	0.05	26	2,217	15,356	1.8
2017	475	0.0	0	1,341	8,061	1.1
2018	397	0.04	16	2,536	12,749	0.9
3-year avg.	454	0.03	14	2,031	12,055	1.3

Table 12. Estimated turkey harvest, Southwest Region, 2009-present.

Year Hunt	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
2009						
Controlled Spring	2	135	110	69	6.0	415
General Spring			4,167	763	16.7	12,777
General Fall			1,190	408	11.0	1,471
2010						
Controlled Spring	2	135	104	63	7.4	469
General Spring			3,879	706	16.6	11,749
General Fall			1,251	291	14.3	4,165
2011						
Controlled Spring	2	135	114	101	4.0	409
General Spring			3,571	669	15.6	10,446
General Fall						
2012						
Controlled Spring	2	135	119	93	4.1	389
General Spring			3,331	621	14.9	9,263
Controlled Fall	2	145	81	49	3.2	260
2013						
Controlled Spring	2	135	124	95	4.9	469
General Spring			2,537	454	17.7	8,072
Controlled Fall	2	145	88	43	6.5	279
2014						
Controlled Spring	3	175	164	110	10.6	1,168
General Spring			3,458	741	12.2	9,791
Controlled Fall	2	145	83	43	6.6	283
2015						
Controlled Spring	3	175	123	126	4.6	545
General Spring			2,342	567	11.4	6,494
Controlled Fall	2	145	81	42	6.3	267
2016						
Controlled Spring	4	195	173	123	4.1	511
General Spring			3,100	585	16.1	9,453
Controlled Fall	4	210	132	66	5.8	384
2017						
Controlled Spring	4	195	145	106	3.6	384
General Spring			7,074	2,001	38.9	15,574
Controlled Fall	4	210	124	75	4.5	323
2018						
Controlled Spring	4	195	156	105	4.5	546
General Spring			3,156	684	16.8	9,286
Controlled Fall	4	285	159	89	4.2	
2019						
Controlled Spring	4	255	202	144	3.6	518
General Spring			9,863	1,121	8.8	9863

Table 13. Turkey translocation history into the Southwest Region, 2005-2010.

Year	Sub-species <sup>a</sup>	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
	M	Andrus WMA – 31 (DEC)	157	S
2008	R	Montour – 32 (FEB)	32	S
	R	Weiser Bass Pond – 32 (FEB)	23	N
2009	M	Andrus WMA (JAN)	156	S
2010	M	Andrus WMA (JAN)	75	S

<sup>a</sup> M = Merriam's, R = Rio Grande.

Table 14. Estimated cottontail rabbit and snowshoe hare harvest, Southwest Region, 2009-present.

Season	Cottontail rabbit		Snowshoe hare	
	Hunters	Cottontails harvested	Hunters	Hares harvested
2009	732	1,288	92	26
2010	770	2,347	83	0
2011	877	1,734	40	0
2012	623	2,781	107	165
2013	587	514	216	0
2014	418	1,336	1	0
2015	830	1,767	124	40
2016	689	2,887	238	3,942
2017	717	2,172	348	116
2018	396	543	7	0
3-year avg.	601	1,867	198	1,353

## MAGIC VALLEY REGION

### Trapping and Translocation

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

### Pheasant

#### Abstract

Pheasant numbers have declined substantially in the Magic Valley during the past 35 years. In the long-term, pheasant populations are expected to remain low given current farming practices. Occasional short-term increases will occur during years when the first alfalfa harvest is delayed by rain, allowing increased nesting success.

#### Population Surveys

August roadside surveys were conducted in the region from 1961-2012 to monitor fall pheasant population trends and forecast hunting seasons. The pheasants per mile (PPM) index 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. 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 more widespread. In 2012, the PPM index was 0.27 on eastern routes and 0.35 on western routes. Standardized august roadside surveys have not been conducted since 2012. However, the region did participate in a study conducted in partnership with Iowa State University, which required one route be run 9 times during late July to mid-August in 2019.

Winter sex ratio data was not collected during the 2018-2019 reporting period.

#### Harvest Characteristics

Both pheasant hunters and pheasant harvest have declined precipitously in the region since the mid-1980s. Since 2006, estimated harvest has declined by 71% and hunter participation has declined by 62% (Table 1). An estimated 2,628 hunters harvested approximately 10,358 pheasants in 2018. Pheasant hunters averaged 4.7 days in the field and 3.9 birds per hunter.

#### Release of Pen-reared Pheasants

Pheasant stocking to provide “put-and-take” hunting opportunity occurred at Niagara Springs WMA (2,224 pheasants). One hundred pheasants stocked at Niagara Springs WMA were provided for the youth-only pheasant season. Pheasants are no longer released on Bureau of Reclamation tracts in Minidoka County.

#### Management Studies

No management studies were conducted during this reporting period.

### **Management Implications**

Pheasant populations in the Magic Valley Region 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 in the Magic Valley during the 1950s and 1960s. Widespread use of sprinkler irrigation has resulted in larger field sizes, less linear habitat (fence rows and ditches), and fewer uncultivated weedy areas, reducing the quality and quantity of winter and nesting habitat. In addition, the number of acres of farmland planted to alfalfa has increased to support the needs of the growing dairy industry in the area. The increase in alfalfa acres has negatively affected pheasants because alfalfa is harvested earlier (mid- to late May instead of early June) and more frequently (four-five cuttings instead of three) now than it was 20 years ago. The result is fewer pheasants nest successfully in alfalfa, which is usually the best nesting cover available.

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

## **Quail**

### **Population Surveys**

No population surveys were conducted during the reporting period (Table 2).

### **Harvest Characteristics**

Quail populations in the region exhibit dramatic annual fluctuations in response to weather conditions during hatch. During 2009-2018, estimated harvest has ranged from 5,427 birds in 2015 to 19,642 birds in 2013. An estimated 13,618 quail were harvested in the Magic Valley Region in 2018, which is higher than the past 3 years and more than double the 2015 harvest estimate. An estimated 10.3 birds/hunter were harvested, with each hunter spending approximately 5.5 days afield.

### **Management Implications**

California quail in the Magic Valley Region are associated primarily with the Snake River and its major tributaries from Shoshone Falls to C.J. Strike Reservoir. 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 the 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. In May 2012 a trial drumming route was conducted along the Indian Springs and Oakley-Rogerson roads. Drumming grouse were heard at six of 10 stops.

### Harvest Characteristics

Forest grouse (dusky, ruffed, and spruce grouse) hunting has increased in popularity since the 1980s. In 2018, 1,075 hunters reported harvesting 2,618 forest grouse (Table 3). No forest grouse were reported at 2018 check stations.

Many forest grouse are taken incidental to other types of hunting. Additionally, survey data from 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 most spruce grouse reported by hunters were probably dusky grouse and were misidentified by hunters. Harvest data suggests at least 13% of the forest grouse harvested are misidentified.

### Management Implications

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

## Sage-grouse

### Abstract

Lek route data suggest sage-grouse populations in the Magic Valley Region exhibited substantial declines in 2007 and 2008, after increasing from 1995-2006. Sage-grouse numbers as indexed by lek route surveys were 22% lower in 2019 than in 2018, and 55% below numbers observed in 2006. Production, indexed from hunter-harvested grouse, has been poor in five of the past six years (1.20 juveniles/adult hen), falling well below the 1962-2012 average of 1.91 juveniles/adult hen. Opening weekend check station data showed another decline in hunter participation since more restrictive hunting seasons were implemented in 1996. Opening weekend participation in 2018 was similar to 2017. The long-term decline in sage-grouse populations is largely a result of substantial loss and fragmentation of sagebrush habitat from large wildfires and the subsequent proliferation of exotic annual grasses and other invasive species.

### Population Surveys

Lek route surveys were conducted in 2019 to monitor sage-grouse population trends. Since 2002, grouse counted on lek routes have fluctuated from a high of 2,388 males in 2006, to a low of 997 in 2019 (Figure 1). Grouse numbers observed on 2019 lek route surveys (997) were 22% lower than in 2018 (1,272).

Most leks do not occur on annual routes. These leks are surveyed in coordination with federal agency personnel and volunteers. In 2019, 102 individuals including Department biologists, conservation officers, reservists, state and federal land management agency personnel, and citizen volunteers participated in lek surveys. Counts on 667 leks were completed; approximately 73% of the leks identified in the region since 1950. Of the 667 leks visited, 250 (37.6%) were considered active (>1 male observed), and lek size ranged from 2-53 males, with an average of 4.5 males/lek or 11.6 males/active lek. During the past five years, more than 90% of the identified leks in the region have been surveyed.

Wings from hunter-harvested sage-grouse were collected at check stations and wing barrels to index annual production. From 1962-2012, production averaged 1.91 juveniles/adult female. Production in 2018 was estimated at 1.20 juveniles/adult female, similar to production estimate in 2017. The juvenile/adult female ratios have been below the 1962-2012 average in eight of the past 10 years.

### **Harvest Characteristics**

In 2018, two check stations (Salmon Dam and Shoshone Basin) were operated on opening weekend (September 16-17). Weather conditions for the opener were cool and sunny. No precipitation occurred before the opener, with warm, dry conditions persisting after a fairly wet spring. Opening weekend participation was comparable to 2017. All measures of hunter success (harvest, birds/hunter, hours/birds, birds observed/hour) were similar in 2018 compared to 2017 (Table 5). From a regional perspective, sage-grouse hunter numbers have been decreasing since 1996. Decreased hunter participation is likely a reflection of lower bird numbers and more restrictive seasons.

### **Management Implications**

Lek route data suggest an increasing trend in sage-grouse populations in the region from 1994-2006. Despite good production in 2006 (2.16 juveniles/adult female in the harvest), displaying males counted on lek routes declined by 32% in 2007. Lek route counts declined further in 2009 to a level 52% lower than in 2006. The cause of the decline is uncertain, but wide-scale habitat loss, and potentially West Nile Virus, were contributing factors. There has been a slight recovery in sage-grouse populations since 2007, but numbers are still 37% below 2006 numbers.

Habitat loss and fragmentation are the primary causes of long-term sage-grouse declines. Fires have consumed more than 1.7 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 650,000 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 work with state and federal land management agencies on projects affecting sage-grouse habitat.

Implementation of the *Conservation Plan for Greater Sage-grouse in Idaho* will continue to 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 research, and trap and translocation efforts up until 2013. On 30 comparable leks, counts declined 34% from 2007 (459 birds) to 2013 (303 birds). Three historic leks in western Twin Falls County (GMU 46) were monitored in April 2018. Surveys consisted of using pointing dogs to walk likely looking habitat around historic leks. Eleven birds were flushed at Bud Lewis Hill, but neither birds nor old sign were detected at or near the vicinity of two other historic leks. Four leks were monitored in GMU 54 as well using standard survey protocol. Birds were observed displaying at only one lek. Birds could be heard near another lek, but were not visually detected.

### **Harvest Characteristics**

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

### **Trapping and Translocation**

The Idaho sharp-tailed grouse translocation program began in 1991 with the goal of reestablishing populations in Idaho and other western states where suitable habitat exists. From 1991-2012, 1,405 sharp-tailed grouse (851 males, 554 females) were trapped in southeast Idaho for reintroduction projects in Idaho, Oregon, Washington, and Nevada. Reintroduction sites in the Magic Valley Region included Shoshone Basin (210 males and 149 females) and House Creek (160 males and 87 females) in Twin Falls County. Oregon, Washington, and Nevada trapped and relocated 321, 227, and 251 birds respectively. In 2013-2014, an additional 39 grouse were trapped for population augmentation efforts in Washington.

### **Management Implications**

Sharp-tailed grouse in the Magic Valley Region are closely tied to private properties enrolled in CRP, and mountain shrub communities on adjacent BLM and USFS lands. Establishment of CRP and mountain shrub habitat management will be paramount for sharp-tailed grouse populations moving forward. A statewide database of sharp-tailed grouse leks has been completed, which will help facilitate lek monitoring. Magic Valley regional staff will potentially initiate monitoring in the Shoshone Basin area during the next reporting period to assess status of reintroduction efforts. Anecdotal reports and periodic surveys indicate translocation efforts in GMUs 46 and 47 are largely unsuccessful. A few remnant birds remain, but not in significant numbers.

## **Chukar**

### **Population Surveys**

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

### **Harvest Characteristics**

Estimated chukar harvest during 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 chukar harvest in 2018 was 9,749 birds, similar to the estimated harvest in 2017 (Table 6).

### **Management Implications**

No specific chukar population surveys will be undertaken in the region. Weather-related factors are the most influential impacts on chukar populations. However, habitat improvement within chukar range will be encouraged to benefit populations.

## **Gray Partridge**

### **Population Surveys**

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

### **Harvest Characteristics**

Estimated harvest from 1985-2018 has ranged from 21,496 birds in 2017 to 2,742 birds in 2011, demonstrating the extreme population fluctuations observed in this species. In 2017, estimated harvest was 21,496 birds, almost two times higher than the 2016 estimated harvest of 10,886 birds. In 2018, harvest of gray partridge in the Magic Valley region dropped to 9,166 birds (Table 7).

### **Management Implications**

Weather-related factors have a substantial effect on short-term population fluctuations, but improving habitat remains key to sustaining healthy populations in the long term. The Magic Valley Region will continue to encourage habitat enhancement (e.g., HIP, IDFG/BLM Cooperative Wildlife Tracts Program, and Pheasants Forever) to improve conditions for gray partridge.

## **Wild Turkey**

### **Trapping and Translocation**

From 1988-2001, 152 Rio Grande turkeys were released at the Big Cottonwood WMA in GMU 54. Since 2004, 147 nuisance turkeys have been trapped and relocated to Goose Creek, Green Creek, and Shoshone Basin in GMU 54 (Table 8). No trapping or translocation activities occurred during this reporting period.

### **Harvest Characteristics**

From 2003-2018, three spring hunts have been authorized in GMU 54, including a youth-only hunt. Spring turkey hunting opportunity has increased commensurately with the turkey population. Turkey permit levels increased from 12 permits in 2003 to 78 by 2008. In 2014-2015, permits were decreased from 78 to 52 in response to habitat loss from the Cave Canyon Fire. However, spring permits increased in 2016 to a total of 90 (Table 9) as nuisance turkey complaints increased and anecdotal information suggested the population had recovered following the Cave Canyon Fire. From 2010-2012, a 50-permit fall hunt was authorized in the Goose Creek drainage to help reduce the number of nuisance turkeys. The fall hunt was discontinued in 2013.

### **Management Implications**

Opportunities to establish self-sustaining turkey populations in the Magic Valley Region are limited without supplemental feeding during winter. Releases in GMUs 53 and 55 have failed to establish populations. Turkeys near Pine and Featherville in GMU 43 have essentially disappeared because of the severity of winters and lack of winter food sources. It is believed the turkey population in GMU 54 has recovered following the Cave Canyon fire although habitat recovery has been slow. Winter habitat will continue to be the primary limiting factor for turkeys in GMU 54. There is no suitable, but currently unoccupied habitat for future turkey translocations at this time.

## **Cottontail Rabbits and Snowshoe Hares**

### **Population Surveys**

No population surveys were conducted during the reporting period.

### **Harvest Characteristics**

No cottontails or snowshoe hares have been checked at opening weekend check stations since 2002. In 2018, it was estimated 90 hunters harvested 250 cottontails. No hunters reported harvesting hares in 2018 (Table 10); however, rabbit and hare hunting effort and reporting rates are low, harvest estimates are imprecise and may be misleading.

### **Management Implications**

Habitat projects implemented for pheasants, gray partridge, and quail through HIP and the BLM/Department Cooperative Wildlife Management Program will benefit cottontail rabbits. Any efforts to restore native sagebrush-steppe habitat will also benefit cottontail rabbits. Protection or enhancement of riparian areas will benefit snowshoe hares.

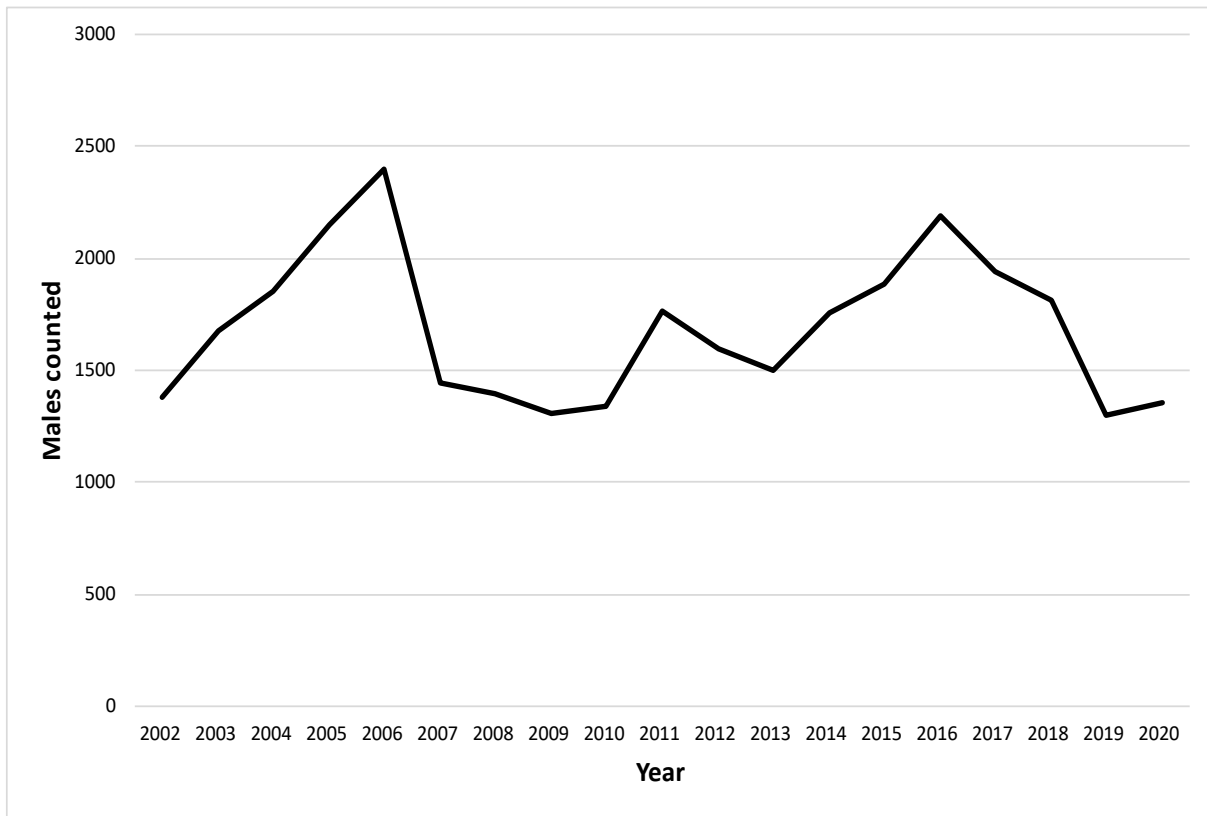


Figure 1. Total male greater sage-grouse counted on 23 lek routes, Magic Valley Region, 2002-present.

Table 1. Estimated pheasant harvest, Magic Valley Region, 2009-present.

Season	Hunters	Birds harvested	Birds per hunter	Birds per hunter-day
2009	3,407	12,787	3.8	0.6
2010	5,021	11,079	2.2	0.5
2011	5,014	15,630	3.1	0.6
2012	4,393	14,352	3.3	0.6
2013	4,082	8,366	2.1	0.4
2014	2,888	9,476	3.3	0.6
2015	3,300	11,655	3.5	0.6
2016	2,997	11,303	3.8	0.9
2017	2,684	11,192	4.2	0.8
2018	2,628	10,358	3.9	0.9
3-year avg	2,026	7,679	3.8	0.9

Table 2. California quail population characteristics and estimated harvest, Magic Valley Region, 2009-present.

Season	Brood routes		Telephone survey		
	Routes (miles) counted	Birds per mile	Hunters	Birds harvested	Birds per hunter-day
2009	28 (570)	0.25	1,122	7,939	1.3
2010	28 (569)	0.25	2,218	14,228	1.2
2011	30 (617)	0.21	1,425	8,965	1.2
2012	30 (621)	0.44	1,612	13,554	1.8
2013	n/a	n/a	1,585	19,642	2.1
2014			1,599	13,231	2.4
2015			1,688	5,427	0.8
2016			1,620	10,251	1.7
2017			1,693	10,198	1.3
2018			1,325	13,618	1.9
3-year avg		0.26	1,546	11,356	1.6

Table 3. Trend of upland game species harvested per 10 hunters checked at stations on opening weekend of the sage-grouse, quail, and partridge season, Magic Valley Region, 2009-present.

Season	Sage-grouse	Dusky grouse	Ruffed grouse	Chukar partridge	Gray partridge	Mourning dove	CA quail	Cottontail/pygmy rabbit <sup>a</sup>	Hunter numbers
2009	43.4	1.4	2.4	6.3	9.4	0.9	1.6	0.0	426
2010	41.1	4.5	1.1	20.6	15.7	0.6	9.1	0.0	350
2011	33.7	0.3	0.0	12.5	6.4	0.0	2.9	0.0	312
2012	40.9	2.7	3.2	0.0	0.0	1.4	0.0	0.0	221
2013	47.2	0	0	0	0	0	0	0	203
2014	63.0	0	0	0	0	0	0	0	159
2015	67.0	0	0	0	0	0	0	0	132
2016	57.2	0	0	0	0	0	0	0	159
2017	55.6	0	0	0	0	0	0	0	174
2018	52.6	0	0	0	0	0	0	0	212
3-year avg.	55.1	1.0	0.8	5.0	4.3	1.0	2.4		182

<sup>a</sup> The pygmy rabbit season was closed in 2002.

Table 4. Estimated forest grouse harvest, Magic Valley Region, 2009-present.

Season	Hunters	Birds harvested	Birds per hunter	Birds per hunter-day
2009	1,121	4,546	4.1	0.7
2010	1,825	5,285	2.9	0.5
2011	1,401	2,932	2.1	0.4
2012	1,401	8,225	5.9	0.3
2013	1,795	5,433	3.0	0.8
2014	2,465	4,767	1.93	0.6
2015	1,483	6,308	4.3	0.3
2016	1,713	5,841	3.4	0.7
2017	1,532	4,804	3.1	0.6
2018	1,075	2,618	2.4	0.7
3-year avg	1,440	4,421	3.0	0.7

Table 5. Estimated Greater sage-grouse harvest, Magic Valley Region, 2009-present.

Season	Check station			Telephone survey <sup>a</sup>			
	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds harvested	Birds per hunter-day
2009	382	185	0.5	7.2	1,106	1,024	0.5
2010	294	144	0.5	5.7	1,068	1,086	0.6
2011	256	105	0.4	8.2	853	644	0.4
2012	199	90	0.5	6.7	667	635	0.5
2013	203	96	0.5	5.7	874	733	0.5
2014	159	63	0.5	8.9	896	685	0.4
2015	132	67	0.5	5.5	1,017	976	0.5
2016	159	91	0.6	4.9	449	384	0.4
2017	174	117	0.6	6.0	476	411	0.5
2018	212	104	0.5	6.7	1,182	921	0.4
3-year avg	12	104	0.6	5.9	702	572	0.4

<sup>a</sup> Telephone survey data for 2003 is not available.

Table 6. Estimated chukar harvest, Magic Valley Region, 2009-present.

Season	Hunters	Birds harvested	Birds per hunter	Birds per hunter-day
2009	1,485	9,420	6.4	1.6
2010	1,887	11,767	5.2	1.2
2011	1,549	4,660	3.0	0.6
2012	1,992	6,493	3.3	0.8
2013	1,832	23,477	12.8	1.8
2014	1,645	6,183	3.8	0.6
2015	1,373	4,319	3.2	0.4
2016	1,263	10,072	8.0	1.7
2017	1,326	9,235	7.0	1.2
2018	1,719	9,749	5.7	1.0
3-year avg	1,436	9,685	6.9	1.3

Table 7. Gray partridge population characteristics and estimated harvest, Magic Valley Region, 2009-present.

Year/ Season	Production					Telephone survey		
	Routes (miles) counted	Birds per mile	Birds	Brood size	<i>n</i>	Hunters	Birds harvested	Birds per hunter day
2009	28 (570)	0.10	56	9.0	3	1,178	3,980	0.6
2010	28 (569)	0.25	145	8.9	7	2,529	18,792	1.2
2011	30 (617)	0.12	70	6.6	8	397	2,742	1.8
2012	30 (621)	0.35	198	9.9	14	1,426	8,246	0.8
2013	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2014						2,134	5,917	0.8
2015						1,969	6,164	0.4
2016						2,140	10,886	0.9
2017						1,811	21,496	1.5
2018						1,405	9,166	1.0
3-year avg						1,785	13,849	1.1

Table 8. Turkey translocation history for the Magic Valley Region, 1982-2009.

Year	Sub-species <sup>a</sup>	Release site-GMU	Number of birds released	New or supplemental release
1982	R	Niagara Springs-53	20	N
1983	R, M	Almo-55	19	N
1984	R	Almo-55	10	S
1988	R	Big Cottonwood-54	17	N
1994	R	Big Cottonwood-54	6	S
1995	R	Big Cottonwood-54	14	S
1996	R	Big Cottonwood-54	8	S
1998	R	Big Cottonwood-54	55	S
1999	R	Big Cottonwood-54	12	S
2001	R	Big Cottonwood-54	40	S
2004	R	Goose Creek-54	8	N
2007	R	Green Creek-54	17	N
2008	R	Green Creek-54	64	N
2009	R	Green Creek-54	17	S
2015	R	Goose Creek-54	41	S

<sup>a</sup> M = Merriam's; R = Rio Grande.



Table 9. Estimated turkey harvest, Magic Valley Region, 2009-present.

Year Hunt <sup>a</sup>	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
2009						
Controlled	2	48	39	14	14.8	207
Controlled (youth)		30	25	13	6.3	82
2010						
Controlled (spring)	2	48	44	17	17.0	205
Controlled (youth)	1	30	30	5	25.0	125
Controlled (fall)	1	50	48	11	2.8	32
2011						
Controlled (spring)	2	48	43	18	10.8	195
Controlled (youth)	1	30	23	8	10.6	85
Controlled (fall)	1	50				
2012						
Controlled (spring)	2	48	34	7	19.0	133
Controlled (youth)	1	30	28	4	26.5	106
Controlled (fall)	1	50	19	4	17	68
2013						
Controlled (spring)	2	48	36	5	44.2	221
Controlled (youth)	1	30	20	4	29.0	116
Controlled (fall)	1	50	27	5	49.8	249
2014						
Controlled (spring)	2	32	27	6	41.3	248
Controlled (youth)	1	20	17	9	8.7	79
Controlled (fall) <sup>a</sup>	0					
2015						
Controlled (spring)	2	2	32	25	14	
Controlled (youth)	1	1	20	17	10	
2016						
Controlled (spring)	2	60	54	22	11.9	262
Controlled (youth)	1	30	26	9	9.5	86
2017						
Controlled (spring)	2	60	46	11	15.7	176
Controlled (youth)	1	30	27	9	12.7	111
2018						
Controlled (spring)	2	60	55	12	12.8	156
Controlled (youth)	1	30	17	7	9.8	67
2019						
Controlled (spring)	2	60	41	8	19	152
Controlled (youth)	1	30	23	3	32.7	98

<sup>a</sup> No controlled hunt offered fall 2014 or subsequent years.

Table 10. Estimated cottontail rabbit and snowshoe hare harvest, Magic Valley Region, 2009-present.

Season	Cottontail rabbit		Snowshoe hare	
	Hunters	Cottontails harvested	Hunters	Hares harvested
2009	549	3,291	0	0
2010	80	6,018	35	102
2011	397	2,742	105	98
2012	878	4,694	174	1,338
2013	367	842	27	27
2014	643	2,963	54	55
2015	1,513	9,147	0	0
2016	443	632	120	0
2017	348	1,044	116	116
2018	90	250		
3-year avg	294	642		

## **SOUTHEAST REGION**

### **Climatic Conditions**

Environmental conditions during the critical nesting period were warmer and drier than average during spring 2018.

### **Pheasant**

#### **Abstract**

Subjective evaluation of pheasant numbers indicates relatively stable populations in isolated parts of the Southeast Region. No hunter check stations were operated on opening weekend. A telephone harvest survey was conducted to provide estimates of total regional harvest, effort, and participation.

#### **Population Surveys**

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

#### **Harvest Characteristics**

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

A telephone harvest survey estimated 2,427 hunters harvested 6,526 pheasants in 2018 (Table 1). These data suggest harvest decreased 14% from the 7,626 birds harvested in 2017.

#### **Release of Pen-reared Pheasants**

There were 3,944 fully-grown game-farm cocks released on the Sterling WMA during fall 2018. Game-farm birds have been released on the WMA historically to provide hunters with additional opportunity. The bag limit for pheasants on the WMA remained two birds. Adults hunting on WMAs where game-farm pheasants were released were required to obtain a WMA pheasant permit.

#### **Management Implications**

Declining habitat quality due to changes in farming practices has resulted in a decline in pheasant numbers, from levels observed prior to the 1990s, in the Southeast Region. Until the quantity and quality of available habitat increases, pheasant numbers will likely remain below historic levels. Over 40,000 acres were enrolled in CRP in the Southeast Region during 1985-1995 (25% has potential as pheasant habitat), but its effect on pheasant production is unclear at this time. The CRP program has been extended and modified several times since the original enrollment. The CRP State Acres For wildlife Enhancement (SAFE) program (provides for a more wildlife friendly vegetation mix and currently has more than 110,000 acres enrolled in the Southeast Region (a portion of the more than 280,000 acres enrolled in the Southeast Region in the CRP program as a whole). It is currently unknown what impact a decrease in CRP acreage in the Southeast Region would have on pheasant populations. The HIP program, initiated by IDFG in 1987, also contributes toward increasing available cover and forage by capitalizing on private land habitat development.

## **Forest Grouse**

### **Population Surveys**

Data on age characteristics of forest grouse populations are collected in the Southeast Region from hunters who voluntarily place wings from harvested birds in wing barrels during annual hunting seasons. Thirteen wing barrels were placed throughout the region during the 2018 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 27 dusky (blue) and 476 ruffed grouse wings were collected in 2018 (Table 2).

### **Harvest Characteristics**

In recent years, forest grouse harvest data has been collected from two sources, the telephone harvest survey and wing barrels. Survey data provides information on numbers of hunters, birds harvested, and hunter success. Wing barrels provide more immediate feedback to managers, plus information on sex and age of birds harvested (Table 2).

Telephone harvest survey data estimated 1,428 hunters harvested 8,398 forest grouse in 2018 (Table 3). These data suggest harvest in the Southeast Region increased 90% from 4,417 birds in 2017.

### **Management Implications**

Management of forest grouse consists largely of data collection and analysis of impacts to habitat. Hunter effort and harvest vary annually and are likely dependent on annual production. Variable annual production is based on habitat and weather conditions, and can cause populations of forest grouse to vary broadly.

## **Sage-grouse**

### **Abstract**

The estimate of sage-grouse production in 2018 was 2.3 juveniles/hen, an increase from the 0.7 juveniles/hen recorded in 2017. However, these data are based on very low sample sizes. Numbers of male sage-grouse counted on leks in spring 2019 were lower than 2018 counts. Estimated sage-grouse harvest increased in 2018 when compared to harvest estimated from 2017.

### **Population Surveys**

In recent years, 13 lek count routes have been monitored/counted annually. These include four routes focused on the Curlew population, five focused on the East Idaho Uplands, and four focused on the Big Desert. These include 22 leks in Bingham, Power, and Oneida counties (Table 4), 48 leks in Butte and Blaine counties (Table 5), and 12 leks in Bear Lake and Caribou counties (Table 6).

Reproductive information for sage-grouse has been derived from wing collections at wing barrels and a hunter check station. Due to a closure of hunting on the Big Desert from 1996–2001, no wings were collected from that area during that period. Following the reopening of the Big

Desert in 2002, wing collection has been variable. There were 63, 44, 59, 47, 49 and 56 wings collected in 2013-2018, respectively (Table 7).

The Curlew Grasslands were opened to hunting from 2008-2013, but were closed beginning with the 2014 season, due to declining lek counts. 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 area includes portions of Bingham, Franklin, and Bannock counties and all of Caribou and Bear Lake counties (Table 8).

Sage-grouse wings were collected in the Southeast Region in 2018 (Table 8). The overall ratio of juveniles:100 adult hens was 236 in 2018. This is an increase from estimated production in 2017. However, this production estimate could be confounded by a small sample size.

### **Harvest Characteristics**

A hunter check station was operated at American Falls on opening weekend of the season between 2008 and 2016, but was discontinued due to low hunter numbers. 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. The 2018 season structure consisted of a seven-day, one-bird daily limit, with a two bird possession limit during the third week in September.

Telephone harvest survey estimates indicate 190 hunters harvested 187 sage-grouse in 2018 (0.5 birds per hunter day; Table 9). These estimates suggest participation was steady between 2017 and 2018, while harvest was up somewhat (from 173 to 187 birds).

### **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. During 2005-2006, 32 sage-grouse were captured and radio-collared in winter in the Greater Curlew area.

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

In spring 2017 and 2018, an additional project was conducted in the Greater Curlew area. Transmitters (GPS or VHF) were attached to sage-grouse in an effort to observe habitat use, breeding success, and survival. Twenty-nine female and one male sage-grouse were captured, marked, and followed in 2017. An additional 28 females and three males were marked in spring 2018. This project was completed in coordination with USFS and BLM personnel and utilized both VHF and PTT transmitters.

## **Management Implications**

Sage-grouse production estimates in the Southeast Region rose substantially from 0.7 juveniles/hen in 2017 to 2.36 juveniles/hen in 2018. However, these estimates are based on small, regional sample sizes and combined statewide estimates suggest production was very similar in 2018 (1.17 juveniles/hen) when compared to 2017 (1.13 juveniles/hen). Harvest in the Big Desert has been variable since reopening in 2002. A continuing decline in lek counts in the Curlew Valley led to a recommendation to close the area to hunting in 2002, but in 2008 a restrictive hunting season was re-established following increasing lek count trends. The Curlew Valley hunting season was closed again prior to the 2014 season after lek counts in the area declined. Persistent drought during the late 1980s and early 1990s, and long-term declines in habitat quantity/quality may partially explain the downward trend of populations over the years.

Local working groups (LWG), consisting of representatives of several interest groups and government agencies, were formed in the late 1990s to examine status and trend of sage-grouse and their habitat in Idaho, and to offer suggestions for future management. In southeast Idaho, three LWGs - Big Desert, Curlew Valley, and East Idaho Uplands - remain active, and pursue actions and recommendations that target sage-grouse conservation within the region. In 2003, the Idaho Sage-grouse Advisory Committee was formed, consisting of a representative from each LWG across the state, including the three LWGs in the Southeast Region, as well as interest groups and government agencies. A draft sage-grouse conservation plan was sent out for public comment in March 2006; the final plan was adopted and signed by Governor Risch on July 10, 2006. It can be found on IDFG's website at:

[http://fishandgame.idaho.gov/cms/hunt/grouse/conserv\\_e\\_plan/](http://fishandgame.idaho.gov/cms/hunt/grouse/conserv_e_plan/).

## **Sharp-tailed Grouse**

### **Abstract**

Age-ratio data from wings of harvested individuals indicated sharp-tailed grouse production during 2018 was lower when compared to 2017, but was quite similar to the 10-year average (Table 9). No lek routes in the region were checked during spring 2019; however, regional staff continued the effort to update the lek database.

### **Population Surveys**

Data from wing barrels placed throughout the region provide the majority of available data. The IDFG has also sent out random surveys asking for hunters to mail in wings to add to the sample. Data analysis of sharp-tailed grouse wings (354 in 2018) indicated the ratio of juveniles per 100 adults was lower in 2018 (99:100) when compared to 2017 (180:100). The 2017 ratio was much higher than the 10-year average of 97:100, while the 2018 ratio was quite similar. No lek routes in the region were surveyed during 2019, as staff continued to focus on determining the status of leks that had very few records or recent observations in the lek database (Table 10). Staff are working to determine the status of all leks in the region prior to implementing an annual randomized survey of leks in the region.

### **Harvest Characteristics**

For the Greater Curlew area, the telephone harvest survey estimates indicate 430 hunters harvested 984 sharp-tailed grouse in 2018 (0.8 birds per hunter day). This is an increase from 2017 when 375 hunters harvested 739 sharp-tailed grouse (0.7 birds per hunter day; Table 11).

Outside the Greater Curlew area, telephone harvest survey estimates indicate 439 hunters harvested 908 sharp-tailed grouse in 2018 (0.7 birds per hunter day). This represents an increase in both hunter participation and harvest when compared to 2017 when 384 hunters harvested 558 sharp-tailed grouse (0.6 birds per hunter day; Table 11).

For the region, telephone harvest survey estimates indicate 869 hunters harvested 1,893 sharp-tailed grouse in 2018 (0.8 birds per hunter day). This is an increase from the 759 hunters that harvested 1,297 sharp-tailed grouse in 2017 (0.6 birds per hunter day; Table 12).

### **Management Implications**

Currently, the single most important factor affecting sharp-tailed grouse populations in the Southeast Region is believed to be CRP enrollment. During 1985–1997, over 40,000 acres of cropland were planted with various grass/forb mixtures within present sharp-tailed grouse range. During the 1997 reenrollment period, 288,978 acres were accepted for another 10 years. Much of this acreage lies within sharp-tailed grouse range. The existing CRP acreage in the Southeast Region will decrease over the next few years; this is anticipated to have some impact on sharp-tailed grouse. The CRP-SAFE program currently has more than 110,000 acres enrolled in the Southeast Region (nearly 40% of the >280,000 acres enrolled in the region in the CRP program as a whole).

### **Trapping and Translocation**

A 5-year effort to satisfy a request from Nevada Department of Wildlife to translocate sharp-tailed grouse from southeast Idaho to the Bull Run Basin in north-central Nevada as part of a range expansion effort was concluded in spring 2017. In 2017, 24 birds were translocated to Nevada.

## **Chukar**

### **Population Surveys**

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

### **Harvest Characteristics**

Telephone harvest survey estimates indicate 263 hunters harvested 2,027 chukars in 2018 (1.7 birds per hunter day; Table 13). According to the survey, the number of birds harvested

increased dramatically between 2017 and 2018 (95% increase). Large swings in annual harvest estimates with chukars are likely due to small sample sizes from the region.

### **Management Implications**

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

## **Gray Partridge**

### **Population Surveys**

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

### **Harvest Characteristics**

Annual estimates vary widely, due primarily to small sample sizes from the region. Annual telephone harvest surveys indicated approximately 1,019 hunters harvested 3,440 gray partridge in 2018 (1.2 birds per hunter day, Table 13). This is a dramatic increase in hunters, harvest, and harvest rates from 2017 and likely represents a poor sample from one or both years.

### **Management Implications**

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

## **Wild Turkey**

### **Abstract**

During fall 2018 and spring 2019 turkey seasons, five controlled hunts with 345 permits were offered in the Southeast Region. During these controlled hunts, 137 hunters harvested 67 turkeys. During this same time period, 2,107 hunters harvested 814 turkeys on general hunts. Both participation and harvest increased compared to the previous year. 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 good-quality turkey habitat was limited and populations had not continued to grow at rates documented following the initial introduction. No surveys have been conducted in that area since. Even under good snow conditions, surveys provide limited useful data.

Incidental reports indicate increasing numbers and range expansion of turkeys throughout GMUs 70, 71, 73, 74, 75, 77, and 78; however, no population surveys are conducted in this area. Turkeys are occasionally observed in the northeast corner of GMU 76 and the northcentral portion of GMU 66A. These turkeys are likely dispersing from Star Valley in Wyoming. Bird



numbers are small and the winters in this area may greatly limit their ability to establish robust populations.

### **Harvest Characteristics**

Following introductions of wild turkeys in GMU 77 from South Dakota, three consecutive spring hunts with five permits each were initiated in Franklin County in 1995. In 1999, permits were increased to 20 and the hunt area was expanded to include all of GMUs 73, 74, 75, and 77. In 2000, permits were increased to 30 for each hunt, and a general fall either-sex hunt was initiated. The permit level was increased to 50 per hunt in 2002. In 2006, a general gobbler hunt was initiated for GMUs 73, 74, 75, 77, and 78. In 2004, three controlled spring hunts with five permits each were added in GMU 71. In 2007, there were six controlled hunts with a total of 195 permits available in the Southeast Region. In 2008, controlled hunts were increased to eight, with 395 available permits. Permit levels were increased in some hunts, and two new fall hunts in GMU 71 were instituted to deal with wild turkey complaints and issues. In 2010, permit levels were increased to 470 within the same eight controlled hunts and by 2015 there were nine controlled hunts with 620 tags. In 2016, spring hunts in GMU 71 were made general hunts, reducing the number of controlled tags and hunts in the region. Also in 2016, GMU 70 was included in the general spring turkey hunt (first turkey hunting in GMU 70) and general fall turkey hunting was allowed in GMUs 73, 74, 75, 77, and 78. In spring 2018, the general spring turkey hunt in GMU 70 was discontinued.

As estimated by the telephone harvest survey, 2,107 hunters harvested 814 turkeys during fall 2018 and spring 2019 general hunts, while 137 hunters harvested 67 turkeys during controlled hunts in the same time period. The number of hunters and harvest increased for general hunts (15% and 26%, respectively) and decreased for controlled hunts (20% and 18%, respectively) as compared to hunter numbers and harvest from the previous year (Table 14).

### **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 (Table 15).

GMU

### **Management Implications**

Various translocations have occurred within the Southeast Region to establish a harvestable population of wild turkeys. These efforts were successful and turkey numbers remain stable to increasing, with their range and distribution expanding annually throughout the region. The newest challenge in turkey management within the Southeast Region is dealing with wild turkey depredation issues and recreational feeding issues, which are often related. During winter 2018-2019, several large depredation hunts occurred in the Cub River areas of GMU 77 to address turkey depredations. Additionally, the population in GMU 71 has grown substantially enough that fall either sex hunts have been established to reduce population size and associated landowner complaints. Similarly, there have likely been significant increases to turkey populations in GMU 77 as landowner complaints have increased dramatically; IDFG is exploring

options to address these concerns. Typically, complaints are associated with turkey presence in, on, and around homes rather than crop damage.

## **Cottontail Rabbits and Snowshoe Hares**

### **Population Surveys**

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

### **Harvest Characteristics**

Sample size tends to be small and estimates of participation and harvest vary widely. Telephone harvest surveys estimated 40 hunters harvested 82 cottontail rabbits in 2018. These levels of participation and harvest are decreases from 2017 when 202 hunters harvested 354 cottontail rabbits. These levels of harvest are significant departures from the long-term averages (Table 16). These telephone surveys also suggest 34 hunters hunted, but did not harvest any snowshoe hares.

### **Management Implications**

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

Table 1. Estimated pheasant harvest, Southeast Region, 2009-present.

Season	Check station <sup>a</sup>			Telephone survey		
	Hunters	Birds harvested	Birds per hunter Hours per bird	Hunters	Birds	Birds per hunter day
2009				3,975	12,727	0.6
2010				4,894	16,729	0.6
2011				4,191	13,234	0.7
2012				3,353	12,954	0.8
2013				3,969	12,814	0.8
2014				2,885	11,253	0.9
2015				3,738	14,133	0.7
2016				2,765	13,480	1.0
2017				1,856	7,626	0.9
2018				2,427	6,526	0.6
3-year avg.				2,349	9,211	0.8

<sup>a</sup> No check stations were operated after 2006.

Table 2. Forest grouse production based on wing collection, Southeast Region, 2009-present.

Season	Dusky grouse			Ruffed grouse	
	<i>n</i>	Juv:100 adult females	Juv:100 adults	<i>n</i>	Juv:100 adults
2009	26		117	184	360
2010	40		264	268	186
2011	20		123	87	222
2012	260		141	895	255
2013	20		400	218	195
2014	50		212	319	118
2015	50		117	30	173
2016	40		122	272	284
2017	20		111	308	
2018	5		150	454	328
3-year avg.	22		128	345	306

Table 3. Estimated forest grouse harvest, Southeast Region, 2009-present.

Season	Hunters	Birds harvested	Birds per hunter	Birds per hunter day
2009	2,817	8,431	3.0	0.5
2010	3,126	7,144	2.3	0.4
2011	3,752	11,151	3.0	0.3
2012	3,752	29,868	8.0	0.8
2013	4,665	12,902	2.8	0.4
2014	4,000	10,174	2.5	0.6
2015	2,991	12,061	4.0	0.4
2016	2,701	9,658	3.6	0.7
2017	1,891	4,417	2.3	1.5
2018	1,428	8,398	5.9	1.3
3-year avg.	2,007	7,491	3.9	1.2

Table 4. Maximum number of male greater sage-grouse counted on lek routes in Bingham, Power, and Oneida counties, Southeast Region, 2010-present.

Year	Herriott Lake	Jougalard Lake	Rock Lake	Mosby Well #2	Curlew Route <sup>a</sup>	Rockland Route <sup>b</sup>
2010	46	0	63	0	10	75
2011	51	0	76	0	63	95
2012	46	0	63	0	65	71
2013	59	0	56	0	21	59
2014	47	0	55	4	22	53
2015	49	0	41	1	5	49
2016	45	0	52	0	1	37
2017	15	0	27	0	0	29
2018	23	0	27	0	0	30
2019	16	0	11	0	0	52
3-year avg.	18	0	22	0	0	37

<sup>a</sup> South 13, North 13, Baker, Little Rock Spring, Ketchum, Huffman Springs, West Huffman.

<sup>b</sup> Marble, Exchange, Smith/Pett, South Funk, North Funk, East Jacobson, West Jacobson, North Huffman, West Strong.

Table 5. Maximum number of male greater sage-grouse counted on lek routes in Butte and Blaine counties, Southeast Region, 2010-present.

Year	Route #1 <sup>a</sup>	Route #2 <sup>b</sup>	Route #3 <sup>c</sup>	Route #4 <sup>d</sup>	Route #5 <sup>e</sup>	Fingers Butte <sup>f</sup>
2010	159	43	118	14	136	370
2011	208	63	171	6	151	314
2012	177	85	92		111	311
2013	175	90	108	38	127	294
2014	20	103	103	16	74	285
2015	178	81	10	0	70	210
2016	218	104	98	30	104	237
2017	169	43	106	8	54	184
2018	78	19	85	0	41	142
2019	82	20	77	18	24	91
3-year avg.	110	27	89	9	40	139

<sup>a</sup> Frenchman's, Detmer's Dugout, Watertank, Quaking Aspen Airstrip, Detmer's, West Big Lake, Big Lake.

<sup>b</sup> East Big Lake, McCarty, Big Lake, Dugout, Rocky Lake.

<sup>c</sup> Sunset Lake, Ryegrass, Prairie, South Crossroads, Crossroads, South Big Lake.

<sup>d</sup> Reynolds, Lava Bluff, Osborne, Pitfall, Wakkinen, Firebomb, Turnaround, Weather Station.

<sup>e</sup> 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.

<sup>f</sup> 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 6. Maximum number of male greater sage-grouse counted on lek routes in Bear Lake and Caribou counties, Southeast Region, 2010-present.

Year	Bloomingt on Bottoms	Bloomington Mine	Sheep Creek	Trail Creek	Slug Creek #1	Slug Creek #2
2010	50	37	42	0	0	0
2011	25		57	1	0	0
2012	16	12	52	0	0	0
2013	23	8	72	0	0	0
2014	5	14	65	0	0	0
2015	0	27	120	0	0	0
2016	1	30	112	0	0	0
2017	0	24	53	0	0	0
2018	0	16	78	0	0	0
2019	0	5	36	0	0	0
3-year avg.	0	15	56	0	0	0

Table 7. Greater sage-grouse production based on wing collections, Southeast Region, 2009-present.

Year	<i>n</i>	Juv:10 females <sup>a</sup>	Juv:10 adults <sup>b</sup>	<i>n</i>	Percent unsuccessful females <sup>a</sup>
Power/Bingham (Big Desert) GMU <sup>c</sup>					
2009	72	346	167	14	69
2010	141	276	182	33	49
2011	30	92	67	13	92
2012	67	45	37	40	80
2013	46	84	46	16	43
2014	44	110	76	17	53
2015	59	132	74	19	68
2016	47	45	24	20	85
2017	49	70	4	20	75
2018	56	22	14	15	71
Holbrook (Curlew) GMU					
2009 <sup>d</sup>	5	NA	NA	NA	NA
2010	8	167	167	3	0
2011	25	40	32	15	80
2012	8	10	60	3	67
2013	17	50	41	10	70
2014	closed				

<sup>a</sup> Females = adults + yearlings.

<sup>b</sup> Adults = adults + yearlings.

<sup>c</sup> Harvest closed in 2002, then reopened in 2008 and closed again in 2014.

<sup>d</sup> Inadequate sample size.

Table 8. Estimated greater sage-grouse harvest, Southeast Region, 2009-present.

Season	Daily bag <sup>a</sup>	Check station				Telephone survey		
		Hunters	Birds	Birds per hunter	Hours per bird	Hunters	Birds	Birds per hunter day
2009	1	55	19	0.4	9.6	378	340	0.5
2010	1	70	20	0.3	8.7	517	747	0.7
2011	1	28	10	0.4	8.7	351	211	0.3
2012	1	43	19	0.4	7.2	336	276	0.4
2013	1	46	22	0.5	5.2	299	205	0.3
2014	1	48	21	0.4	8.0	216	117	0.3
2015	1	45	12	0.3	15.7	223	217	0.5
2016	1	26	12	0.5	8.4	161	108	0.4
2017	Discontinued after 2016 Harvest Season					166	173	0.5
2018						190	187	0.5
3-year avg.	1	40	15	0.4	10.7	172	156	0.5

<sup>a</sup> The Curlew Grassland was closed to harvest in 2002. The season opened in 2008 followed by a closure in 2014

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

<sup>c</sup> Includes only Zone 5A (curlew area) which reopened to hunting in 2008 (closed again in 2014), while Zone 5 closed in 2008 due to lack of population data.

Table 9. Sharp-tailed grouse production based on wing collections, Southeast Region, 2009-present.

Year	Juveniles:100 adults <sup>a</sup>	<i>n</i>
2009	114	370
2010	81	609
2011	59	384
2012	103	264
2013	82	349
2014	127	301
2015	47	215
2016	82	230
2017	180	255
2018	99	354
3-year average	120	280

<sup>a</sup> Includes data from Malad City area and Pocatello Creek.

Table 10. Maximum number of sharp-tailed grouse counted on lek routes in Oneida, Power, and Bannock counties, Southeast Region, 2009-2018.

Year	Arbon route <sup>a</sup>	Curlew route <sup>b</sup>	Pocatello Valley route <sup>c</sup>	Rockland route <sup>d</sup>	Downey route <sup>e</sup>
2009			42		108
2010			65		107
2011			77		106
2012			71		88
2013 <sup>f</sup>			59		89
2014 <sup>f</sup>			69		74
2015			42		71
2016			45		72
2017			54		54
2018				Discontinued	
3-year avg.			62		72

<sup>a</sup> Symantha's, Ag, Howe, Cow, 1994.

<sup>b</sup> Duffin, Vanderhoff, Hill, Bowen, N-13.

<sup>c</sup> Thorpe, Davis, Jensen, N. Peterson, Peterson, Marble.

<sup>d</sup> No Name, Roy, Benson, Quiet, Daryl.

<sup>e</sup> 1B021, 1B026, 1B027, 1B028, 1B033, 1B036, 1B039

<sup>f</sup> Trapping occurred on some of these leks for translocation to Nevada

Table 11. Estimated sharp-tailed grouse harvest Greater Curlew area, Southeast Region, 2009-present.

Season	Greater Curlew area <sup>a</sup>				
	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2009	642	1,501	1,779	2.3	0.8
2010	645	2,154	1,724	3.3	1.3
2011	545	982	1,352	1.8	0.7
2012	545	1,510	1,417	2.8	1.1
2013	513	1,050	1,354	2.0	0.8
2014	388	1,183	1,185	3.1	1.0
2015	373	785	1,075	2.1	0.7
2016	319	495	796	1.6	0.6
2017	375	739	1,029	2.0	0.7
2018	430	984	1,159	2.3	0.9
3-year avg.	375	739	995	2.0	0.7
Season	Outside the Greater Curlew area <sup>b</sup>				
	Hunters	Birds harvested	Hunter days	Birds per hunter	Birds per hunter day
2009	735	2,123	2,130	3.0	1.0
2010	671	2,165	2,041	3.2	1.1
2011	510	708	1,173	1.4	0.6
2012	630	1,424	1,952	2.3	0.7
2013	491	890	1,356	1.8	0.7
2014	486	1,200	1,385	2.5	0.9
2015	496	880	1,354	1.8	0.7
2016	354	791	1,262	2.2	0.6
2017	384	558	992	1.5	0.6
2018	439	909	1,286	2.1	0.7
3-year avg.	392	753	1,180	1.9	0.6

<sup>a</sup> Sharptail grouse reporting Zone A.

<sup>b</sup> Sharptail grouse reporting Zone B



Table 12. Estimated sharp-tailed grouse harvest, Southeast Region, 2009-present.

Season	Telephone survey		
	Hunters	Birds	Birds per hunter day
2009	1,378	3,624	0.9
2010	1,316	4,319	1.2
2011	1,055	1,690	0.7
2012	1,175	2,935	0.9
2013	1,04	1,940	0.7
2014	874	2,384	0.9
2015	869	1,665	0.7
2016	673	1,286	0.6
2017	759	1,297	0.6
2018	869	1,893	0.8
3-year avg.	767	1,492	0.7

<sup>a</sup> Sharp-tailed grouse reporting Zones A & B.

Table 13. Estimated gray and chukar harvest, Southeast Region, 2009-present.

Season	Gray partridge			Chukar		
	Hunters	Birds	Birds per hunter day	Hunters	Birds	Birds per hunter day
2009	1,343	4,434	0.4	504	894	0.4
2010	1,738	7,818	0.5	801	2,358	0.7
2011	1,172	4,370	0.5	427	1,432	0.4
2012	1,467	8,140	0.8	485	1,366	0.4
2013	982	4,262	1.1	475	683	0.3
2014	1,181	5,020	1.1	571	2,443	1.7
2015	960	3,070	0.4	470	551	0.4
2016	603	7,383	1.4	238	1,224	2.2
2017	212	554	0.6	94	100	0.5
2018	1,019	3,440	1.2	263	2,027	1.7
3-year avg.	611	3,792	1.1	198	1,117	1.5

Table 14. Estimated turkey harvest, Southeast Region, 2009-present.

Year Hunt	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
2009						
Controlled	8	395	312	176	7.1	1,258
General			1,106	405	12.2	4,953
2010						
Controlled	8	470	371	178	8.4	1,500
General			1,283	299	15.0	4,485
2011						
Controlled	8	470	337	143	11.1	1,336
General			876	287	10.8	1,719
2012						
Controlled	8	470	191	84	12.0	721
General <sup>b</sup>			425	163	12.0	1,443
2013						
Controlled	9	520	385	218	7.1	1,550
General <sup>b</sup>			687	214	12.5	2,671
2014						
Controlled	9	620	471	268	10.9	2,917
General <sup>b</sup>			1,243	519	7.4	3,851
2015						
Controlled	9	620	413	233	7.4	1,622
General <sup>b</sup>			1,093	425	8.2	3,495
2016						
Controlled	5	345	172	96	6.8	641
General			2,329	832	15.1	7,568
2017						
Controlled	5	345	185	86	8.0	689
General			3,218	2,281	5.4	12,217
2018						
Controlled	5	345	143	66	5.7	229
General			1,948	824	10.0	8,279

<sup>a</sup> No data for Hunt 68A-3.

<sup>b</sup> No general hunts offered fall 2012/2013.

Table 15. Turkey translocation history, Southeast Region, 1982-2017.

Year	Sub-species <sup>a</sup>	Release site	Birds released	New or supplemental release	GMU
1982	R	Snake River	36	N	68A
1984	R	Snake River	28	N	68A
1990	M	Snake River	14	S	68A
1993	M	Bear River	20	N	77
1994	M	Snake River	64	S	68A
	M	Bear River	32	S	77
1999	U	Deep Creek - Bear River	15	S	77
2000	U	Oneida Narrows	50	S	77
2001	U	Portneuf Range	136	N	71
2003	H	Snake River,	42	S	69
2008	H	Snake River,	82	S	68A
2013	U	McTucker,	18	S	68A
2015	H	Upper Carmen Creek	52	S	21A
2016	U	Salmon Region	10	S	
2017	U	Southeast Region	55	S	Several
2018	U	Southeast Region	130	S	68A, 77

<sup>a</sup> H = Hybrid, M = Merriam's, R = Rio Grande, U = Unknown.

Table 16. Estimated cottontail rabbit harvest, Southeast Region, 2009-present.

Season	Hunters	Harvest	Days	Rabbits/hunter day
2009	548	2,283	4,670	0.5
2010	1,225	5,811	4,687	1.2
2011	501	332	1,833	0.2
2012	886	3,428	5,040	0.7
2013	174	101	488	0.2
2014	475	2,836	2,179	1.3
2015	1,438	5,493	3,898	1.4
2016	649	4,201	2,001	1.5
2017	202	354	908	0.4
2018	40	82	197	0.4
3-year avg.	297	1,546	1,035	0.8

## UPPER SNAKE REGION

### **Climatic Conditions**

The winter of 2017-2018 was warmer and drier than average. Spring and summer conditions were also warmer and drier than average.

### **Trapping and Translocation**

No Department trapping or translocation took place in the Upper Snake Region for pheasant, forest grouse, sharp-tailed grouse, chukar, gray partridge, or turkey during the reporting period. Sage-grouse were once again trapped and marked for the partnership study with BLM. Trapping was spread across the northeastern portion of the region from Birch Creek to the Sand Creek desert.

## **Pheasant**

### **Population Surveys**

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

### **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.

No check stations were operated during the pheasant season, but officers did focus a number of enforcement efforts to ensure compliance with the pheasant stocking program. (Table 1).

An estimated 949 hunters harvested 2,582 pheasants in 2018 (Table 1). Estimated harvest was 0.7 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 the Upper Snake Region. Adult pheasant hunters were requested not to hunt in the youth hunt area unless they accompanied a youth  $\leq 17$  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 the 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

pheasants scattered throughout the area including Howe, Montevieu, 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.

### **Release of Pen-reared Pheasants**

Adult roosters were purchased from a contractor and released on Department lands in the Upper Snake Region. The releases per area for 2018 were as follows: Market Lake – 1,167; Mud Lake – 1,080; Cartier – 800. Total number of birds released was 3,047. Two releases were made weekly on each WMA throughout the pheasant hunting season. Adult hunters hunting on WMAs where farmed pheasants are released are required to obtain a WMA pheasant permit.

### **Management Implications**

There seems to be little IDFG 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 the Upper Snake Region. Although some winter habitat improvement projects have been implemented in the region, little has been done to improve nesting habitat. In 2014, a portion of the Marty acquisition on Mud Lake WMA was set aside as a wildlife preserve and pheasant hunting is not allowed in here. This is a riparian area along Camas Creek.

An additional challenge has been the decreasing number of acres enrolled in the CRP program. Many producers have taken established grasslands out of CRP and put them back into active crop production. A contributing part of this has also been the reduction in allowable acres within the Upper Snake as delineated by the CRP program itself.

## **Forest Grouse**

### **Population Surveys**

Forest grouse are defined as ruffed grouse, spruce grouse and dusky (blue) grouse. The summary and analysis here include these three species as one type of upland bird hunting. Forest grouse populations are not surveyed in the Upper Snake Region because populations are widely distributed in forested habitat, making it difficult to efficiently obtain adequate sample sizes from enough areas to be meaningful.

Wings were examined to estimate forest grouse production; however, sample sizes are too small to be of value. So few forest grouse wings were collected at check stations, wing barrels, or turned in to IDFG during the 2018 season that juvenile:adult ratios could not be obtained.

### **Harvest Characteristics**

Harvest information has been collected from the statewide survey and from check stations operated during opening weekend of sage-grouse season (Table 2). Forest grouse checked at check stations are typically taken in conjunction with sage-grouse hunting. Check station data have been used to calculate an index of forest grouse per 10 hunters checked on opening weekend of sage-grouse season. Number of forest grouse in the bag of sage-grouse hunters

provides a rough index to their abundance in or near areas inhabited by sage-grouse. Very few (4) forest grouse wings were collected at sage-grouse check stations in 2018 (Table 2).

An estimated 2,190 hunters harvested 10,106 forest grouse in the Region in 2018. The estimated forest grouse harvest per day was 0.6.

### **Management Implications**

Forest grouse hunter participation and harvest estimates have fluctuated widely in the past 10 years. Number of birds checked at check stations on opening weekend of sage-grouse season has varied between 0 and 60 with a mean of 21. Telephone harvest survey estimates also vary widely with an estimated harvest of 23,213 forest grouse in 2001 to 7,219 harvested in 2005.

It has been suggested forest grouse harvest is primarily incidental to other hunting activities, 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 fluctuations 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. While the bulk of forest grouse harvest may be incidental to other hunting activities, there seems to be a growing interest by bird hunting enthusiasts to pursue forest grouse on a more consistent basis due to the early hunting opportunities.

## **Sage-grouse**

### **Population Surveys**

Sage-grouse are distributed throughout the Upper Snake Region in sagebrush-steppe habitat. Fifteen lek routes were counted in 2019. Three routes (Lidy, Market Lake, and Lower Big Lost) were discontinued in 2004 to reduce workloads and place more emphasis on obtaining better quality data for routes counted; although the Lidy route was re-established in 2007 and the Market Lake route was run in 2009, 2013 and 2014. The 15 routes now counted consistently (not including Market Lake), provide a good distribution of routes in different habitat types, precipitation regimes, and elevations across the region. Lek counts from 2010 through 2019 are displayed in Table 3.

The juvenile to adult female ratio is determined from hunter-harvested sage-grouse wings. In the last 10 years, these data indicate production was the highest in 2010 with 2012 and 2016 being the lowest production years (Table 4).

### **Harvest Characteristics**

Starting in 2000, sage-grouse and/or sharp-tailed grouse hunters were required to purchase a validation on their hunting license, allowing IDFG to more accurately survey these hunters and request wings from harvested birds. A statewide survey conducted for the 2018 season estimated 353 hunters harvested 392 sage-grouse in the Upper Snake Region (Table 5). Estimated sage-grouse harvest per day in 2017 was 0.7. Estimates from the survey since 2000 are not comparable with the telephone surveys done prior to 1996.

In 2010, IDFG surveyed sage-grouse hunters statewide to determine hunter participation and harvest throughout the season relative to opening weekend. More hunters hunted opening weekend than hunted after opening weekend in harvest zones 6, 7C, 7D, and 8B. Additionally, more sage-grouse were taken on opening weekend than after. Traditional perception is that most sage-grouse hunting and harvest occurs on opening weekend of sage-grouse season. The 2010 data suggest this was the case, although the 2009 and 2008 data suggested 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 and fragmented 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 IDFG Headquarters office in Boise. Sage grouse populations from the Sand Creek Desert to Birch Creek Valley have had GPS and VHF collars placed on male and female sage-grouse from 2016 through 2018 to monitor habitat use and movement patterns, as well as provide survival and production information for managers. This is a study is a partnership project with IDFG and BLM.

### **Management Implications**

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

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

The Upper Snake LWG, a group of federal and state agency personnel, sportsmen, ranchers, and landowners from the Upper Snake Region, was formed in November 1998 to address sage-grouse declines. Initially, 50-60 members met on a bi-monthly or monthly basis, but this number has dwindled to 10-15 over the past five years. In 2006, Upper Snake LWG members reviewed and commented on the statewide sage-grouse conservation plan, which legitimized their local plan. The Upper Snake LWG has commented on numerous development and habitat manipulation projects that had the potential to impact sage-grouse populations in the region and

have received Office of Species Conservation funding for many research and management project designed to improve sage-grouse habitat, populations, or data collection.

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

## **Sharp-tailed Grouse**

### **Population Surveys**

Six sharp-tailed grouse lek routes were surveyed in the region during 2019 (Table 6). A new lek route was established 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. The Ozone route was omitted in 2017 due to private property access issues, new housing developments/encroachment, wind towers, and other habitat losses on the original lek route. In 2017, a new route was established and is known as the Bone route. The historic five routes in addition to the new Bone route will continue to be monitored in the future.

### **Production**

The IDFG made a significant effort to improve our sample of wings collected from harvested sharp-tailed grouse on the Sand Creek and Tex Creek WMAs beginning in 2009. Staff placed additional, more appealing and easy to use, wing collection kiosks throughout these areas. Established kiosks along with wings mailed-in to IDFG resulted in the collection of 175 wings in 2018. Analysis of wings indicated 113 juveniles:100 adults (1.19) for 2018 (Table 7).

### **Harvest Characteristics**

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

Starting in 2000, sage-grouse and/or sharp-tailed grouse hunters were required to purchase a validation on their hunting license, allowing IDFG to more accurately survey these hunters and request wings from harvested birds. During the 2018 hunting season, an estimated 425 hunters harvested 767 sharp-tailed grouse (Table 8). The estimated sharp-tailed grouse harvest per day in 2018 was 0.7. These estimates are not comparable with the telephone surveys done prior to 1996.



### **Habitat Conditions**

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

A major fire event occurred across GMU 69 in 2016. This human caused fire started in July and burned almost 60,000 acres, much of it important sharp-tailed grouse habitat. Approximately, 75% of the Tex Creek WMA was burned during this event. Habitat response and recovery is a focus for Fish and Game staff. This fire event will likely impact sharp-tailed grouse habitat use and production over time.

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

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

During spring 2016, IDFG worked with Brigham Young University, Idaho to conduct lek searches and document lek activity in GMU 64. This work would evaluate use on historical lek sites (n=33) as well as provide information relative to new lekking locations (4 new leks found).

### **Management Implications**

Sharp-tailed grouse production was low from 1992-1994, 2000-2001, and 2003-2005. Unfavorable weather conditions may be responsible. Drought conditions prevailed throughout

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

## **Chukar**

### **Population Surveys**

No chukar production data were collected during this reporting period. No wings were collected in 2018 at check stations. Wing barrels failed to produce any and no wings were turned in to IDFG during the 2018 season, making any estimate of production impossible.

### **Harvest Characteristics**

A telephone survey estimated 157 hunters harvested 161 chukars in 2018 with 0.5 birds harvested per day (Table 9). Although operated primarily to check sage-grouse hunters, opening weekend check stations also provide minimal information on chukar harvest. No sage-grouse or upland game bird check stations were established in 2017.

### **Management Implications**

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

## **Gray Partridge**

### **Population Surveys**

No population trend data were collected for this reporting period. There were no gray partridge wings collected at check stations, wing barrels, or turned in to IDFG during the 2018 season.

### **Harvest Characteristics**

Harvest information is gathered from check stations operated at Sage Junction and Red Road during opening weekend of sage-grouse season and through a statewide combined mail-out and telephone harvest survey. No partridge wings were collected in 2017 (Table 10). It should be

noted there has been a reduction in check station participation since 1996, resulting from restricted sage-grouse hunting opportunity in the region. However, gray partridge harvest estimates during 2007-2010 were based on a small sample of survey respondents, which likely resulted in fairly dramatic swings in estimated hunter numbers and harvest between years. In 2018, an estimated 233 hunters harvested approximately 732 gray partridge in the Upper Snake Region. Birds harvested per day was 1.0.

### **Habitat Conditions**

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

Gray partridge are distributed at lower elevations throughout the Upper Snake Region, but densities are relatively low. In drier years, 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; two or more years of good production can result in a dramatic increase in numbers. This may have been the case from 2004-2007, when estimated harvest of gray partridge increased steadily. The prolonged winter of 2007-2008 and 2010-2011 may have had a negative impact on gray partridge numbers for the 2008 hunting season, while the last five winters have been relatively mild and harvest estimates have 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, 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 which included the entire region, in spring 2019. There were a total of 254 hunters that participated with an estimated harvest of 69 turkeys for these spring Controlled Hunts (Table 11). Beginning in fall 2008, a fall youth-only controlled turkey hunt was offered throughout the Upper Snake Region. A fall hunt for youth is offered with 25 permits. Eighteen youth hunters participated in this hunt in 2018 and harvested 5 turkeys (Table 12).

### **Habitat Conditions**

Turkey habitat in the region may be limited by winter food availability, 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 inadequate winter food was the primary limiting factor.

### **Depredation**

No turkey depredation complaints were reported to the Upper Snake Region during this reporting period.

### **Management Implications**

Turkey hunter success in the region remains relatively low, although success increased for the 2009 and 2010 season and more recently over the last three seasons. Hunter success on spring-controlled hunts in 2018 was 30%. Anecdotal information from hunters and department staff indicate the severe winter of 2010-2011 may have reduced the turkey population in the Upper Snake Region. Since then, turkey populations have rebounded with increasing success rates and hunters observing more birds.

## **Rabbits and Hares**

Starting in 2002, the pygmy rabbit season closed, leaving only cottontail rabbit and snowshoe hare available to hunters.

Since 2002, the Diversity 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 IDFG's Conservation Data Center.

Cottontail rabbit management is a low priority in the Upper Snake Region. A statewide survey of rabbit hunters estimated 285 hunters harvested 556 cottontail rabbits in the Upper Snake Region during 2018 (Table 14).

In 2015 and 2016, there was a dramatic increase in all rabbits across eastern Idaho. Jackrabbit numbers documented through agriculture depredation reports and surveys conducted on the Idaho National Laboratory (INL) estimated numbers to be close to 1980s population levels. The increase in cottontail harvest in 2016 is likely due to these high numbers. Snowshoe hare harvest was also up considerably in 2016. Rabbit and hare harvest estimates are based on a small sample of survey respondents; therefore, estimates will likely vary significantly from year-to-year based on the reporting of one or a few individuals. Other than some trend surveys on INL property, no production or population data are collected on rabbit or hare populations.

The winter of 2016-2017 saw above average snowfall and brought severe weather conditions across most of the Upper Snake Region. Anecdotal observations and hunter reports suggest the jackrabbit population crashed as a result of this winter. In fact, in areas where one could go for a walk and encounter hundreds of rabbits prior to this winter, one is lucky to observe one or two rabbits over the same area now.

Table 1. Estimated pheasant harvest, Upper Snake Region, 2009-present.

Season	Check station <sup>a</sup>			Telephone survey		
	Hunters	Birds harvested	Birds per hunter Hours per bird	Hunters	Birds	Birds per hunter day
2009 <sup>b</sup>				1,744	5,237	0.7
2010 <sup>b</sup>				1,374	6,419	0.9
2011 <sup>b</sup>				1,039	1,252	0.5
2012 <sup>b</sup>				1,488	5,056	0.6
2013 <sup>b</sup>				1,269	5,325	1.3
2014 <sup>b</sup>				1,165	4,807	0.6
2015 <sup>b</sup>				1,488	5,034	0.9
2016 <sup>b</sup>				1,545	4,365	0.7
2017 <sup>b</sup>				448	3,175	0.9
2018 <sup>b</sup>				949	2,582	0.7
3-year avg.				1,251	4,325	0.8

<sup>a</sup> Check station not operated on opening weekend.

<sup>b</sup> 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, 2009-present.

Season	Check station					Telephone survey		
	Hunters <sup>a</sup>	Number of grouse			Forest grouse/10 hunters	Hunters	Birds harvested	Birds per hunter day
		Blue	Ruffed	Total <sup>b</sup>				
2009	651	4	12	16	2.5	4,543	13,590	0.5
2010	446	4	7	11	2.5	2,120	7,951	0.6
2011	285	4	12	16	5.6	2,287	5,166	0.9
2012	275	3	0	3	1.0	2,287	12,195	0.8
2013	313	0	0	0	0.0	4,224	18,156	1.0
2014	0	0	0	0	0.0	2,824	6,874	0.6
2015	342	2	1	3	0.01	2,731	3,603	0.5
2016	275	2	2	4	0.01	3,356	11,754	0.5
2017						1,730	7,149	0.6
2018						2,190	11,419	0.6
3-year average	NA	NA	NA	NA	NA	2,829	9,786	0.6

<sup>a</sup> Number of hunters includes those hunting for forest grouse, sage-grouse, and partridge.

<sup>b</sup> 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, 2010-present.

Season	Lek route <sup>a</sup>																	Total	Avg	
	LBC	RR	J	ML	LL	L	P <sup>c</sup>	UBC	CC	MLk <sup>b</sup>	SS <sup>d</sup>	TB <sup>e</sup>	SR <sup>e</sup>	I <sup>d</sup>	TF <sup>d</sup>	LBL <sup>b,f</sup>	AC <sup>f</sup>			UBL <sup>g</sup>
2010	54	97	223	124	95	314	79	37	128		279	79	31	99	119		44	39	1,841	115
2011	50	10	196	163	80	271	112	53	77		208	118	43	109	63		66	29	1,433	102
2012	52	147	180	203	101	127	86	39	138		264	83	28	107	63		54	32	1,704	107
2013	48	111	77	211	104	109	87	57	110		165	76	26	110	53		36	27	1,407	88
2014	64	452	179	141	99	79	84	54	82		232	45	36	141	55		37	26	1,506	94
2015 <sup>b</sup>	82	182	149	130	105	75	95	32	115		171	7	26	n/a	76		72	72	1,389	93
2016	123	139	138	159	89	110	108	33	116		201	26	35	n/a	115		64	87	1,543	103
2017	132	149	130	170	81	71	72	36	118		194	12	42	n/a	84		25	53	1,481	91
2018	100	8	90	127	64	57	40	25	133		188	11	15	94	74		24	40	1,166	73
2019	97	80	91	84	18	48	17	20	130		n/a	14	29	60	69		30	43	830	55
3-year Avg	80	138	145	151	84	126	78	39	115	-	n/a	47	31	n/a	77	-	45	45	1,430	100

<sup>a</sup> 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.

<sup>b</sup> Idaho National Laboratory route (I) not ran anymore.

Table 4. Greater sage-grouse production based on wing collections, Upper Snake Region, 2009-present.

Season	Juveniles:100 females	Juveniles:100 adults
2009	217	161
2010	227	171
2011	160	106
2012	90	66
2013	102	72
2014	140	94
2015	172	112
2016	93	68
2017	129	80
2018	167	127
3-year average	130	92

Table 5. Estimated greater sage-grouse harvest, Upper Snake Region, 2009-present.

Season	Check station				Telephone survey		
	Hunters <sup>a</sup>	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds	Birds per hunter day
2008 <sup>b</sup>	660	589	0.9	4.8	2,768	5,339	0.8
2009 <sup>b</sup>	651	574	0.9	4.7	2,229	4,651	0.9
2010 <sup>b</sup>	446	246	0.6	6.9	1,051	1,698	0.6
2011	285	138	0.5	7.1	1,103	988	0.5
2012	275	118	0.4	8.7	1,118	1,074	0.5
2013	313	114	0.5	8.4	1,082	1,060	0.4
2014	332	189	0.6	6.4	1,024	1,071	0.4
2015	342	190	0.6	6.7	905	1,005	0.5
2016	275	141	0.5	7.5	1,808	1,018	0.5
2017 <sup>b</sup>					857	832	0.5
2018					353	392	0.7
3-year average					1,006	747	0.6

<sup>a</sup> Number of hunters includes those hunting for forest grouse, sage-grouse, and partridge.

<sup>b</sup> Telephone survey data reported in this table includes zones 6, 7C, 7D, and 8B. \*Important to note that in 2018 a significant portion of Zone 6 was closed to hunting (All of GMU 60A was closed to sage-grouse hunting)



Table 6. Sharp-tailed grouse counted on lek routes, Upper Snake Region, 2010-present.

Year	Route - maximum total count						
	Sand Creek	Bone <sup>c</sup>	Pine Creek	Teton River <sup>a</sup>	Ozone <sup>a</sup>	Birch Creek <sup>a</sup>	Chokecherry <sup>b</sup>
2010	54		43	62	25	67	32
2011	34		57	47	29	88	34
2012	60		37		9	64	36
2013	80		38	7	17	59	32
2014	59		83	14	13	93	44
2015	124		85	24	9	31	37
2016	111		88	28	8	47	33
2017	71	29	27	30	n/a	60	16
2018	71	29	14	30	n/a	50	12
2019	82	27	45	17	n/a	43	17
3-year average	75	28	29	26	n/a	51	15

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

<sup>b</sup> New route established in 2009.

<sup>c</sup> New route established in 2017..

Table 7. Sharp-tailed grouse production based on wing collections<sup>a</sup>, Upper Snake Region, 2009-present.

Season	Juveniles:100 adults	<i>n</i>
2009	170	448
2010	135	360
2011	146	308
2012	161	280
2013	105	282
2014	161	186
2015	147	170
2016	94	200
2017	119	230
2018	113	175
3-year average	109	202

<sup>a</sup> Small sample sizes with the exception of 2009.

Table 8. Estimated sharp-tailed grouse harvest, Upper Snake Region, 2009-present.

Season	Check station				Telephone survey <sup>a</sup>		
	Hunters	Birds harvested	Birds per hunter	Hours per bird	Hunters	Birds	Birds per hunter day
2009 <sup>a,b</sup>					979	1,907	0.8
2010 <sup>a,b</sup>					893	1,171	0.7
2011 <sup>b</sup>	15	21	1.4	3	791	1,163	0.6
2012 <sup>a,b</sup>					709	1,658	0.8
2013					416	620	0.5
2014					701	1,115	0.6
2015					783	1,679	0.8
2016 <sup>a,b</sup>					476	893	0.6
2017 <sup>a,b</sup>					526	1,045	0.6
2018					425	767	0.7
3-year average					475	901	0.6

<sup>a</sup> No check station data collected because sharp-tail season opened later (1 Oct) than sage-grouse season.

<sup>b</sup> Telephone survey data includes Zones 3 (C) and 4 (D).

Table 9. Estimated chukar harvest, Upper Snake Region, 20098-present.

Season	Check station			Telephone survey			
	Hunters <sup>a</sup>	Birds harvested	Birds per hunter	Hunters	Birds harvested	Hunter days	Birds per hunter day
2009 <sup>b</sup>	651	6	0.1	271	3,134	2,952	1.1
2010	446	0	0.0	512	381	1,344	0.3
2011	285	6	0.0	336	438	617	0.7
2012	0	0	0	273	542	511	1.1
2013	0	0	0	18	0	18	0.0
2014	0	0	0	137	1,097	528	2.1
2015	342	5	0.0	70	5	143	0.4
2016	275	0	0	157	1,472	583	2.5
2017				159	2,424	1,245	1.9
2018				157	161	304	0.5
3-year average				158	1,352	177	1.6

<sup>a</sup> Number of hunters includes those hunting for forest grouse, sage-grouse, and partridge.

<sup>b</sup> 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, 2009-present.

Season	Check station			Telephone survey			
	Hunters <sup>a</sup>	Birds harvested	Birds per hunter	Hunters	Birds harvested	Hunter days	Birds per hunter day
2009	651	7	0.0	454	3,526	3,258	1.1
2010	446	0	0.0	533	3,102	2,467	1.3
2011	285	7	0.0	388	891	1,415	0.6
2012	275	6	0.0	931	2,461	3,026	0.8
2013	313	3	0.1	574	3,763	2,123	1.8
2014	0	0	0.0	636	2,759	8,061	0.3
2015	342	5	0.0	810	2,924	3,043	1.0
2016	275	0	0.0	914	6,385	5,105	1.3
2017				377	1,645	2,156	0.8
2018				233	732	738	1.0
3-year average				508	2,920	2,666	1.0

<sup>a</sup> Number of hunters includes those hunting for forest grouse, sage-grouse, and partridge.

Table 11. Estimated spring turkey harvest, Upper Snake Region, 2010-present.

Hunt type	Year <sup>a</sup>	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
CH	2010	3	300 <sup>c</sup>	263	81	12	939
CH	2011	3	300 <sup>c</sup>	228	52	22	1,140
CH	2012	3	300 <sup>c</sup>	250	42	23	951
CH	2013	3	300 <sup>c</sup>	216	64	17	1,116
CH	2014	3	300 <sup>c</sup>	226	63	30	1,917
CH	2015	3	300 <sup>c</sup>	279	80	13	1,032
CH	2016	3	300 <sup>c</sup>	229	57	16	792
CH	2017	3	300 <sup>c</sup>	239	50	19	923
CH	2018	3	300 <sup>c</sup>	187	99	4	410
CH	2019	3	300 <sup>c</sup>	254	69	15	1,034

<sup>a</sup> Includes 25 youth permits and 175 any hunter permits.

<sup>b</sup> Includes 50 youth permits and 20 any hunter permits.

<sup>c</sup> Includes 50 youth permits and 250 any hunter permits.

Table 12. Estimated fall turkey harvest, Upper Snake Region, 2009<sup>a</sup>-present.

Controlled	Year	Number of hunts	Permits available	Hunters	Birds harvested	Days per bird	Total days hunted
	2009	1	25	15	8	6	50
	2010	1	25	25	7	21	146
	2011	1	25	21	7	15	105
	2012						
	2013	1	25	23	8	9	70
	2014	1	25	21	17	4	64
	2015	1	25	14	11	5	54
	2016	1	25	12	8	3	28
	2017	1	25	13	8	5	40
	2018	1	25	18	5	16	79

<sup>a</sup> Hunt initiated in 2008.

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

Year	Sub-species <sup>a</sup>	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

<sup>a</sup> M = Merriam's; R = Rio Grande.

Table 14. Estimated cottontail rabbit and snowshoe hare harvest, Upper Snake Region, 2009-present.

Season	Cottontail rabbit		Snowshoe hare	
	Hunters	Cottontails harvested	Hunters	Hares harvested
2009	351	2,047	170	256
2010	582	6,207	54	74
2011	191	384	78	234
2012	635	1,046	137	136
2013	455	2,490	0	0
2014	477	1,997	142	91
2015	469	4,764	58	171
2016	691	4,610	248	2,743
2017	187	2,077	ND	ND
2018	285	556	7	0
3-year average	388	2,414	NA	NA

## **SALMON REGION**

### **Climatic Conditions**

Climatic conditions were variable for upland game bird production throughout this reporting period. Winter was average to slightly below average for snowfall and temperatures which should have led to good overwinter survival. However early spring moisture may have impacted nest success on early nesting species. The summer conditions were dry and favorable for brood production.

### **Trapping and Translocation**

Eighty five turkeys were captured in the Southeast Region on two separate occasions in late January. They were released on private property in the Tower and Carmen Creek drainages near Carmen, Idaho.

## **Pheasant**

### **Abstract**

Small populations of pheasants exist in limited, but stable habitats in the 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. These 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. The eight hunters reported in 2018 was likely a result of modeling error due to an extremely small hunter sample size. Overall hunter participation has historically been low, and as a result, harvest has been too low to accurately estimate in recent years.

### **Habitat Conditions**

Pheasant habitat in Custer and Lemhi counties exists along the lower Lemhi, Pahsimeroi, and main Salmon River near Challis and Salmon. The habitat consists primarily of riparian areas, cattail marshes, hay meadows, and cattle pastures. Cereal cropland is uncommon. This habitat has been relatively stable from year to year and unaffected by annual weather variations or changes in grain commodity markets. However, rural residential housing has been increasing, resulting in increased land clearing, more feral cats, and less hunting opportunity.

### **Management Implications**

Pheasants in the Salmon Region occur in limited geographic areas with stable to declining habitat conditions and 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. Due to the majority of suitable pheasant habitat in the region being

found between 4,000 and 5,000 feet in elevation, winter and spring weather are likely more limiting to population expansion than habitat availability. Overall, habitat available for pheasants and areas open to hunting will decrease concomitant with continued housing development and heavy cattle and horse grazing. Harvest is currently limited by restricted access to private land, which is also unlikely to increase with the trend of changing landowner demographics to increasing absentee ownership.

## **Quail**

### **Abstract**

The small, exotic Gambel's quail population near Salmon appears to be at carrying capacity, indicating harvest could be initiated at a level near annual production. There is mixed interest in pursuing this opportunity and/or protecting this population. At this time hunting opportunity is not being pursued.

### **Population Surveys**

No production data were collected during this reporting period.

### **Harvest Characteristics**

Hunting season is closed.

### **Habitat Conditions**

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

### **Management Implications**

A small, introduced population of Gambel's quail exists in isolated pockets within a few miles of Salmon. Little is known about this non-hunted population. Broods are usually reported each year and the population appears stable. Although limited in distribution, restrictive harvest on this population could be compensatory if watched closely. The extent of opportunity and harvest would be primarily limited by access to private property, where the majority of the population exists. Although it may be 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 non-consumptive users whom hold them in high regard.

## **Forest Grouse**

Forest grouse populations in the Salmon Region are primarily controlled by weather conditions during nesting and brood rearing. In addition, hunter numbers and harvest effort are largely secondary and incidental to big game hunting efforts. 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). Even so, harvest estimates are likely biased because of very small sample sizes. During this reporting period approximately 919 hunters harvested 65 grouse.

No check stations are maintained specifically for forest grouse. A few birds are checked incidentally in the field and at big game check stations. In addition, a few wings are collected incidentally in sage-grouse wing barrels annually. Although the locations of these barrels and the small sample size likely does not result in a representative sampling.

### **Habitat Conditions**

Although forest grouse habitat may be altered by natural (e.g., fire, forest diseases) or human-related (e.g., logging, mining, grazing) forces, scale of such changes in the Salmon Region is generally not large enough to significantly impact overall grouse populations. However, large-scale wildfires since 2000 that set back succession in large areas of GMUs 21, 27, 28, 36, and 36B may help maintain forest grouse populations. In addition, large scale fuels management projects slated to be conducted by the USFS in the Salmon and Lemhi Mountains may also improve forest grouse habitat.

### **Management Implications**

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

## **Sage-grouse**

### **Abstract**

The Salmon Region currently monitors over 79 individual leks including 11 lek routes. Male attendance on leks provides a relative population index and is used to set harvest limits. In 2009, harvest regulations were adjusted to a restricted season in Zone 7B. Region-wide, lek attendance on population index routes have been increasing since the mid-1990s (Figure 1), but have shown a slight decrease in recent years. Four of the Salmon Region lek routes show long term trends and have good spatial representation across the region. These four leks are the Upper Pahsimeroi, Upper Lemhi, Lower Lemhi, and Leadore East. Long term data in the Salmon Region show the sage-grouse population is characterized by a 10-year peak and trough cycle.

### **Population Surveys**

Salmon Region personnel have significantly increased sage-grouse lek data collection efforts in recent years, increasing the number of leks visited from two in 1978 to 78 leks for the reporting period. Data from individual leks versus groups of leks show variability in terms of the maximum male sage-grouse attendance over time (Table 3). Salmon Region leks show an increasing trend in male attendance from 1996 until about 2006 or 2007 when the trend gradually decreased. The average number of males/lek route for the Lower Lemhi lek route, a representative example for the Salmon Region has decreased from a high of 44 in 2006 to 16, 17, and 9 in 2017, 2018, and 2019. The 3-year average was 14.

### **Harvest Characteristics**

The hunting season was reduced from a 23-day, two-bird daily limit season to a seven-day, one-bird daily limit (two in possession) season in 2009. Due to decreasing lek attendance IDFG may implement further restrictions on the season or potentially close the season in 2019. Restrictive seasons have resulted in reductions in harvest and hunter numbers (Table 4). The ‘Restrictive Hunting Season’ option was in place for the 2018 hunting season.

### **Habitat Conditions**

The Salmon Region has large areas of high quality, intact sagebrush steppe plant communities. Documented loss of sage-grouse habitat in the Salmon Region has been minimal in recent years. Habitat losses that do occur are generally caused by sagebrush conversion on private lands. However, what used to be small, isolated areas with annual invasive grasses are showing an increasing trend to levels that may impact sage-grouse directly. Cheatgrass is increasing on rangelands throughout the region, effectively degrading sage-grouse habitat quality and quantity. Regional staff are working cooperatively with USFS and BLM staff under the Cheatgrass Challenge Grant to actively identify and treat cheatgrass in critical sage-grouse habitat in the upper Lemhi.

### **Habitat Use Monitoring**

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

### **Management Implications**

The Lemhi and Pahsimeroi valleys are the most productive sage-grouse areas in the region. The Lemhi Valley summer population is comprised of resident grouse and birds that migrate from wintering/breeding areas in lower Birch Creek to summer range in Lemhi Valley. We do not know if a similar condition exists in the Pahsimeroi Valley; however, several hens have moved from the Pahsimeroi to nest in the upper Little Lost and one stayed through the winter.

During 1986 and 1987, 196 sage-grouse were translocated into the Sawtooth Valley where populations had declined, but there was no apparent significant habitat loss. Reproduction was



documented among these birds. No further translocations are planned for this area. Isolated reports of sage-grouse were received during the summers of 1994 and 1996, and fall 1997, but the Sawtooth population appears to have failed to establish.

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

## **Chukar**

### **Abstract**

The chukar is a game bird native to Asia, and was first introduced into Nez Perce County, Idaho in 1933. Subsequent releases of game-farm birds into unoccupied habitat established chukars throughout most suitable habitat in Idaho by 1957. 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. Deep snows and cold winter temperatures caused a significant population decline in 2016-2017.

### **Population Surveys**

No production data were collected during this reporting period.

### **Harvest Characteristics**

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

Hunter numbers for 2018 were estimated at 288. This represents a decrease from the previous three-year average and is likely due to the reduction in bird survival due to the hard winter of 2016-17. Hunters spent 2,745 days hunting in 2018. This represents a significant increase from the previous year's effort of 686 days. This is likely a result of the perception of some level of recovery from the hard winter in 2016-17.

The overall chukar harvest in the region estimated from hunter reports was 246 in 2018. This represents a dramatic decrease from historical levels that exceeded 4,000 birds as recently as 2016. Birds per hunter increased over the previous two years, which is likely due to the dramatic decrease in overall hunter numbers. Again, these sharp declines are likely a result of the die-off during the 2016-2017 winter.

### **Habitat Conditions**

Chukar habitats in the Salmon Region are generally stable. However, some areas are threatened by spotted knapweed (*Centaurea maculosa*) and other noxious weed invasions. Other habitats

may be created or altered by wildfire. The IDFG is working cooperatively with federal land managers to treat core chukar habitat on the Salmon River near North Fork for noxious weeds.

### **Management Implications**

Chukar populations in the Salmon Region are primarily weather dependent. Hunting pressure varies dramatically depending upon chukar population levels. However, hunting is compensatory and has little, if any, direct impact on chukar populations. Qualitative brood observations show some levels of recovery from the 2016-2017 winter; however, recovery to historic levels will likely take a very long time, depending on future winter and spring conditions.

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**

The gray partridge is a medium-sized partridge introduced to various places in North America from Europe. They are sometimes referred to as Hungarian partridge or “Huns.” They originally dispersed into Idaho from neighboring states of Oregon and Washington during the early 1900s. Gray partridge introduction efforts were initiated in Idaho during 1921 and resulted in establishment of populations across much of the state. Gray partridge rank a distant third with regard to harvest among Salmon Region upland game birds. Due to limited, scattered habitat, gray partridge are not expected to significantly increase. Deep snows and cold winter temperatures probably caused a significant population decline in 2016-2017 as with chukars.

### **Population Surveys**

No production data were collected during this reporting period.

### **Harvest Characteristics**

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

Due to an extremely low sample size hunter numbers, effort, and harvest are not representative of what occurred on the landscape for 2018. Hunter participation is believed to be low, but follow similar trends to chukar hunter participation, as gray partridge are typically pursued secondary to chukars.

### **Habitat Conditions**

Although widely distributed, gray partridge habitat is not abundant in the 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 the Salmon Region is minimal. Hunter effort and harvest are low, but may increase with recovery of chukar populations. Extensive efforts to collect more data are probably not justified.

## **Wild Turkey**

### **Abstract**

Turkeys were first translocated to the Salmon Region starting in 1983. Between 1991 and 1999, 139 wild turkeys were released in the Salmon Region to augment existing flocks and in novel areas. 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. In 2015 and 2016, an additional 132 turkeys captured from the Southeast Region were released in GMU 21A to establish a new population to support future hunting opportunity. This population of turkeys was augmented again in 2018 with 39 birds. However, habitat limitations and access to private property may restrict significant hunting opportunities.

### **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 were conducted during this reporting period.

### **Harvest Characteristics**

A controlled hunt with five permits was instituted in the Challis area in spring 2005. An additional 10 permits were added in 2008, plus a youth hunt with five permits was offered. This hunt has since increased to offer 25 youth and 30 adult spring controlled hunt permits and 30 fall controlled hunt permits. In addition a five permit youth controlled hunt has been added to both the fall and spring hunts in the GMUs around Salmon. The Challis area spring hunts average a 37% harvest success that is likely limited by private land access. The Salmon area spring youth hunt had 100% success. This is reflective of the extremely conservative season approach and expanding turkey populations in the area. The fall hunt in Challis experienced a 57% success rate while the Salmon hunt had a 100% success rate.

### **Habitat Conditions**

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

### **Trapping and Translocation**

No turkeys were released in the Salmon Region during this reporting period (Table 7).

### **Management Implications**

Current population levels can probably sustain limited recreational harvest. However, access to private lands, where most wild turkeys occur, will be critical to developing harvest management

and opportunity. Available winter habitat and environmental conditions will likely limit wild turkey populations to low levels. In addition tolerances for turkeys on private lands and resulting depredation issues may limit social carrying capacity in years to come.

## **Rabbits and Hares**

### **Abstract**

Rabbits and hares receive little emphasis from sportsmen or wildlife managers in the Salmon Region. Individual hunters have inquired about them in the past, asking for potential hunting areas, but there has never been a high demand for opportunity.

### **Population Surveys**

No production data were collected during this reporting period.

### **Harvest Characteristics**

The Salmon Region contains populations of both cottontails and pygmy rabbits. Harvest seasons for pygmy rabbits were closed in 2002. Although pygmy rabbits do not have ESA classification they have a state “imperiled (S2)” classification. 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 9). No snowshoe hare effort was recorded for the region in 2018 and cottontail effort and harvest was minimal. 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. Recent large-scale fires in the region may impact snowshoe hare populations, but to the positive or negative is unknown.

### **Management Implications**

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

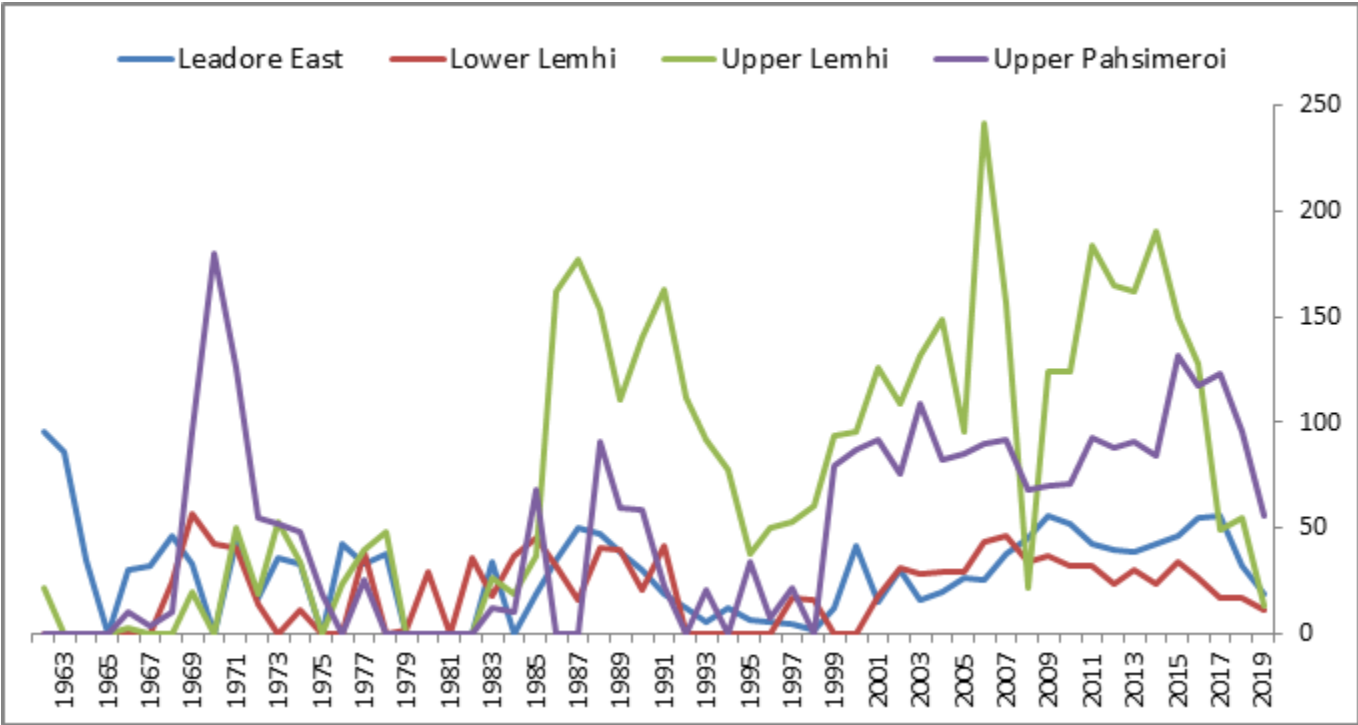


Figure 1. Male attendance on four representative leks, Salmon Region, 1962-present

Table 1. Estimated pheasant harvest, Salmon Region, 2009-present.

Season	Hunters	Birds harvested	Hunter days	Birds/ hunter	Birds/ hunter day
2009	54	78	123	1.4	0.6
2010	109	145	259	1.3	0.6
2011	194	422	934	2.2	0.5
2012	154	1490	941	9.7	1.58
2013	73	0	208	0	0
2014	13	9	27	7.3	0.4
2015	60	174	299	2.9	0.6
2016	ND	ND	ND	ND	ND
2017	309	519	761	1.7	0.7
2018	7	0	15	0	0
3-year avg.	158	519	388	1.7	0.7

Table 2. Estimated forest grouse harvest, Salmon Region, 2009-present.

Season	Hunters	Birds harvested	Hunter days	Birds/ hunter	Birds/ hunter day
2009	1,728	3,517	7,984	2.0	0.4
2010	1,024	4,556	9,022	4.5	0.5
2011	1,09	3,636	4,364	3.6	0.8
2012	1,09	4,451	10,693	4.4	0.4
2013	2,375	6,040	25,751	2.5	0.2
2014	1,776	4,053	14,021	2.3	0.3
2015	1,158	3,603	11,017	3.1	0.3
2016	879	2,358	5,409	2.6	0.4
2017	738	1,887	2,353	2.6	0.8
2018	919	4,451	3,549	4.8	1.3
3-year avg.	845	2,899	3,770	3.3	0.8

Table 3. Male greater sage-grouse counted on Lower Lemhi lek route, Salmon Region, 2010-present.

Year	Lower Lemhi lek	Lower Lemhi lek route
2010	13	32
2011	13	29
2012	15	23
2013	19	30
2014	14	24
2015	19	34
2016	17	27
2017	12	16
2018	11	17
2019	9	9
3-year avg.	11	14

Table 4. Estimated greater sage-grouse harvest, Salmon Region, 2009-present.

Season	Telephone survey		
	Hunters	Birds harvested	Birds/hunter day
2009 <sup>a</sup>	189	182	0.4
2010	142	135	0.5
2011	120	66	0.3
2012	182	208	0.6
2013	116	85	0.7
2014	145	112	0.8
2015	147	233	1.6
2016	138	138	0.3
2017	114	142	0.6
2018	150	192	0.6
3-year avg.	134	157	1.5

<sup>a</sup> Season reduced from 23 day, 2 bird daily limit to 7 day, 1 bird daily limit.

Table 5. Estimated chukar harvest, Salmon Region, 2009-present.

Season	Hunters	Birds harvested	Hunter days	Birds/ hunter	Birds/ hunter day
2009	674	5,587	3,833	8.3	1.5
2010	712	3,321	2,335	4.7	1.4
2011	451	1,483	1,483	3.3	1.0
2012	1,045	4,874	3,983	3.8	4.7
2013	933	3,225	3,474	5.7	0.9
2014	427	1,994	3,098	4.7	0.6
2015	582	5,685	4,964	9.38	1.2
2016	654	4,005	1,995	6.1	2
2017	258	398	686	1.5	0.6
2018	288	246	2745	0.9	0.1
3-year avg.	400	1,549	1,809	2.8	0.9

Table 6. Estimated gray partridge harvest, Salmon Region, 2009-present.

Season	Hunters	Birds harvested	Hunter days	Birds/ hunter	Birds/ hunter day
2009	120	399	174	3.3	2.3
2010	57	273	166	4.8	1.6
2011	2	16	14	6.5	1.2
2012	126	112	728	0.9	0.2
2013	47	82	273	5.8	0.3
2014	28	33	117	1.2	0.3
2015	91	139	168	1.5	1.8
2016	85	90	90	1.1	1.0
2017	24	0	67	0	0
2018	ND	ND	ND	ND	ND
3-year avg.	55	90	79	1.1	1.0



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

Year	Sub-species <sup>a</sup>	Release site - GMU	Birds released			New or supplemental release
			M	F	Total	
1983	R	Shoup Bridge area - 28	0	16	16	N
	M	Shoup Bridge area - 28	2	3	5	S
1985	R	Shoup Bridge area - 28	5	0	5	S
1991	M	Shoup Bridge area - 28	3	12	15	S
	M	Salmon River - 36B	4	21	25	N
1993	M	Fourth of July Creek - 21A	13	12	25	N
	M	Salmon River - 36B	6	4	10	S
1999	M	Salmon River - 37			50	N
	M	Salmon River - 28			14	N
2015	U	Tower Creek - 21A	2	6	8	N
2015	U	Carmen Creek - 21A	13	41	54	N
2016	U	Tower Creek - 21A	6	11	17	S
2016	U	Carmen Creek - 21A		9	9	S
2016	U	Unspecified - 21A		44	44	S
2018	U	Big Flat – 21A			25	S
2018	U	Tower Creek – 21A			14	S

<sup>a</sup> M = Merriam's; R = Rio Grande.

Table 8. Spring turkey harvest, Salmon Region, 2019.

Hunt type	Year <sup>a</sup>	Number of hunts	Permits available	Hunters	Birds harvested	Total days hunted
CH	2014	2	20 <sup>a</sup>	19	13	111
CH	2015	2	20 <sup>a</sup>	14	12	41
CH	2016	2	25 <sup>b</sup>	25	21	79
CH	2017	2	25 <sup>b</sup>	25	11	41
CH	2018	2	30	19	22	160
CH	2019	3	60	43	17	115
3-year avg.				29	17	105

Table 9. Estimated cottontail harvest, Salmon Region, 2009-present.

Season	Hunters	Cottontails harvested	Days hunted	Cottontails/ hunter	Cottontails/ hunter day
2009	46	213	253	4.6	0.8
2010	83	216	396	2.6	0.5
2011	42	115	94	2.8	1.2
2012	93	649	406	7	1.6
2013	46	45	48	1.0	1.0
2014	74	92	473	3.0	0.4
2015	84	372	979	4.4	0.4
2016	5	21	53	4.0	0.4
2017	6	24	24	4.0	1.0
2018	ND	ND	ND	ND	ND
3-year avg.	6	23	39	4	0.7

**APPENDIX A**  
**IDAHO**  
**2018 SEASON**  
**UPLAND GAME RULES**

# Idaho Upland Game, Turkey & Furbearer

2018 & 2019 Seasons and Rules



*Effective February 1, 2018 to June 30, 2020*

*See Migratory Bird Seasons and Rules for Crow, Doves and Sandhill Crane*

**Idfg.Idaho.gov**



## FOREST GROUSE: DUSKY (BLUE), RUFFED, AND SPRUCE

### AREA 1

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

### Seasons

2018 — August 30 through January 31, 2019

2019 — August 30 through January 31, 2020

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

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

### AREA 2

Remainder of the state.

### Seasons

2018 — August 30 through December 31

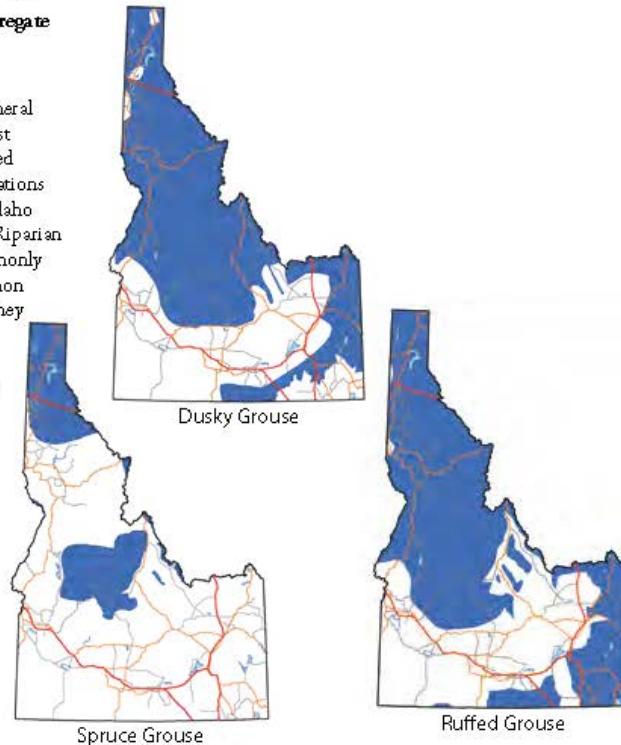
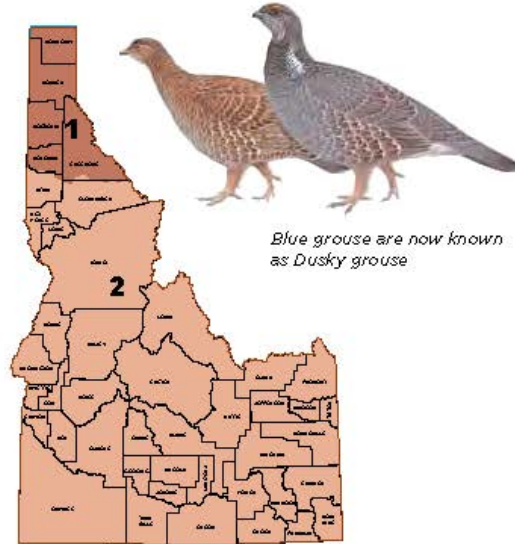
2019 — August 30 through December 31

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

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

### Forest Grouse

**Distribution and Habitat Use:** Shaded area(s) show general distribution of these species. Idaho's three species of forest grouse are all native to the state. In northern Idaho, ruffed grouse are the most common forest grouse. Good populations are also found in the mountains of central and eastern Idaho and southeastern Idaho west to the Sublett Mountains. Riparian habitats and other moist mountain brush areas are commonly used by these birds. Dusky (blue) grouse are more common than other grouse in most southern Idaho mountains. They favor high elevation sagebrush and mountain shrub areas for nesting, springs and stream banks for rearing young and rely heavily on Douglas fir for fall and winter food and cover. The sparsely-distributed spruce grouse is found in dense conifer forests, generally from the Salmon and Payette river drainages north.





# 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, Jerome, Kootenai, Latah, Lewis, Lincoln, Minidoka, Nez Perce, Owyhee, Payette, Shoshone, Twin Falls, Valley, and Washington counties.

## Seasons

2018 — September 15 through January 31, 2019

2019 — September 21 through January 31, 2020

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

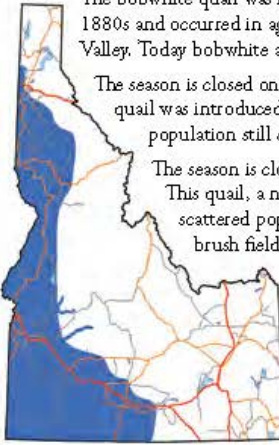
Possession Limit ..... **30 in the aggregate**

## AREA 2

Remainder of the state: **CLOSED**

## Quail

**Distribution and Habitat Use:** Shaded area(s) show general distribution of these species. There are three introduced and one native species of quail in Idaho. The California (valley) quail, which occurs from Twin Falls west to the Oregon border and north to the Palouse Prairie, is the most common. Good populations live along rivers, streams and other areas of abundant water and brushy cover below about 3,500 feet elevation.



The bobwhite quail was introduced to Idaho in the 1880s and occurred in agricultural areas of the Boise Valley. Today bobwhite are rare.

The season is closed on Gambel's quail. The Gambel's quail was introduced near Salmon in 1917, and a population still exists there.

The season is closed on mountain quail. This 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. 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.

California Quail



## MOUNTAIN QUAIL SIGHTINGS WANTED!

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

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



### What to Look For

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



## CHUKAR AND GRAY PARTRIDGE ENTIRE STATE OPEN

### Seasons

2018 — September 15 through January 31, 2019

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

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

2019 — September 21 through January 31, 2020

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

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

### Chukar

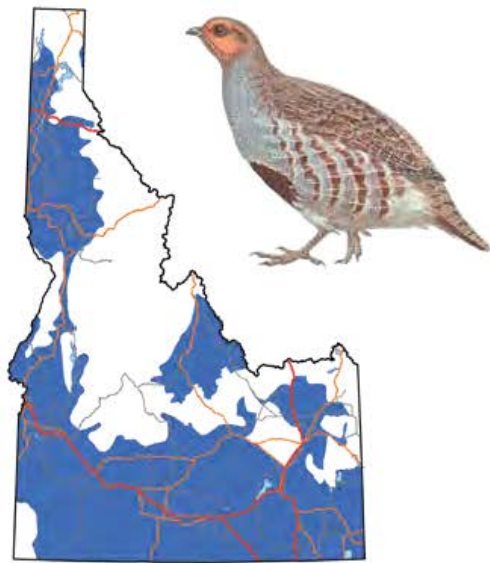
**Distribution and Habitat Use:** Shaded areas show general distribution of chukar partridge. This species was introduced into Idaho from Asia. They are common in suitable habitat along the Salmon, Snake and Boise rivers, and along other river drainages of southern and central Idaho up to an elevation of about 5,000 feet. Chukar habitat consists of steep, rocky canyons with grassy and brushy vegetation.



© Jeff Kretzer




Chukar

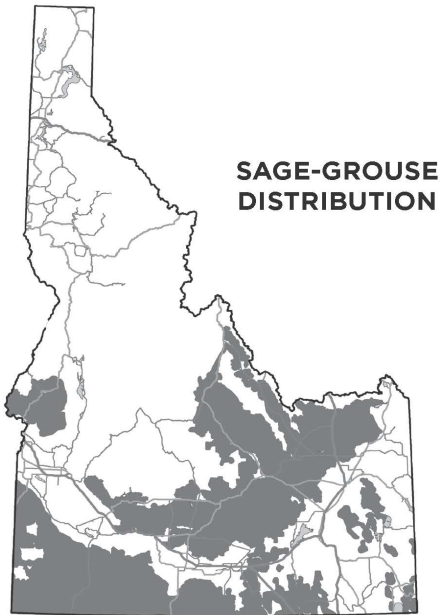


Gray Partridge

### Gray Partridge

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

**8 Upland Game, Turkey & Furbearer, 2018 & 2019 Seasons & Rules**  [idfg.idaho.gov](http://idfg.idaho.gov)



**SAGE-GROUSE DISTRIBUTION**

**SAGE-GROUSE**

This native grouse is widely distributed in areas with large blocks of sagebrush habitat throughout southern Idaho. Sagebrush is a crucial winter food for sage-grouse and also provides them with nesting and roosting cover during the rest of the year. Wet places, including agricultural lands, are important feeding areas for hens with chicks and are heavily used by sage-grouse during the fall in dry years.



**Idaho Department of Fish and Game**  
For more information please visit: [idfg.idaho.gov](http://idfg.idaho.gov)

Idaho Department of Fish and Game adheres to all applicable state and federal laws and regulations related to discrimination on the basis of race, color, national origin, age, gender, disability or veteran's status. If you feel you have been discriminated against in any program, activity, or facility of Idaho Fish and Game, or if you desire further information, please write to: Idaho Department of Fish and Game, P.O. Box 25, Boise, ID 83707 OR U.S. Fish and Wildlife Service, Division of Federal Assistance, Mailstop: MBSP-4020, 4401 N. Fairfax Drive, Arlington, VA 22203, Telephone: (703) 358-2156. This publication will be made available in alternative formats upon request. Please contact the Department of Fish and Game for assistance.

Costs associated with this publication are available from IDFG in accordance with section 60-202, Idaho Code. Sage-grouse Seasons and Rules 2019, 41918, 8/2019 10,000, Glenna Gomez

**2019 SAGE-GROUSE SEASONS & RULES**

*Sage-grouse seasons open September 21*



**Seven-day season, one bird limit:** in open areas south of the Snake River.  
**Two-day season, one bird limit:** in open areas north of the Snake River.

**CLOSED AREAS:**

- Eastern part of the state: east of Interstate 84 and south of Interstate 86; east of Interstate 15 from the Utah border to the Montana border; west of Interstate 15 from State Highway 33 north to south of State Highway 22.
- Washington, Adams, Payette and Gem counties
- Elmore County north and west of U.S. Highway 20 and south of Interstate 84
- Northwestern Owyhee County, north and west of the Mud Flat-Juniper Mountain Road

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

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

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

**BE SURE OF YOUR TARGET**



**Sharp-tailed Grouse**

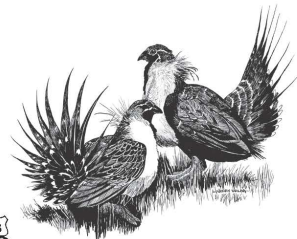
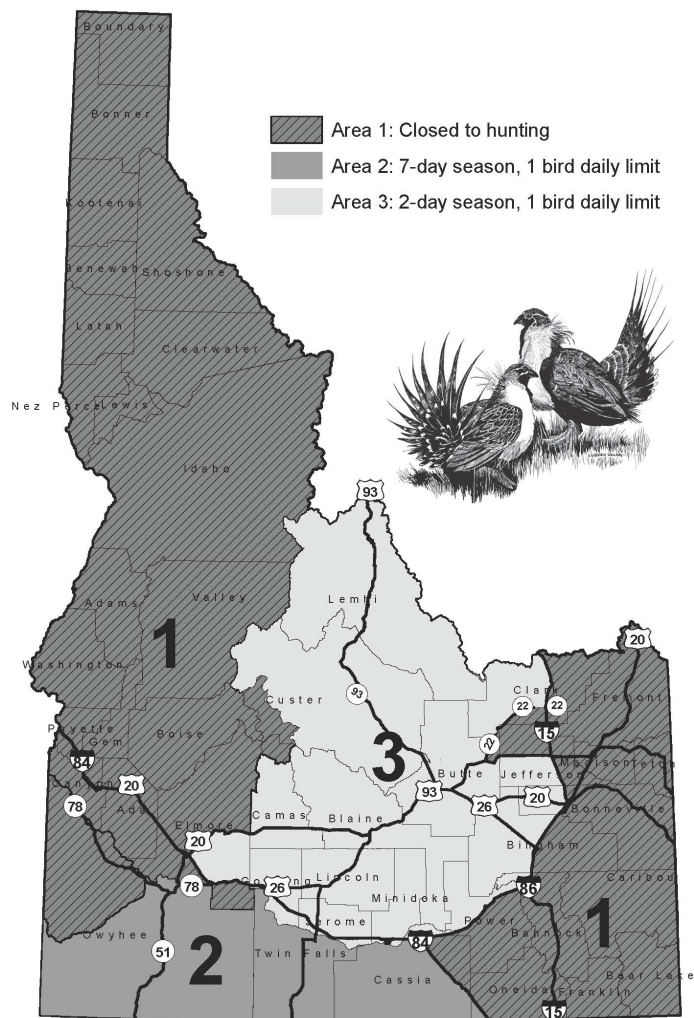


**Sage-grouse**

**Refer to the 2018 and 2019 Upland Game, Furbearer and Turkey Seasons and Rules for general upland gamebird rules, license and permit information. See Page 9-11 for important grouse identification information.**







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



### AREA BOUNDARY DESCRIPTIONS

#### Area 1

All parts of the state not included in Areas 2 or 3; closed.

#### Area 2

2019 Season: September 21 through September 27

Daily Bag Limit: 1

Possession Limit: 2

- Cassia County south and west of Interstate 84
- Oneida County west of Interstate 84
- Owyhee County south and east of the Mud Flat-Juniper Mountain Road
- Twin Falls County

#### Area 3

2019 Season: September 21 and September 22

Daily Bag Limit: 1

Possession Limit: 2

- Bannock and Power counties north of Interstate 86 and Bannock County west of Interstate 15
- Bingham County west of Interstate 15
- Blaine County, except within the Salmon River drainage
- Bonneville County west of Interstate 15
- Butte County, except north of State Highway 33 and southeast of State Highway 22
- Camas, Gooding, Jerome, Lemhi, Lincoln, and Minidoka
- Cassia County north of Interstate 86
- Clark County west of Interstate 15 and north of State Highway 22
- Custer County, except within the Salmon River drainage upstream from and including Valley Creek
- Elmore County east and south of U.S. Highway 20 and north of Interstate 84 from Exit 95 east to the county line
- Jefferson County west of Interstate 15 and south of State Highway 33

# SHARP-TAILED GROUSE



## AREA 1

Bingham and Clark counties east of Interstate 15, Franklin, Fremont, Jefferson counties 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 counties 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 counties south of Interstate 86.

## Seasons

2018 — October 1 through October 31

2019 — October 1 through October 31

Daily Bag Limit..... 2

Possession Limit ..... 6

**Sage/Sharp-tailed Grouse Permit Validation:** Any person hunting sage- or sharp-tailed grouse must have in possession their hunting license with a sage/sharp-tailed grouse permit validation. See pages 47, 50-52.



## AREA 2

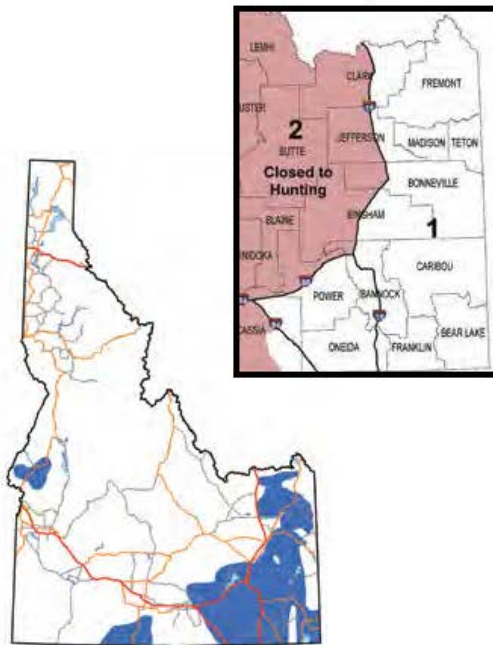
Remainder of the state: **CLOSED.**

## 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, improper livestock grazing, and human development, among other factors, have reduced this grouse's range to areas mostly in southeastern Idaho.



Agricultural lands enrolled in the Conservation Reserve Program currently provide important habitat for this species and have led to increased populations since 1986. Good populations still exist from Fremont County south to Utah in grasslands associated with chokecherry, sagebrush, hawthorn, serviceberry, bitterbrush and other brushy cover.



Columbian Sharp-tailed Grouse



## PHEASANTS - ALL VARIETIES

### NO SEASON ON HEN (FEMALE) PHEASANTS

#### AREA 1

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

#### Seasons

2018 — October 13 through December 31

2019 — October 12 through December 31

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

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

#### AREA 2

Bannock, Bear Lake, Bingham, Bonneville, Butte, Caribou, Clark, Custer, Franklin, Fremont, Jefferson, Lemhi, Madison, Oneida, Power, and Teton counties. For shooting hours on Wildlife Management Areas (WMAs) see page 13.

#### Seasons

2018 — October 20 through November 30

2019 — October 19 through November 30

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

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

#### AREA 3

Ada, Adams, Blaine, Boise, Camas, Canyon, Cassia, Elmore, Gem, Gooding, Jerome, Lincoln, Minidoka, Owyhee, Payette, Twin Falls, Valley, and Washington counties (including all islands in the Snake River except Patch and Porter Islands). For shooting hours on WMAs see page 13.

#### Seasons

2018 — October 20 through December 31

2019 — October 19 through December 31

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

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

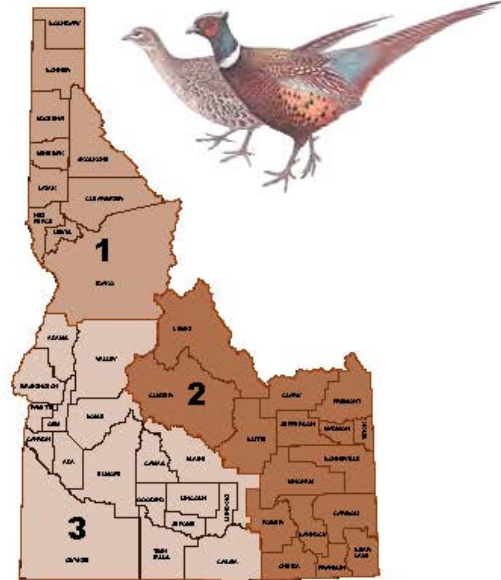
#### Youth Hunt Season

2018 — October 6 through October 12

2019 — October 5 through October 11

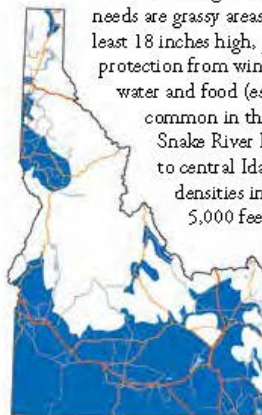
Statewide the season begins one-half hour before sunrise. It is open statewide for all licensed hunters 17 years of age or younger. All youth hunters must be accompanied by an adult 18 years or older.

\*An adult may not accompany more than two youth at a time.



#### 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.

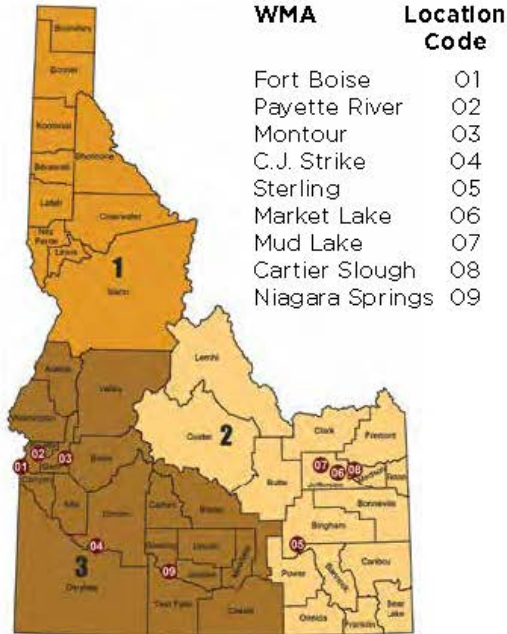


Ring-necked Pheasant



## WILDLIFE MANAGEMENT AREA (WMA) UPLAND GAME BIRD PERMIT

The Idaho Department of Fish and Game releases pheasants at nine WMAs in southern Idaho. Any person 18 years old or older must have a valid WMA Upland Game Bird Permit in possession while hunting pheasants at the WMAs listed below. Each permit allows the take of six pheasants and multiple permits may be purchased.



### AREA 1

**No Seasons**

### AREA 2

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

#### Seasons

2018 — October 20 through November 30

2019 — October 19 through November 30

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

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

### AREA 3

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

#### Seasons

2018 — October 20 through December 31

2019 — October 19 through December 31

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

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

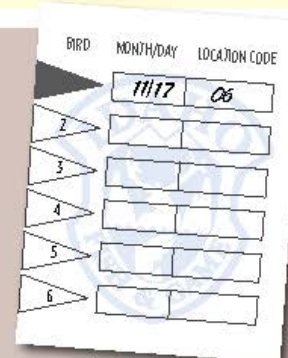
**Shooting hours for upland game birds are from 10AM to one-half hour after sunset on the following WMAs where pheasants are stocked: C.J. Strike, Cartier Slough, Fort Boise, Market Lake, Montour, Mud Lake, Niagara Springs, Payette River and Sterling.**

### PERMIT VALIDATION

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

- ✓ Validate their permit by entering the harvest date and location in non-erasable ink.
- ✓ Remove a notch from the permit for each pheasant taken.

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



# 2018 RED SQUIRREL SEASONS & RULES

*Red Squirrel season opens  
August 30 through March 31*




---

## 2018 — August 30 through March 31, 2019

Daily Bag Limit.....8

Possession Limit.....24

## 2019 — August 30 through March 31, 2020

Daily Bag Limit.....8

Possession Limit .....24

---

### Unlawful Methods of Take for Upland Game Animals

No person shall take upland game animals:

- From one-half hour after sunset to one-half hour before sunrise.
- With a trap, snare, net, or shotgun using shotgun shells exceeding 3 1/2 inches in length.
- By the use or aid of any electronic call.



Shaded area shows general distribution of Red Squirrel

Refer to the 2018 and 2019 Upland Game, Furbearer and Turkey Seasons and Rules for general upland game animals rules, license and permit information.



# UPLAND GAME ANIMALS COTTONTAIL RABBITS AND SNOWSHOE HARES



## Cottontail Rabbit Seasons

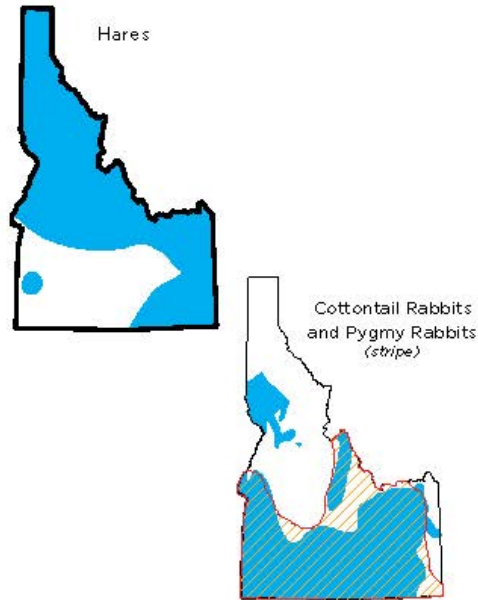
2018 — August 30 through <b>March 31, 2019</b>	
Daily Bag Limit.....	8
Possession Limit.....	24
2019 — August 30 through <b>March 31, 2020</b>	
Daily Bag Limit.....	8
Possession Limit .....	24

## Snowshoe Hare Seasons

2018 — August 30 through March 31, 2019	
Daily Bag Limit.....	8
Possession Limit .....	24
2019 — August 30 through March 31, 2020	
Daily Bag Limit.....	8
Possession Limit .....	24

**Pygmy Rabbit Season Is CLOSED**

Shaded areas show general distribution of these species



**To correctly distinguish cottontail rabbits (season OPEN) and pygmy rabbits (season CLOSED), check for these characteristics:**

### Cottontail Rabbit (Season Is OPEN)

- Tail:** dark above and white underneath.
- Size:** More than one foot in length (13.5-16.6 inches)



© Justin White

### Pygmy Rabbit (Season Is CLOSED)

- 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.



© Beth Wasserbury



© Beth Wasserbury





## TURKEY GENERAL INFORMATION

### Youth Hunts for Turkeys

A hunter must be 10 to 17 years of age to hunt in the general season youth hunt (April 8-14, 2018 and 2019).

A hunter applying for a controlled hunt open to youth only must be 10-17 years of age during the hunt for which they are applying, but they may not hunt until they are 10 years of age.

A 9-year old may purchase a junior hunting license and then purchase a turkey tag and/or apply for a controlled turkey hunt, but they may not hunt until they are 10 years of age.

Resident junior hunters under 12 must be accompanied by a licensed adult 18 years of age or older who must be close enough to be within normal conversation or hearing range without shouting or the aid of electronic devices.

Nonresident junior mentored hunters under 18 must be accompanied by a licensed adult 18 years of age or older close enough to be within normal conversation or hearing range without shouting or the aid of electronic devices.

### Tag and Permit Requirements

No person may hunt wild turkey without having in his or her possession the appropriate hunting license, general tag, extra tag, special unit tag and/or a controlled hunt permit.

A hunter may harvest as many turkeys as they have legal tags for that given year. There are three types of turkey tags available.

- **General Tag** (one tag per person per year)
- **Extra Tag** (two tags per person per year; cannot be used with a controlled hunt permit)
- **Special Unit Tags** (three tags per person per year)

Two turkey tags—one general and one extra tag—may be purchased for the spring turkey season before May 26. Special Unit Tags may be purchased at any time.

A hunter may use the general tag to hunt in any spring general season or use the general tag with a controlled hunt permit to

hunt in a controlled hunt. A second spring bird may be taken with an extra turkey tag. If the general tag is not filled during the spring hunt, then that unused tag can be used in a fall general or fall controlled hunt.

Spring and fall controlled hunt permits are valid only for specific areas and seasons as designated by hunt number, see pages 22-25. A turkey hunter *must* have a controlled hunt permit *and* a general tag to hunt in a spring or fall controlled hunt. A turkey hunter may only harvest one bird per controlled hunt permit. An extra tag may not be used with a controlled hunt permit.

A special unit tag may be used during general fall seasons in Units 1, 2, 3 and 5. A special unit tag is also valid for any designated turkey depredation hunt, see page 27.

### Controlled Hunts

See pages 22-25 for the list of hunts and page 26 for the controlled hunt worksheet.

Eligibility: Holders of valid hunting licenses are eligible to apply for controlled hunts subject to the following restrictions:

- Holders of a Nongame Hunting License, Hunting Passport, or a Three-Day Nonresident Small Game License may not apply for any controlled hunt.

### Application Dates:

- Spring hunt application period: February 1 – March 1. Results available by March 20. Any left over permits go on sale April 1.
- Fall hunt application period: May 1 – June 5. Results available by July 10. Any left over permits go on sale July 15 at 10:00AM MDT.

Applications may be submitted electronically at any Fish and Game license vendor, by telephone (1-800-554-8685), on the Fish and Game website, or by mail. Mail applications must be received at any Fish and Game office and postmarked no later than the last day of the application period. Applications will be taken beginning no earlier than the first day of the

QUICK TAG OVERVIEW	
If You Want to Hunt...	Buy a License AND a...
General Season, Spring Turkey	General or Extra Turkey Tag
General Season Fall Turkey	General or Extra Turkey Tag
Controlled Hunt, Spring Season	Apply for a Controlled Hunt Permit February 1 – March 1 and use the Permit with a <b>General</b> Turkey Tag. Any leftover permits go on sale April 1
Controlled Hunt, Fall Season	Apply for a Controlled Hunt Permit May 1 – June 5 and use the Permit with a <b>General</b> Turkey Tag. Any leftover permits go on sale July 15 at 10:00AM MDT

## Spring General Hunt Seasons

(map on pages 22)

- April 8-14, 2018 and April 8-14, 2019. General Spring Youth Hunt in Game Management Units open to General Season turkey hunting (see page 18 for age requirements) and open in Controlled Hunt areas to holders of a Youth Only Controlled Hunt Permit.
- April 15, 2018 through May 25, 2018 and April 15, 2019 through May 25, 2019. 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, 71, 73, 74, 75, 77 and 78.

## Fall General Hunt Seasons

(map on pages 23)

- August 30, 2018 through December 31, 2018 and August 30, 2019 through December 31, 2019. General Fall Hunt in Game Management Units 1, 2 (except Farragut State Park and Farragut WMA) 3, 4, 4A, 5, 6, 8, 8A, 10A, 11, 11A, 13, 14, 15, 16, and 18.
- August 30, 2018 through October 9, 2018 and August 30, 2019 through October 9, 2019. General Fall Hunt in Game Management Units 10, 12, 16A, 17, 19, and 20.
- September 15, 2018 through October 31, 2018 and September 15, 2019 through October 31, 2019. General Fall Hunt in Game Management Units 73, 74, 75, 77, and 78.

## Bag and Possession Limits

- The daily bag limit is **two** bearded turkeys per day in spring. In fall, the daily bag limit is equal to the number of tags possessed. 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

- **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.
- **Extra tag** is valid for spring general hunt seasons and may be used during fall general seasons. Cannot be used with a controlled hunt permit. Two tags per person per year.
- **Special unit tag** is valid for the fall season in Units 1, 2, 3 or 5. The special unit tag is also valid for any designated depredation hunt during the calendar year, see page 27.

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

## Species Identification

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

## Shooting Hours

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

## IDAHO'S TRESPASS LAW *Know Before You Go!*

**No person may enter private land to hunt, fish, trap or retrieve game without permission if the land is**

- Cultivated
- OR Posted with signs where a public road enters and leaves property through or along which the public has a right-of-way.
- OR Posted with "No Trespassing" or similar signage every 660 feet (1/4th mile) or at all reasonable access points,
- OR Posted with 100 square inches of high visibility orange paint every 660 feet or all reasonable access points,
- OR Posted with high visibility orange paint on the top 18 inches of a metal fence post every 660 feet or all reasonable access points.

Conviction of trespass on posted private property carries a mandatory one-year revocation of hunting/fishing/trapping licenses.

Federal law prohibits unauthorized trespass on Indian-owned reservation lands for hunting, fishing, or trapping purposes.

It is illegal for anyone to post public land that is not held under an exclusive control lease.

**Refer to Idaho Code 36-1603**

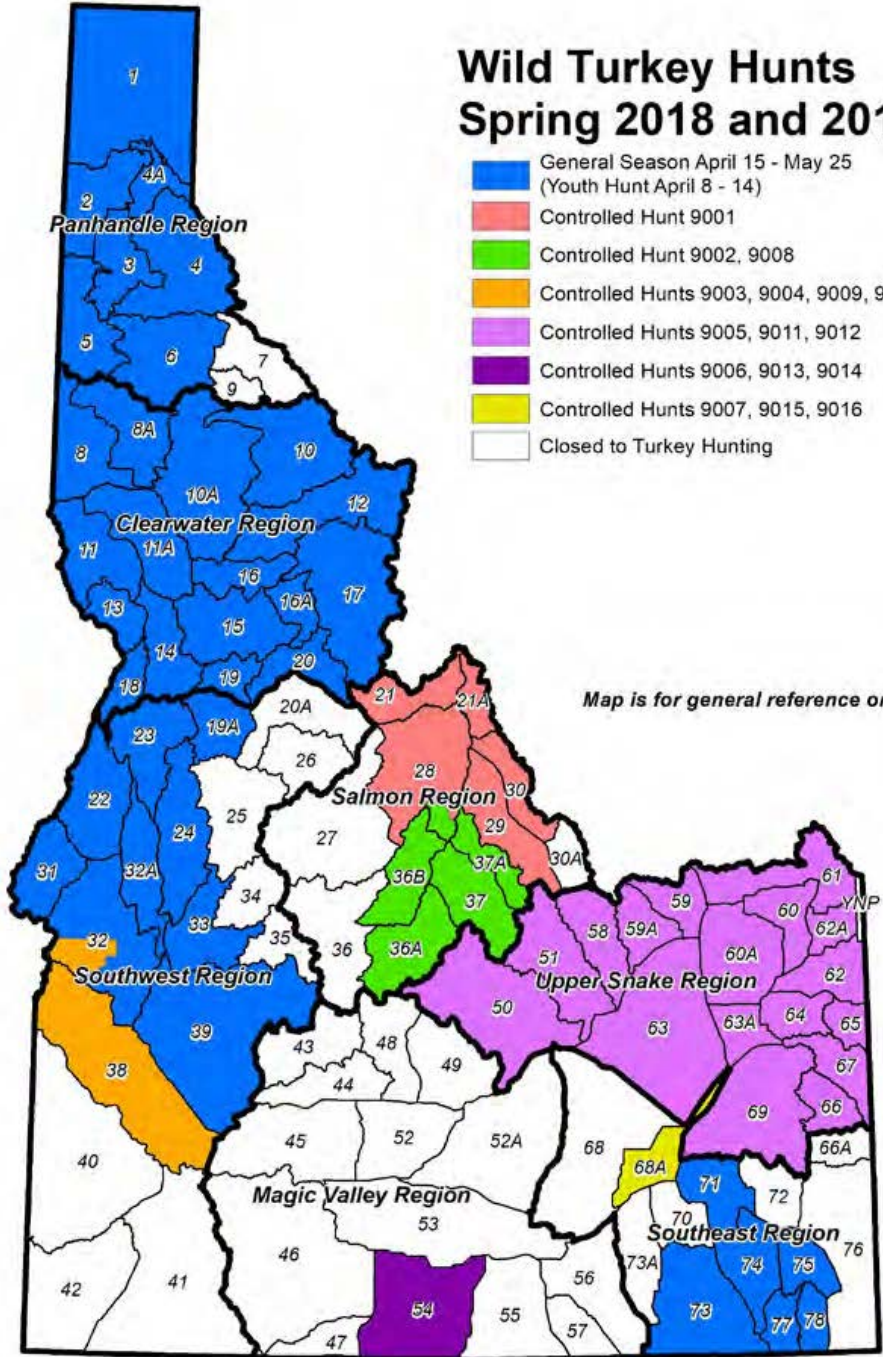
<https://legislature.idaho.gov/statutesrules/ldstat/Title36/>





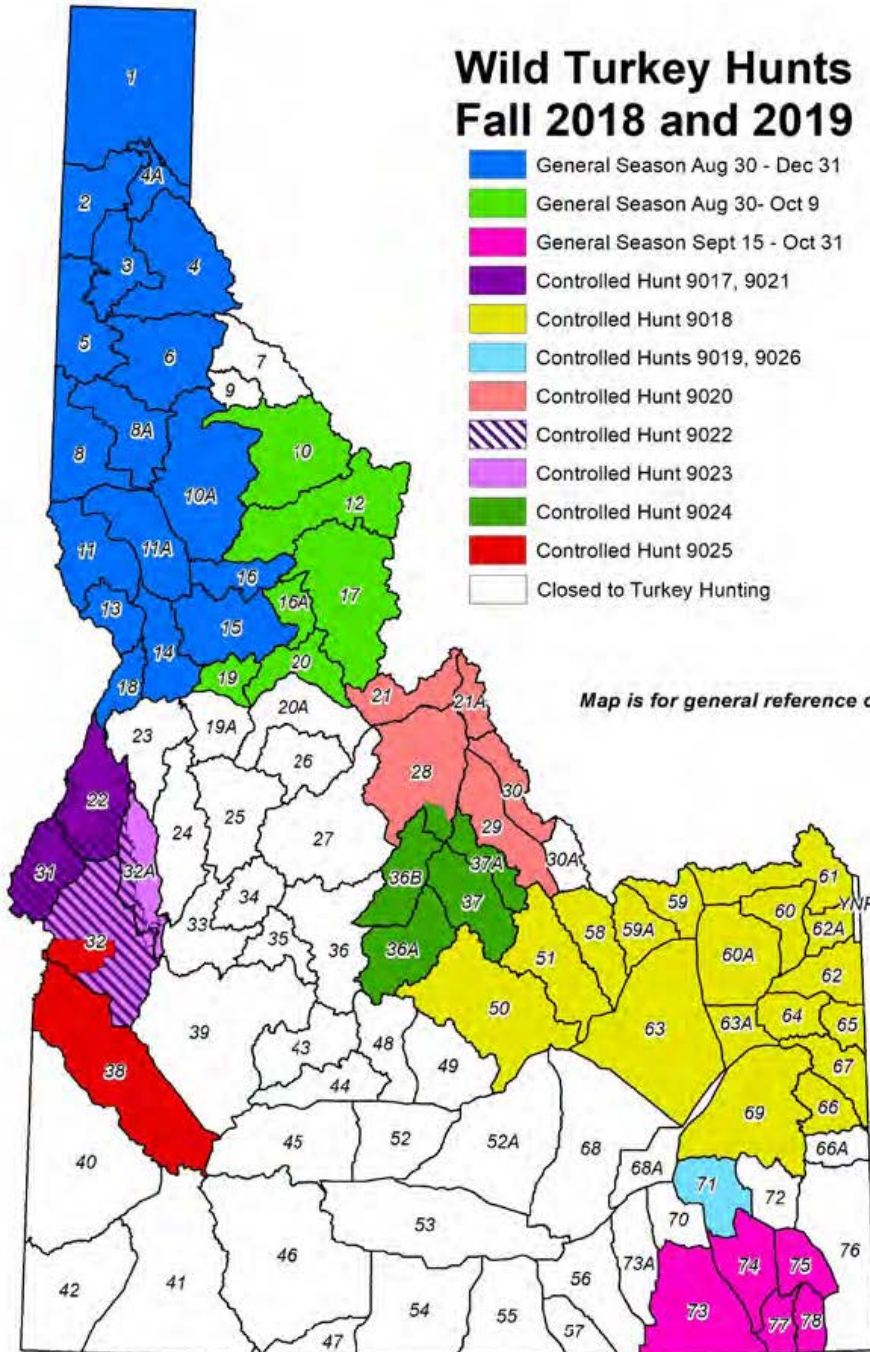
# Wild Turkey Hunts Spring 2018 and 2019

- General Season April 15 - May 25  
(Youth Hunt April 8 - 14)
- Controlled Hunt 9001
- Controlled Hunt 9002, 9008
- Controlled Hunts 9003, 9004, 9009, 9010
- Controlled Hunts 9005, 9011, 9012
- Controlled Hunts 9006, 9013, 9014
- Controlled Hunts 9007, 9015, 9016
- Closed to Turkey Hunting



# Wild Turkey Hunts Fall 2018 and 2019

- General Season Aug 30 - Dec 31
- General Season Aug 30- Oct 9
- General Season Sept 15 - Oct 31
- Controlled Hunt 9017, 9021
- Controlled Hunt 9018
- Controlled Hunts 9019, 9026
- Controlled Hunt 9020
- Controlled Hunt 9022
- Controlled Hunt 9023
- Controlled Hunt 9024
- Controlled Hunt 9025
- Closed to Turkey Hunting



Map is for general reference only.

Turkey Hunt Maps



## FALL

Fall hunt application period: May 1 – June 5. Any left over permits go on sale July 15 at 10:00AM MDT.

2018-2019 Controlled Hunts YOUTH ONLY			
↓	Use these numbers on your controlled hunt application.	Youth Hunts - See pages 18 and 53 for details.	
Hunt No	Controlled Hunt Area Descriptions	Hunts	Permits
9017	22-1: All of Units 22, 31	Youth Hunt September 1 - October 9	20
9018	50-1: 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*
9019	71: All of Unit 71	Youth Hunt September 15 - December 31	100
2018-2019 Controlled Hunts			
Hunt No	Controlled Hunt Area Descriptions	Hunts	Permits
9020	21A-1: All of Units 21, 21A, 29, 30, and that portion of Unit 28 downstream from the Hat Creek drainage.	September 15 - December 31 Access is Limited <i>(Recommended do not apply unless you have permission to access private property)</i>	5
9021	22-1: All of Units 22, 31	September 15 - October 9	75
9022	22-2: All of Units 22, 31, 32 (except that portion of Payette County) outside the National Forest System boundary.	October 10 - November 30	75
9023	32-1: All of Units 32 (except that portion in Payette County), 32A	September 15 - October 9	75
9024	36B-1: All of Units 36A, 36B, 37, 37A, and that portion of Unit 28 upstream from and including the Hat Creek drainage.	September 15 - December 31 Access is Limited <i>(Recommended do not apply unless you have permission to access private property)</i>	30
9025	38-1: All of Unit 38 and that portion of Unit 32 in Payette County.	September 15 - October 9 Access is Limited	60
9026	71: All of Unit 71	September 15 - November 30	200
*See page 44 for areas closed to turkey hunting, i.e., federal refuges, bird refuges, active bald eagle nests, etc.			
Hunters: Please check controlled hunt area descriptions, as they may change annually. For Game Management Unit boundary descriptions, please see current Big Game Seasons and Rules Brochure.			



© Andrea Reiman

Turkey Controlled Hunt Seasons



## WILD TURKEY CONTROLLED HUNT SEASONS 2018 - 2019

### SPRING

Spring hunt application period: February 1 - March 1. Any left over permits go on sale April 1.

#### 2018-2019 Controlled Hunts YOUTH ONLY

Use these numbers on your controlled hunt application.		Youth Hunts - See pages 18 and 53 for details.	
Hunt No	Controlled Hunt Area Descriptions	Hunts	Permits
9001	21A-1: All of Units 21, 21A, 29, 30, and that portion of Unit 28 downstream from the Hat Creek drainage	Youth Hunt April 8 - May 25 Access is Limited <i>(Recommended do not apply unless you have permission to access private property)</i>	5
9002	36B-1: All of Units 36A, 36B, 37, 37A, and that portion of Unit 28 upstream from and including the Hat Creek drainage.	Youth Hunt April 8 - May 25 Access is Limited <i>(Recommend do not apply unless you have permission to access private property)</i>	25
9003	38-1: All of Unit 38 and that portion of Unit 32 in Payette County.	Youth Hunt April 8 - April 24 Access is Limited	75
9004	38-1: All of Unit 38 and that portion of Unit 32 in Payette County.	Youth Hunt April 25 - May 25 Access is Limited	55
9005	50-1: All of Unit 50, 51, 58, 59, 59A, 60, 60A, 61, 62, 62A, 63, 63A, 64, 65, 66, 67, 69.	Youth Hunt April 8 - May 25	50*
9006	54: All of Unit 54.	Youth Hunt April 8 - May 25	30
9007	68A: All of Unit 68A.	Youth Hunt April 8 - May 25	15*

#### 2018-2019 Controlled Hunts

Hunt No	Controlled Hunt Area Descriptions	Hunts	Permits
9008	36B-1: All of Units 36A, 36B, 37, 37A, and that portion of Unit 28 upstream from and including the Hat Creek drainage.	April 15 - May 25 Access is Limited <i>(Recommend do not apply unless you have permission to access private property)</i>	30
9009	38-1: All of Unit 38 and that portion of Unit 32 in Payette County.	April 15 - April 30 Access is Limited	75
9010	38-1: All of Unit 38 and that portion of Unit 32 in Payette County.	May 1 - May 25 Access is Limited	50
9011	50-1: All of Unit 50, 51, 58, 59, 59A, 60, 60A, 61, 62, 62A, 63, 63A, 64, 65, 66, 67, 69.	April 15 - April 30	125*
9012	50-1: 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*
9013	54: All of Unit 54.	April 15 - May 5	30
9014	54: All of Unit 54.	May 6 - May 25	30
9015	68A: All of Unit 68A.	April 15 - April 30	15*
9016	68A: All of Unit 68A.	May 1 - May 25	15*

\*See page 44 for areas closed to turkey hunting, i.e., federal refuges, bird refuges, active bald eagle nests, etc.

Hunters: Please check controlled hunt area descriptions, as they may change annually. For Game Management Unit boundary descriptions, please see current Big Game Seasons and Rules Brochure.

**24** Upland Game, Turkey & Furbearer, 2018 & 2019 Seasons & Rules [idfg.idaho.gov](http://idfg.idaho.gov)





**Hunting Season**

Upland game birds and upland game animals may be taken by falconry during firearms seasons established for those species and during extended falconry seasons (see table below). During firearm seasons, falconers may take firearm season bag and possession limits. During extended falconry seasons, special limits apply.

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

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

There are special requirements regarding the capture, possession, transfer and use of birds of prey in Idaho. Contact a Fish and Game Office for more information.

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

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

**Special Restrictions On Hunting With Birds Of Prey**

Anytime a hunting bird of prey kills quarry that may not be taken under established rules, seasons, bag limits, or license requirements, the falconer must leave the dead quarry where it lies. Except that the bird of prey may feed upon the quarry before leaving the kill site.

All Idaho residents hunting by falconry must have in their possession a valid Idaho falconry permit, a valid hunting license and all necessary validations.

All nonresidents hunting by falconry must have in their possession a valid Idaho hunting license, all necessary validations and a valid falconry permit from their state of residence.



© Glenn Oakley

Extended Falconry Seasons, Bag and Possession Limit				
Species	Open and Closed Areas	Season Dates	Daily Bag Limit	Possession Limit
Forest grouse: dusky (blue), ruffed & spruce; California and bobwhite quail; chukar & gray partridge; sage- & sharp-tailed grouse; pheasants (all varieties)	All counties or parts of counties which have a firearms season are open to hunting by falconry.	August 15, 2018 - March 15, 2019 August 15, 2019 - March 15, 2020	3 of any kind and shall not include more than 1 pheasant (male or female), 1 sage-grouse, or 1 sharp-tailed grouse except during firearm seasons when those seasons' limits apply.	9 of any kind and shall not include more than 3 pheasant (male or female), 3 sage-grouse, or 3 sharp-tailed grouse
Crows	Open statewide.	October 1, 2018 - January 31, 2019 October 1, 2019 - January 31, 2020	No daily bag or possession limits	
Migratory game birds (ducks, coots, mergansers, Wilson's snipe, mourning dove)	Open statewide.	These seasons shall coincide with the regular firearms seasons for these species.	3 of any kind	9 of any kind
Cottontail rabbits	Open statewide.	March 1, 2018 - August 31, 2018 March 1, 2019 - August 31, 2019	2 of any kind	6 of any kind
Snowshoe hares	Open statewide.	April 1, 2018 - August 31, 2018 April 1, 2019 - August 31, 2019		

Falconry Seasons

Submitted by:

Micah Elstrom  
Regional Wildlife Manager

Clay Hickey  
Regional Wildlife Manager

Rick Ward  
Regional Wildlife Manager

Regan Berkley  
Regional Wildlife Manager

Mike McDonald  
Regional Wildlife Manager

Zach Lockyer  
Regional Wildlife Manager


Curtis Hendricks  
Regional Wildlife Manager


Greg Painter  
Regional Wildlife Manager

David Smith  
Grants Specialist

\_\_\_\_\_  
Data Coordinator

Approved by: IDAHO DEPARTMENT OF FISH AND GAME

  
\_\_\_\_\_  
Martha Wackenhut, Asst. Chief  
Bureau of Wildlife

  
\_\_\_\_\_  
Toby Boudreau, Chief  
Bureau of Wildlife

## FEDERAL AID IN WILDLIFE RESTORATION

The Federal Aid in Wildlife Restoration Program consists of funds from a 10% to 11% manufacturer's excise tax collected from the sale of handguns, sporting rifles, shotguns, ammunition, and archery equipment. The Federal Aid program then allots the funds back to states through a

formula based on each state's geographic area and the number of paid hunting license holders in the state. The Idaho Department of Fish and Game uses the funds to help restore, conserve, manage, and enhance wild birds and mammals for the public benefit. These funds are also used to

educate hunters to develop the skills, knowledge, and attitudes necessary to be responsible, ethical hunters. Seventy-five percent of the funds for this project are from Federal Aid. The other 25% comes from license-generated funds.

