

**IDAHO DEPARTMENT OF FISH AND GAME**

**Cal Groen, Director**

**Project W-170-R-33**

**Progress Report**



*Photo courtesy Paul Spurling.*

**WATERFOWL FALL AND WINTER SURVEYS, PRODUCTION,  
SUMMER BANDING, AND HARVEST**

Study II, Jobs 2 and 3  
October 1, 2008 to September 30, 2009

Prepared by:

Bryan Helmich ..... Panhandle Region  
Jay Crenshaw, Miles Benker..... Clearwater Region  
Steve Nadeau, Jake Powell ..... Southwest (Nampa) Region  
Jeff Rohlman .....Southwest (McCall) Region  
Randy Smith..... Magic Valley Region  
Toby Boudreau..... Southeast Region  
Daryl Meints, Russell Knight ..... Upper Snake Region  
Tom Keegan, Greg Painter ..... Salmon Region  
David Smith ..... Wildlife Bureau

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

September 2009  
Boise, Idaho



Findings in this report are preliminary in nature and not for publication without permission of the Director of the Idaho Department of Fish and Game.

The 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, or handicap. If you feel you have been discriminated against in any program, activity, or facility of the Idaho Department of Fish and Game, or if you desire further information, please write to: Idaho Department of Fish and Game, PO Box 25, Boise, ID 83707; or the Office of Human Resources, U.S. Fish and Wildlife Service, Department of the Interior, Washington, DC 20240.

This publication will be made available in alternative formats upon request. Please contact the Idaho Department of Fish and Game for assistance.

## TABLE OF CONTENTS

JOB 3. WATERFOWL FALL AND WINTER SURVEYS, BANDING, AND HARVEST .....	1
ABSTRACT .....	1
YOUTH WATERFOWL HUNT .....	1
STUDY OBJECTIVES .....	1
PROCEDURES .....	2
RESULTS .....	2
CURRENT MANAGEMENT PLAN GOALS .....	2
MANAGEMENT AREAS .....	2
POPULATION SURVEYS .....	3
HARVEST CHARACTERISTICS .....	3
CLIMATIC CONDITIONS .....	3
MANAGEMENT IMPLICATIONS .....	3
GEESE (ALL SPECIES) .....	4
CURRENT MANAGEMENT PLAN GOALS .....	4
MANAGEMENT AREAS .....	4
POPULATION SURVEYS .....	4
HARVEST CHARACTERISTICS .....	4
CLIMATIC CONDITIONS .....	5
MANAGEMENT IMPLICATIONS .....	5
SANDHILL CRANE .....	5
TRUMPETER SWAN .....	5
TUNDRA SWAN .....	5
AMERICAN COOT .....	6
WILSON’S SNIPE .....	6
JOB 2. WATERFOWL PRODUCTION AND SUMMER BANDING .....	7
ABSTRACT .....	7
STUDY OBJECTIVES .....	7
PROCEDURES .....	8
REGIONAL REPORTS .....	8
Panhandle Region .....	8
Clearwater Region .....	9

**TABLE OF CONTENTS (Continued)**

Southwest (Nampa) Region .....	9
Southwest (McCall) Region.....	10
Magic Valley Region .....	10
Southeast Region .....	10
Upper Snake Region .....	11
Salmon Region.....	13
REGIONAL REPORTS.....	13
Panhandle Region .....	13
Clearwater Region .....	14
Southwest (Nampa) Region .....	15
Southwest (McCall) Region.....	16
Magic Valley Region .....	16
Southeast Region .....	17
Upper Snake Region .....	18
Salmon Region.....	19
SANDHILL CRANE .....	19
CURRENT GOALS.....	20
REGIONAL REPORTS.....	20
Southwest (McCall) Region.....	20
Magic Valley Region .....	20
Southeast Region .....	21
Upper Snake Region .....	21
Salmon Region.....	22
TRUMPETER SWAN .....	22
REGIONAL REPORTS.....	22
Magic Valley Region .....	22
Southeast Region .....	22
Upper Snake Region .....	23
TUNDRA SWAN .....	23
AMERICAN COOT .....	23
WILSON’S SNIPE .....	23

## TABLE OF CONTENTS (Continued)

LITERATURE CITED .....	24
APPENDIX A.....	40

### LIST OF TABLES

DUCKS (ALL SPECIES).....	2
Table 1. Birds counted during the mid-winter waterfowl survey, 2000-2009.....	27
Table 2. Estimated statewide harvest of ducks obtained from the Department telephone survey, 1988-2008.....	28
Table 3. Estimated waterfowl harvest numbers from USFWS's waterfowl hunter survey for Idaho, 1988-2008. ....	29
Table 4. Canada geese counted in Idaho during the midwinter waterfowl survey by survey area, 2000-2009.....	30
Table 4. Estimated harvest of Canada geese from the Pacific Population (west of U.S. Hwy 93) obtained from the Department telephone survey, 1988-2008.....	31
Table 5. Estimated harvest of Canada geese from the Rocky Mountain Population (east of U.S. Hwy 93) obtained from the Department telephone survey, 1988-2008. ....	32
Table 6. Estimated statewide harvest of Canada geese obtained from the Department telephone survey, 1988-2008.....	33
Table 7. Ducks banded in Idaho by Department and USFWS personnel, 2009.....	34
Table 8. Mallards banded in Idaho by Department and USFWS personnel, 1991-2009.....	34
Table 9. Idaho goose population survey areas (RMP in gray), 2009 counts, three-year averages, and management objectives. ....	35
Table 10. Active nests and indicated pairs of Canada geese (RMP in gray) in Idaho, 2005-2009.....	36
Table 11. September aerial and ground-based counts of RMP greater sandhill cranes in eastern Idaho, 2005-2009.....	37
Table 12. Sandhill crane permit levels, estimated hunter participation, and harvest based on mail and telephone surveys, 2005-2009.....	38
Table 13. Age composition of sandhill crane harvest based on mail and telephone surveys, 2005-2009. ....	39

**TABLE OF CONTENTS (Continued)**

**LIST OF FIGURES**

Figure 1. Distribution of Pacific and Rocky Mountain Canada geese populations within Idaho. .... 25

Figure 2. Idaho Canada goose nesting survey areas. .... 26

**PROGRESS REPORT  
SURVEYS AND INVENTORIES**

<b>STATE:</b>	<u>Idaho</u>	<b>JOB TITLE:</b>	<u>Waterfowl Fall and Winter</u>
<b>PROJECT:</b>	<u>W-170-R-33</u>		<u>Surveys, Banding, and Harvest</u>
<b>SUBPROJECT:</b>	<u>1-7</u>	<b>STUDY NAME:</b>	<u>Upland Game and Waterfowl</u>
<b>STUDY:</b>	<u>II</u>		<u>Population Status and Trends</u>
<b>JOB:</b>	<u>3</u>		
<b>PERIOD COVERED:</b> <u>October 1, 2008 to March 31, 2009</u>			

**JOB 3. WATERFOWL FALL AND WINTER SURVEYS, BANDING, AND HARVEST**

**ABSTRACT**

The results of the midwinter waterfowl survey, conducted by regional personnel, and the results of harvest surveys are summarized and discussed. The midwinter waterfowl survey was conducted in January 2009. The 2009 count for total ducks and total waterfowl was up 17% and 2%, respectively, from the 2008 count, and up 9% and 1%, respectively, from the 10-year average (1999-2008). The U.S. Fish & Wildlife Service (USFWS) estimated that duck harvest was up 12% and goose harvest was up 58% from 2008 levels. The Department conducted a separate waterfowl harvest survey for the 2008 season. The estimated harvest for ducks and geese, were considerably higher (47% and 43%, respectively) than the USFWS harvest estimates.

**YOUTH WATERFOWL HUNT**

For the ninth year, the USFWS offered all states the option of holding a two-day youth waterfowl hunt during the 2008-2009 season. Pacific Flyway states that chose the option were required to reduce their regular seasons by two days so as not to exceed the 107-day maximum length for migratory bird seasons. States were permitted to hold the hunt outside the regular season framework, but regular-season limits applied. The Commission selected the option and chose September 27-28 for the hunt that was open to youth 12-15 years-of-age; it also chose full duck (including merganser), coot, and goose limits.

**STUDY OBJECTIVES**

1. Determine production and trends of resident waterfowl.
2. Estimate waterfowl harvest, hunter participation, and hunter opinions.
3. Determine waterfowl movements, distribution, and survival rates.

## **PROCEDURES**

1. Conduct fall and winter aerial counts of waterfowl.
2. Evaluate the usefulness of fall surveys and consider new techniques to assess waterfowl numbers.
3. Conduct a telephone survey of hunting license buyers.
4. Operate check stations or field checks.
5. Band waterfowl and monitor movements and survival rates.

Harvest data were collected and analyzed by the Bureau of Wildlife. Personnel stationed in the state's seven regions and one sub-region collected all other data.

## **RESULTS**

### **DUCKS (ALL SPECIES)**

#### **Current Management Plan Goals**

1. Reverse the decline in the number of duck hunters.
2. Reverse the decline in duck harvest.
3. Determine duck nesting success at least twice (every other year) on all Wildlife Management Areas (WMAs) where waterfowl production is a priority.
4. Maintain a 30% nest success for upland nesting ducks on WMAs where waterfowl production is a priority.
5. Develop and implement a predator management strategy for priority WMAs where nest success is less than 30%.
6. Establish duck production surveys in at least one region in cooperation with the USFWS.

#### **Management Areas**

Background and Management Philosophy: See the 2007 Waterfowl Annual Reports (Study II, Jobs 2 & 3) for a thorough history of the duck management areas in Idaho.

For the 2008-2009 season, the USFWS offered a 107-day season for ducks, snipe, and coot statewide. The regular season was 105 days with no split, and the two-day youth waterfowl season was held September 27-28.

The description, season framework, and bag and possession limits for each Management Area can be found in Appendix A.

### **Population Surveys**

The midwinter waterfowl survey was conducted in January 2009 (Table 1). The USFWS predicted a 2008 traditional area mallard breeding population of 7.7 million birds, which was similar to the 8.3 million bird estimate from 2008 (USFWS 2008).

### **Harvest Characteristics**

Telephone Survey: The Department estimated 377,800 ducks were harvested during the 2008-2009 hunting season (Table 2), which was an 8% decrease from the 2007-2008 estimate. The Department estimate was 47% above the USFWS estimate.

Federal Migratory Game Bird Harvest Information Program (FMGBHIP): The goal of the program is to obtain improved harvest estimates for all species. By federal mandate, states provide the USFWS with names and addresses of all migratory game bird hunters, from which the USFWS draws samples of hunters to survey. The Department has complied fully with the USFWS's request for information every year since the 1997-1998 season. The USFWS estimated 257,600 ducks were harvested in Idaho during the 2008-2009 hunting season, which was up 12.4% from the 2007-2008 estimate (Table 3).

Waterfowl check stations were operated at the Boundary Creek, McArthur Lake, Pend Oreille, and Coeur d'Alene River WMAs on the opening Saturday and Sunday of the 2008 duck season. A total of 177 hunters expended 760 hours of effort to harvest 245 ducks (1.38 ducks/hunter; 3.10 hours/duck).

### **Climatic Conditions**

Winter (November – February) 2008-2009 was warmer than normal, but received normal precipitation. As a result, wintering conditions for waterfowl were better than normal.

### **Management Implications**

The Department continued to meet its 1991-1995 Waterfowl Management Plan (WMP) goals to reverse the decline in the number of duck hunters and ducks harvested.

See the 2007 Waterfowl Annual Reports (Study II, Jobs 2 & 3) for a thorough history of the Idaho migratory waterfowl stamp and how the revenue it generated was spent. Currently, there is an annual budget of \$155,000 in the Habitat Improvement Program (HIP) for waterfowl habitat improvement or enhancement.

Future management will be directed toward improving habitat to attract more ducks as they migrate through Idaho. Habitat improvement will seek to increase local production and provide

maximum hunting opportunity within the framework authorized by the USFWS, while still meeting local population objectives.

## **GEESE (ALL SPECIES)**

### **Current Management Plan Goals**

1. Increase Idaho's breeding Canada goose populations and wintering populations.
2. Increase the annual goose harvest to 50,000 birds.
3. Maintain the average number of geese harvested per hunter per season above 3.0.
4. Increase hunter days to 130,000 annually.

### **Management Areas**

Background and Management Philosophy: Two populations of western Canada geese are recognized for management purposes, in the Pacific Flyway (Subcommittee on Rocky Mountain Canada Geese 2000). They include the Rocky Mountain Population (RMP) and the Pacific Population (PP). Both populations occur in Idaho (Figure 1). See the 2007 Waterfowl Annual Reports (Study II, Jobs 2 & 3) for a thorough history of the goose management areas in Idaho.

For the 2008-2009 season, the USFWS offered a 107-day season for geese statewide. The regular season was 105 days with no split, and the two-day youth waterfowl season was held September 27-28. The duck and goose seasons have opened concurrently since the 2003-2004 waterfowl season.

### **Population Surveys**

The midwinter waterfowl survey was conducted in January 2009 (Table 1).

### **Harvest Characteristics**

Telephone Survey: The Department used a mail-in/telephone survey to estimate goose harvest (Tables 4-6) for the 2008-2009 season. The estimate for 2008-2009 was 92,300 (Table 6), 7.3% above the estimate of 86,000 for 2007-2008.

FMGBHIP: The goal of the program is to obtain improved harvest estimates for all species. By federal mandate, states provide the USFWS with names and addresses of all migratory game bird hunters, from which the USFWS draws samples of hunters to survey. The Department has complied fully with the USFWS's request for information every year since the 1997-1998 season. The USFWS estimated 64,500 geese were harvested in Idaho during the 2008-2009 hunting season, which was up 57.7% from the 2007-2008 estimate (Table 3).

## **Climatic Conditions**

Winter (November – February) 2008-2009 was warmer than normal, but received normal precipitation. As a result, wintering conditions for waterfowl were better than normal.

## **Management Implications**

The Department continued to meet its 1991-1995 WMP goals for total harvest and harvest per hunter per season; however, the total days hunted statewide were below the WMP goal.

The Department will continue to implement the HIP program (discussed previously in the duck section) to improve wetland habitat for Canada geese. Future management will be directed toward improving habitat to attract greater numbers of geese as they migrate through Idaho. Habitat improvement will seek to increase local production and provide maximum hunting opportunity within the framework authorized by the USFWS, while still meeting local population objectives. Goose depredation problems are becoming significant in some urban areas and will require new strategies to manage these nuisance birds.

## **SANDHILL CRANE**

The Department's goals and objectives for the sandhill crane are the same as those for the Pacific Flyway (Subcommittee on Rocky Mountain Greater Sandhill Cranes 2007).

The RMP sandhill crane populations continued to receive increased management emphasis during the reporting period in the Magic Valley, Southeast, and Upper Snake regions because of continued landowner concerns over crop damage. Surveys of RMP greater sandhill cranes in these three regions were initiated in 1995 to document total sandhill crane numbers, arrival dates, distribution, and age ratios.

## **TRUMPETER SWAN**

In 2003, the Department wrote a study plan for a three-year project to evaluate the effectiveness of cygnet translocation to expand the winter distribution of trumpeter swans. The project included a graduate student project at the University of Idaho. Efforts to monitor neck-collared birds continued through the reporting period to evaluate the success of this effort.

The Department continues to monitor swan movements and distribution across Idaho. An implementation plan for the 1998 Pacific Flyway Trumpeter Swan Management Plan was completed in July 2002. Annual progress reports on this plan are available at the Pacific flyway website at [www.pacificflyway.org](http://www.pacificflyway.org).

## **TUNDRA SWAN**

The Department's 1991-1995 WMP goals for tundra swan are to (1) maintain current migrations through Idaho and (2) meet the demand for non-consumptive use. However, during the reporting period, this species received little management emphasis in Idaho. This is because the tundra

swan is not classified by the state as a game bird and the species benefits indirectly from other wildlife management programs.

### **AMERICAN COOT**

The Department's 1991-1995 WMP goals for American coot are to (1) maintain Idaho's population, (2) increase the harvest, and (3) provide maximum recreational opportunity. However, this species received little management emphasis during the reporting period. This is because the American coot is not a popular game bird in Idaho and because it benefits indirectly from other wildlife management programs.

### **WILSON'S SNIPE**

The Department's 1991-1995 WMP goals for Wilson's snipe are to (1) maintain Idaho's Wilson's snipe population and (2) maintain the harvest. However, during the reporting period, this species received little management attention. This is because the Wilson's snipe is not a popular game bird in Idaho and because it benefits indirectly from other wildlife management programs.

**PROGRESS REPORT  
SURVEYS AND INVENTORIES**

<b>STATE:</b>	<u>Idaho</u>	<b>JOB TITLE:</b>	<u>Waterfowl Production and</u>
<b>PROJECT:</b>	<u>W-170-R-33</u>		<u>Summer Banding</u>
<b>SUBPROJECT:</b>	<u>1-7</u>	<b>STUDY NAME:</b>	<u>Upland Game and Waterfowl</u>
<b>STUDY:</b>	<u>II</u>		<u>Population Status and Trends</u>
<b>JOB:</b>	<u>2</u>		
<b>PERIOD COVERED:</b>	<u>April 1, 2009 to September 30, 2009</u>		

**JOB 2. WATERFOWL PRODUCTION AND SUMMER BANDING**

**ABSTRACT**

In 2009, Idaho banded 2,058 mallards. Since 1991, 44,171 mallards have been banded in Idaho. Active nests of Pacific Population (PP) Canada geese counted on four survey areas in north Idaho totaled 285 in 2009. Of eight PP Canada goose flocks monitored in 2009, three met the Department's 1991-1995 Waterfowl Management Plan (WMP) active nest or indicated breeding pair objectives based on three-year averages (2007-2009). Of nine Rocky Mountain Population (RMP) Canada geese flocks counted with objectives, only one is meeting or exceeding the indicated breeding pair objectives based on three-year averages (2007-2009).

In 2009, 176 Canada geese were banded. After several years of transplanting geese in response to property damage/depredation complaints in the Southwest Region, none were moved from 2005-2009. No early September Canada goose hunts were held in 2008. In the Upper Snake Region, license dollars were utilized to oil Canada goose nests located on islands in Gem Lake under a permit from the U.S. Fish and Wildlife Service (USFWS).

The combination fixed-wing and ground count of sandhill crane in September was completed in 2009. A total of 6,934 cranes were counted in Idaho. Sandhill crane hunting was no longer a controlled hunt in 2009. Tags were available on a first-come first-served basis. The hunts were held in September in five areas and an estimated 254 cranes were harvested.

Tundra swans, American coots, and Wilson's snipe received little management emphasis; these species benefit from statewide programs aimed at other species. Department management area descriptions: duck, goose, and sandhill crane hunting season structures, and bag and possession limits for the previous season are provided in Appendix A.

**STUDY OBJECTIVES**

1. Determine production and trends of resident waterfowl.
2. Determine movements, distribution, and survival rates of resident waterfowl.

## **PROCEDURES**

1. Conduct Canada goose breeding pair aerial surveys and nest searches for specific survey areas and implement a triggering mechanism for determining when to reduce the goose harvest.
2. Band locally-produced waterfowl and monitor movements and survival rates.
3. Trap Canada goose goslings and transplant them into areas where new flocks may be started or to supplement existing low populations.

## **DUCKS (ALL SPECIES)**

### **Regional Reports**

#### **Panhandle Region**

Population Surveys: Approximately 1,000 wood duck nest boxes located in the Panhandle were available for nesting in 2009. A total of 314 boxes were evaluated. Cavity-nesting ducks (wood ducks, common goldeneye, bufflehead, and hooded mergansers) utilized 173 (55%) of the boxes evaluated.

Breeding pair/brood duck production surveys were conducted on the Boundary Creek, McArthur Lake, and Pend Oreille WMAs in 2009. Two breeding pair surveys were conducted in May, followed by brood counts conducted in June (once), July (once), and August (once). A total of 304 breeding duck pairs produced 77 observed broods (25% success) and 410 ducklings (5.3 ducklings per brood). While a wide variety of duck species were recorded during the pair counts, many of these species leave prior to breeding and consequently artificially lower the referenced success rates. The dominant breeding duck species in the Panhandle are mallards, wood ducks, and to a lesser extent, blue-winged and green-winged teal.

Trapping and Transplanting: A total of 1,263 ducks were trapped and banded by Department personnel in the Panhandle Region during summer 2009 (Tables 7 and 8). Mallards comprised 79% of the sample. Banding occurred at the Coeur d'Alene River, Pend Oreille, McArthur Lake, and Boundary Creek WMAs. No transplanting projects were conducted.

Management Studies: Since 1991, a total of 19,133 ducks have been banded during the breeding season at the Boundary Creek, McArthur Lake, Pend Oreille, and Coeur d'Alene River WMAs.

Panhandle staff assisted with a statewide avian influenza sampling effort. Oral and cloacal swabs were collected from hunter-harvested (2008) and trapped (2009) ducks as part of a coordinated statewide sampling effort during the reporting period.

Management Implications: The installation of nest boxes in appropriate wetland habitat throughout the Panhandle Region has significantly increased production of cavity-nesting ducks.

Although wood ducks are the target species for this effort; common goldeneye and hooded mergansers also frequently use these boxes. Through HIP, many of these nest boxes are now placed on private lands and contribute to the overall improvement in duck production throughout the region.

### **Clearwater Region**

Population Surveys: The number of ducks present in the Clearwater Region is so small that little active management is possible. No population surveys for ducks are conducted within the region.

There is a small breeding population of wood ducks in the Clearwater Region. From 1988-1998, in an attempt to enhance this species' presence, nest boxes were erected through the Department's HIP program. A landowner survey of wood duck use of nest boxes was discontinued in 2005 due to poor return rates on data cards. Many of these structures are no longer usable. Since 2001, the U.S. Army Corps of Engineers has installed over 30 wood duck nest boxes along the lower Snake and Clearwater River levee ponds and sloughs. A resident population resides in the valley and disperses out from this source.

Trapping and Transplanting: Thirty-four ducks were banded at Mann Lake in the Clearwater Region during this reporting period (Tables 7 and 8).

Management Implications: The development of ponds and shallow water areas through the HIP program has improved local duck nesting in the region; however, no surveys are conducted to monitor duck production. Future production surveys may be worthwhile at trapping sites if numbers increase.

### **Southwest (Nampa) Region**

Population Surveys: No surveys for estimating duck nesting success and production were conducted on WMAs during the reporting period.

Trapping and Transplanting: Forty-three ducks were banded in the Southwest (Nampa) Region during this reporting period (Tables 7 and 8).

Disease Testing: Southwest staff assisted with a statewide avian influenza sampling effort. Oral and cloacal swabs were collected from hunter-harvested (2008) and trapped (2009) ducks as part of a coordinated statewide sampling effort during the reporting period.

Habitat Conditions: Precipitation in the Southwest Region was average during winter, but above average during spring and early summer (June was one of the wettest ever recorded). Because no regional wetland surveys are conducted, the exact extent of wetlands is unknown. The waterfowl production from these wetlands is also unknown.

Management Implications: As the Department implements HIP statewide, it is anticipated that the number of acres of wetland will increase, and contribute to the goal of increasing Idaho's resident and wintering duck populations.

Prescribed fire and herbicide are being used on WMAs to open up dense stands of vegetation. Opening these stands will make them more attractive and productive to waterfowl broods.

### **Southwest (McCall) Region**

Population Surveys: No population surveys are conducted for ducks in the McCall sub-region. Ducks are numerous and mostly associated with the Cascade Reservoir ecosystem.

Various local groups, such as the Boy Scouts and Reservoir Association, erect wood duck nest boxes. No effort was made to monitor the number of boxes installed by these private organizations. Maintenance of these boxes is encouraged annually.

Trapping and Transplanting: No ducks were banded by the Southwest (McCall) Region during this reporting period.

Management Implications: The HIP program and other programs will be utilized to enhance duck nest production. Priority will be placed on projects that stabilize water levels and enhance nest production on Cascade Reservoir.

### **Magic Valley Region**

Population Surveys: No population surveys for ducks were conducted in the Magic Valley Region during the reporting period.

Habitat Conditions: Precipitation during the 2008-2009 winter and spring was approximately average in all major watersheds in the Magic Valley Region. Snake River flows, as usual, were low during nesting season.

Trapping and Transplanting: Thirty-four mallards were banded in the Magic Valley Region during this reporting period (Tables 7 and 8).

Management Implications: Although ducks are produced annually on the Hagerman, Niagara, Billingsley Creek, Centennial Marsh, and Carey Lake WMAs, much of the region's duck production occurs in cultivated areas along canals and near small reservoirs and stock ponds. In general, wetland habitats are limited in the region and have been adversely affected by successive drought years. At WMAs, where duck production is a priority, breeding pair and brood surveys are currently not conducted.

### **Southeast Region**

Population Surveys: Duck nest success and brood surveys have been conducted on the Sterling WMA periodically since the mid-1990s; however, none were completed in 2009.

Twenty-four wood duck nest boxes are located in the region. No boxes were checked during this report period.

Predator Management: Graduate student research from 1993-1995 indicated high magpie populations on the Sterling WMA in association with dense Russian olive stands. Russian olive stands were removed in the late 1990s in an attempt to reduce predation and increase waterfowl nest success. Subsequent field observations suggested that mammalian predators began to replace magpies following tree removal. Mammalian predator removal efforts were initiated in 1997 and continued through 2009. Other predator management efforts included removal of potential den sites (e.g., culverts, brush, and junk piles).

Trapping and Transplanting: No ducks were banded in the Southeast Region during this reporting period.

Waterfowl die-offs: We had two different botulism outbreaks in the region during the last reporting period. In late-August, there was a small outbreak in the Shelley City sewer lagoon in late-August. The aerators had broken down and caused the botulism-positive conditions to exist. About 250 waterfowl were picked up at the facility. The die-off only lasted three to four days.

During September, approximately 20,000 waterfowl and water birds were picked up on the American Falls Reservoir as a result of an avian botulism outbreak. Conditions, including higher than normal water levels and higher than normal September temperatures, led to the outbreak. We had cooperation from the ShoBan tribes, the USFWS and the Bingham County Sheriff's office in the clean up. It is unknown how many more waterfowl died but were not picked up; however, estimates are 3,000 – 5,000 in addition to what was retrieved and disposed of in landfills. This was a huge effort with more than 100 hundred man-days of effort in the cleanup.

## **Upper Snake Region**

Population Surveys: No population surveys were conducted during this reporting period.

Climatic Conditions: Winter 2008-2009 received average levels of precipitation according to historical averages. Spring 2009 was rainy and cool until the end of June with water levels on regional waterways higher than previous years.

Habitat Conditions: Most ducks in the region are produced on the Market Lake and Mud Lake WMAs and the Camas National Wildlife Refuge. Duck production on all of these areas is influenced by water levels. Abnormally wet or dry years can reduce production. Numerous other areas of duck habitat, ranging from small beaver ponds and potholes to riparian communities along the Snake River occur throughout the region. Some areas are severely impacted by livestock grazing while other areas are impacted by irrigation withdrawal, invasive noxious weeds, or housing development. The region is working with private landowners, local weed control areas, the Bureau of Land Management (BLM), U.S. Forest Service, Natural Resource Conservation Service, and other non-government groups to improve the quality of nesting and brood-rearing habitat through HIP.

The best wood duck habitat in the region is on the North Fork Snake River below St. Anthony, the South Fork Snake River below Burns Creek, and the Snake River above Roberts. These areas have excellent cottonwood riparian communities and numerous slow-flowing and backwater sloughs. Except for the Cartier Slough WMA, the Deer Parks WMA, and the Warm Slough Access Area, the land ownership is a mix of private and BLM lands. The Market Lake, Mud Lake, and Sand Creek WMAs have limited wood duck nesting habitat around the edges of marshes and ponds.

Habitat Improvements: On the Market Lake WMA, 220 acres were farmed during 2009. A variety of crops were planted and left standing for waterfowl and upland game use.

On the Mud Lake WMA, approximately 250 acres were planted to food plots for waterfowl and upland game during 2009. On the Chester Wetlands and Sand Creek WMAs, 59 acres of food plots were planted.

Trapping and Transplanting: One thousand seventy-nine ducks were banded at the Mud Lake WMA during 2009 (Tables 7 and 8).

Disease Testing: Upper Snake staff assisted with a statewide avian influenza sampling effort. Oral and cloacal swabs were collected from hunter-harvested (2008) and trapped (2009) ducks as part of a coordinated statewide sampling effort during the reporting period.

Waterfowl Die-offs: No major waterfowl die-offs occurred in Upper Snake Region during this reporting period.

Depredation: No depredation complaints were received during this reporting period. As part of an ongoing program to prevent depredation to grain fields south of Idaho Falls, Canada goose nests located on islands in Gem Lake were oiled with corn oil under a permit from the USFWS using license dollars.

Predator Control: The Department did not conduct predator removal for waterfowl during 2009; however, hunters and trappers remove some predators during normal furbearer seasons.

Management Implications: Management direction in the 1991-1995 WMP is to maintain at least 30% duck nesting success on important duck-producing WMAs and increase duck production by improving nesting habitat on WMAs and through HIP. Production surveys are to be used on WMAs where duck production is a priority to monitor production and measures taken to increase production where it is low. Nest success has not been monitored since the early 1990s.

The region has some excellent wood duck habitat along the Snake River but has lacked nesting boxes. Adopt-A-Wetland groups and habitat biologists have placed some nesting boxes along the Snake River. Incidental observations suggest a wood duck nesting population has established along the Snake River.

## **Salmon Region**

Population Surveys: No population surveys are conducted for ducks in the Salmon Region.

Trapping and Transplanting: No ducks were banded in the Salmon Region during this reporting period.

## **GEESE (ALL SPECIES)**

### **Regional Reports**

#### **Panhandle Region**

Population Surveys: Canada goose nest surveys were conducted on the Boundary Creek, McArthur Lake, Pend Oreille, and Coeur d'Alene River WMAs in 2009 (Figure 2). A total of 285 nests were located.

Historically, McArthur Lake WMA produced the greatest number of geese in the Panhandle Region, peaking at 117 nests in 1982. By 1987, this number had declined to 55 nests, attributable primarily to raven depredation. Predator control efforts were implemented and helped to stabilize production. During dam reconstruction, the reservoir was drained from September 1994 to March 1995. The number of goose nests declined to 24 and remained low thereafter. In 2009, 47 nests were observed (Tables 9 and 10).

The Coeur d'Alene River WMA supported >10 nesting pairs of geese in 1979. Following a decade-long gosling transplant program, the population increased dramatically. The population was further bolstered by the addition of ~150 goose nesting platforms. Nesting pair numbers increased to ~100 pairs during the 1990s. A decline is evident in recent years. A total of 49 nests were located in 2005 after which significant effort was directed towards nest platform maintenance. A total of 76 nests were observed in 2009 (Tables 9 and 10).

The Pend Oreille WMA consists of scattered parcels along Pend Oreille Lake and the Pend Oreille River. The number of nesting geese located on the Pend Oreille has remained high in recent years. A total of 152 goose nests were located in 2009.

Ten Canada goose nests were located on the Boundary Creek WMA during 2009. However, additional production was evident. Two gang broods totaling ~50 goslings fledged from the site. Production on the area is expected to increase as nesting patterns are established and more nesting structures are installed.

Trapping and Transplanting: Seventy-eight Canada geese were trapped and banded in 2009 incidental to duck banding. No Canada geese were transplanted in the Panhandle Region during the reporting period.

Management Implications: Canada goose nesting initially increased in the Panhandle Region in response to the placement of man-made nest structures and a gosling transplant program.

Production declined in the early 2000s, presumably in response to a lack of platform maintenance. An increased emphasis was placed on maintaining existing nest structures beginning in 2005, and the number of nesting geese initially increased. Numbers of nesting geese are currently considered to be static.

HIP has significantly increased the number of nest structures erected on private property since 1988. There are more structures on private land than there are on Department property.

From 1973 through 1996, Canada geese goslings were banded each summer at McArthur Lake WMA, as well as all goslings transplanted to the Coeur d'Alene River WMA. This program was terminated in 1997. The region's banding efforts are now concentrated on ducks.

Slightly over half (55%) of the band returns from hunter-harvested geese came from the five-county area of the Panhandle Region. Locally-produced geese winter primarily in eastern Washington and the Tri-cities area along the Columbia River, besides Pend Oreille and Coeur d'Alene Lakes in the Panhandle Region. The mean (unadjusted for non-reporting bias) direct recovery rate for Canada geese banded in the Panhandle Region for 23 years was 11.2%.

### **Clearwater Region**

Population Surveys: An established flock of PP Canada geese nest in the Clearwater Region. These birds nest along the lower 22 miles of the Clearwater River, primarily from Lewiston upstream to Peck. The 2009 breeding pair survey of this area resulted in a count of 52 indicated pairs and a total of 108 Canada geese (Tables 9 and 10). Numbers of active nests in this area were counted consistently from 1981 through 2006. Nesting success had been enhanced in this area with man-made nest structures placed on islands in the 1980s and early 1990s. Consistent data collection of goose nest structure use in the Clearwater Region began in 1988. The number of structures peaked at 80 in the early 1990s. Issues related to a burgeoning population in the late 1990s resulted in a change in management direction. The total number of structures slowly declined as those found unserviceable were removed. The last structures were removed after the 2006 nesting season. Management direction will encourage natural ground nesting on the islands. Annual summer goose counts conducted in the Lewiston/Clarkston valley indicate a stable local goose population.

Additional areas were surveyed for nests beginning in 1992. These included farm ponds in the region where nesting structures were issued to landowners, and Mann Lake, Middle Fork Clearwater River, Palouse River, Potlatch River, and Red River. These surveys have been discontinued, as they applied to nest structure use only. Poor return rates on data cards were another factor in discontinuing this survey. Most of these structures are no longer being maintained for geese.

Depredation: The number of goose complaints remained low over the reporting period. The increased hunting pressure and harvest in and around past depredation complaint areas has effectively reduced calls concerning crop damage. No complaints of crop damage were taken involving Canada geese. The lack of complaints reported around the Mann Lake area are likely a result of the Department's reduction in the size of the waterfowl hunting closure in 2001.

Trapping and Transplanting: No Canada geese were trapped or transplanted in the Clearwater Region during the reporting period.

Management Studies: Problems associated with large numbers of geese at local parks, golf courses, and the Lewiston airport have subsided somewhat due to favorable habitat conditions and dispersal of birds. No trapping operations were conducted this year.

To address concerns about Canada geese in the urban environment of the Lewiston-Clarkston valley, interested parties continue to work together to apply management options available to control local goose numbers. Deterrent measures such as hazing and vegetation manipulation have been conducted by private businesses, state, and federal agencies in the area.

In 2004, the U.S. Army Corps of Engineers (USACE) applied for a limited permit from the USFWS to take waterfowl using egg addling in specified areas on the Washington levee system and associated parks, and on one island shared by both Washington and Idaho. These sites were determined to have heavy nesting concentrations within city limits. Much of the local goose problem is tied to these areas. The USACE now annually treats between 30 to 60 nests in the specified areas. Nest searches in April 2009 resulted in approximately 40 nests being treated (approximately 260 eggs). The program is reportedly reducing the level of complaints and human health issues related to the local goose population significantly.

Management Implications: Beginning in 2007, the region changed the method of monitoring Canada geese on the lower Clearwater River (Survey Area 5) from structure and ground nest search to a pair and total goose count. Survey Area six was dropped as it tracked only the use of nest structures issued to landowners throughout the region. These structures are no longer being maintained for goose nesting. The adjusted management objectives for Survey Area five are a minimum of 40 breeding pairs (Tables 9 and 10).

## **Southwest (Nampa) Region**

Population Surveys: The breeding pair survey for geese was flown in April 2009. The survey area includes the Snake River from Guffy Bridge to Farewell Bend, and the Payette River from the mouth to Emmett. The three-year average (692) is below the minimum goal of 900 breeding pairs for the fifth consecutive year. A total of 1,584 Canada geese and 664 breeding pairs were seen (Tables 9 and 10) in addition to large flocks of white-fronted geese (14,154 birds), snow geese (13,395), and sandhill cranes (1,100). Additionally, the lower Boise River was surveyed from Eagle to the confluence with the Snake River and 117 pairs and 290 total geese were counted.

An urban Canada goose survey was conducted in Boise in 2009 to document prevalence and distribution of urban goose numbers in the Boise area. It was hoped urban goose counts could be correlated with the annual spring pair counts on the Snake and Payette Rivers, which have declined in recent years. Geese were counted in all parks and golf courses in three areas near Boise. Numbers appear stable between years, but we will continue to monitor urban goose

populations and compare with other regional goose surveys. A total of 875 geese were counted in May 2009.

Climatic Conditions: Precipitation in the Southwest (Nampa) Region was average during winter 2008-2009, but was one of the wettest springs on record. Good habitat conditions were prevalent throughout the region during the summer.

Trapping and Transplanting: During summer 2009, 98 geese were banded at the Blue Cross of Idaho complex, but no local geese (goslings or adults) were moved out of the urban area of Boise.

Management Implications: Each year, 2-3 aerial goose surveys are conducted along each route and the highest count is used for the survey. The current three-year average of Canada goose breeding pairs along the Payette and Snake Rivers (693) is below the minimum pair objective (900) identified in the 1991-1995 WMP (Connelly and Wackenhut 1990; Figure 2) for the fifth consecutive year. The Southwest Region will continue to closely monitor populations, seasons, harvest, and limits to determine if the situation warrants concern.

### **Southwest (McCall) Region**

Population Surveys: Dangerous water levels due to fluctuating water management precluded conducting population surveys in a timely manner on the Snake River reservoirs (Brownlee, Oxbow, and Hells Canyon) during the reporting period. A population survey was conducted on Lake Cascade. A total of 85 geese were observed and 44 indicated pairs noted. Population data on this body of water have not been collected in recent years and a three-year average of monitoring criteria could not be established.

Nesting survey and nest structure use data were not collected during the reporting period. Distribution of existing goose nest structures is coordinated region-wide through HIP.

Trapping and Transplanting: No Canada geese were trapped or transplanted in the Southwest (McCall) Region in 2009.

Management Implications: The 1991-1995 WMP directs the Department to reduce the harvest when the three-year average falls below minimum objectives. The minimum objective for Lake Cascade is 225 geese observed and 100 indicated pairs. These monitoring criteria were developed for the plan without baseline data. Management objectives for these areas should be refined, using available data, before recommendations are made to reduce harvest. These refined objectives should be incorporated into any updates to the 1991-1995 WMP. Population survey data collection will be continued according to guidelines in the 1991-1995 WMP.

### **Magic Valley Region**

Population Surveys: In 2009, none of the four survey areas in the Magic Valley Region (Figure 2) met either the minimum breeding pair or total geese objectives as outlined in the 1991-1995 WMP (Tables 9 and 10).

Use of man-made nest structures by Canada geese is monitored during the annual breeding pair survey. During the April 2009 survey, geese were observed to be using 67% (98/147) of the structures on the Camas Prairie. Use of man-made structures was not recorded for the Snake River survey in 2009.

Habitat Conditions: Precipitation during the 2008-2009 winter and spring was approximately average in all major watersheds in the Magic Valley Region. Snake River flows, as usual, were low during nesting season.

Depredation: No goose depredation complaints were received in the region during this reporting period.

Trapping and Transplanting: No Canada geese were trapped or transplanted in the Magic Valley Region in 2009.

Management Implications: In recent years, none of the survey areas in the region have met both minimum breeding pair and total geese criteria. Increased bag limits (from 2/day to 4/day), poor nesting conditions, and reduced availability of artificial nesting structures are all factors that may have contributed to decline in observed spring goose numbers. Many of the nesting structures in the region were constructed in the late 1970s and are no longer functional or are located in areas that are no longer suitable. Current budget constraints and personnel shortages will negatively affect maintenance and monitoring of goose nest structures in the region except on WMAs.

## **Southeast Region**

Population Surveys: Aerial spring pair surveys of Rocky Mountain Population (RMP) Canada geese showed a 2% decrease from 2008 to 2009 in the number of indicated pairs counted (Tables 3 and 4). Numbers of both pairs and total geese were similar to 2008 and remained higher than the 2005-2007 averages. Current three-year averages for breeding pair counts and total geese are generally below management objectives (Tables 9 and 10).

Trapping and Transplanting: No Canada geese were trapped or transplanted in the Southeast Region in 2009.

Management Implications: Goose populations, as measured by breeding pair counts and total counts, are generally below the 1991-1995 WMP objectives (Connelly and Wackenhut 1990; Table 3). No formal depredation complaints were filed with the Department during this reporting period; however, Wildlife Services personnel normally deal with waterfowl depredations.

Waterfowl die-offs: We had two different botulism outbreaks in the region during the last reporting period. In late-August, there was a small outbreak in the Shelley City sewer lagoon in late-August. The aerators had broken down and caused the botulism-positive conditions to exist. About 250 waterfowl were picked up at the facility. The die-off only lasted three to four days.

During September, approximately 20,000 waterfowl and water birds were picked up on the American Falls Reservoir as a result of an avian botulism outbreak. Conditions, including higher than normal water levels and higher than normal September temperatures, led to the outbreak. We had cooperation from the ShoBan tribes, the USFWS and the Bingham County Sheriff's office in the clean up. It is unknown how many more waterfowl died but were not picked up; however, estimates are 3,000 – 5,000 in addition to what was retrieved and disposed of in landfills. This was a huge effort with more than 100 hundred man-days of effort in the cleanup.

## **Upper Snake Region**

Population Surveys: Two surveys (counts of indicated pairs and total geese) are conducted annually on RMP Canada geese to estimate breeding population trends (Tables 9 and 10). Indicated pairs are below management plan objectives for Market Lake WMA, Mud Lake WMA, Camas NWR, the Teton Basin, Island Park Reservoir area, and the North Fork Snake River. Low indicated pairs may be the result of drought conditions over the past several years. Residential development is impacting goose production in the Teton Basin.

Climatic Conditions: Winter 2008-2009 received average levels of precipitation according to historical averages. Spring 2009 received above average levels of precipitation and remained cool into late June.

Habitat Conditions: Most goose nesting on Department WMAs occurs on nesting structures. Nesting on the South Fork Snake River occurs on islands, while nesting at Camas NWR, in the Teton Basin, the North Fork Snake River, and Island Park Reservoir occurs primarily on the ground.

Habitat on the South Fork Snake River and lower Henrys Fork Snake River is being impacted by the invasion of noxious weeds. The Department is a cooperating partner with local weed control districts to address this problem.

Habitat in the Teton Basin is being lost to summer home development. The Department's HIP program has the potential to reduce this loss if landowner cooperation can be obtained.

Goose production along the South Fork is dependent upon water releases from Palisades Reservoir. The U.S. Bureau of Reclamation and the Department jointly researched river flows for optimal goose production during the early to mid-1970s. This study indicated that flows between 8,000 and 16,000 cfs during nesting season were optimal for goose production. However, releases are scheduled to meet irrigation water rights and fisheries needs, which reduce goose production due to nest flooding most years.

Depredation: Canada goose nests located on islands in Gem Lake were oiled with corn oil under a permit from the USFWS using license dollars. This effort has helped reduce goose depredations on grain fields near Gem Lake south of Idaho Falls.

Trapping and Transplanting: No trapping or transplanting occurred during this reporting period.

Waterfowl Die-offs: No major die offs were reported in the region during this reporting period.

Habitat Improvements: On Market Lake WMA, 15 goose platforms were maintained for use in 2009. At Chester Wetlands, 30 goose boxes were maintained for nesting, and 25 artificial nest structures were maintained on Sand Creek WMA. On Mud Lake WMA, 107 goose platforms were maintained.

Management Implications: Goose pair counts were conducted on seven production areas in 2009 (Figure 2). Of the seven areas monitored for indicated breeding pairs, all areas were below 1991-1995 WMP objectives (Tables 9 and 10). Those that were below objective include Market Lake WMA, Mud Lake WMA, Camas NWR, Teton Basin, Island Park Reservoir area, and the North Fork Snake River above Ashton.

Canada goose production can be increased in the region by erecting additional nest structures on the South Fork Snake River, Island Park Reservoir, and Teton River. Annual maintenance of structures on the South Fork was discontinued a few years ago and most have fallen into disrepair. Habitat biologists are also no longer servicing platforms on Island Park Reservoir because of conflicts with reservoir recreationalists. Annual maintenance of structures on other non-WMA areas of the region is not being done as needed for goose nesting.

Geese produced around Gem Lake cause annual depredations on malt barley. Goose platforms were erected around Gem Lake as mitigation for the Idaho Falls hydropower project; however, no brood habitat was included in the mitigation plan. These geese are basically urban geese and difficult to harvest and control numbers. This year, the Department obtained permission from the USFWS to oil nests in Bonneville County. This appeared to decrease the level of depredation to an acceptable level. This work was accomplished utilizing license dollars under the Department's depredation prevention program.

## **Salmon Region**

Population Surveys: The Salmon River (U.S. Highway 93 bridge at Challis to North Fork; Figure 2) was surveyed from the ground for indicated breeding pairs and total geese on April 28, 2009 to estimate breeding population trends of RMP Canada geese. A total of five active nests, 257 indicated pairs, and 788 total geese were counted (Tables 9 and 10). The Salmon River was not surveyed in 2005.

Trapping and Transplanting: No Canada geese were trapped or transplanted in the Salmon Region during this reporting period.

## **SANDHILL CRANE**

The Department's goals and objectives for the sandhill crane are the same as those for the Pacific Flyway (Subcommittee on Rocky Mountain Greater Sandhill Cranes 1997).

## **Current Goals**

1. Maintain current sandhill crane breeding populations and their distribution.
2. Maintain current sandhill crane migrations through Idaho.
3. Meet the demand for non-consumptive uses.

The RMP sandhill crane population continued to receive increased management emphasis during the reporting period in the Magic Valley, Southeast, and Upper Snake regions because of continuing landowner concerns over crop damage. Surveys of RMP greater sandhill cranes in these three regions were initiated in 1995 to document total sandhill crane numbers, arrival dates, distribution, and age ratios.

Background and Management Philosophy: RMP greater sandhill cranes have caused crop damage in eastern Idaho for decades. In 1996, the Commission adopted rules that changed the classification of sandhill cranes from migratory nongame birds to migratory game birds and directed the Department to obtain Pacific Flyway Council and USFWS approval for an experimental controlled hunt in three areas. See the 2007 Waterfowl Annual Reports (Study II, Jobs 2 & 3) for a thorough history of the sandhill crane management areas in Idaho.

In 2009, the Commission authorized sandhill crane seasons that were no longer administered through controlled hunts. Tags were available on a first-come first-served basis. This decision was made because the harvest allocation for Idaho had increased in recent years, but the number of birds harvested had remained relatively steady. The limit remained two cranes per day per hunter with a season limit of nine cranes. The description, season framework, and bag and possession limits can be found in Appendix A.

## **Regional Reports**

### **Southwest (McCall) Region**

Breeding pairs of sandhill cranes occur in the Lake Cascade, North Fork Payette River, and Little Salmon River drainages. No management data are collected on these birds.

### **Magic Valley Region**

Population Surveys: Ground surveys were conducted on 15 September 2009 in the Silver Creek Valley, Camas Prairie, and around Carey Lake. One hundred three cranes were observed on the Camas Prairie, while 381 cranes were observed in the Silver Creek area, for a total of 484 cranes observed (Table 11).

## **Southeast Region**

Population Surveys: Greater sandhill cranes nest in several areas in the Southeast Region. Large concentrations of cranes are present in several areas in the eastern part of the region prior to migration in the fall.

Department personnel in 1995-1997 began collecting data at Chesterfield, Blackfoot Reservoir, and Grays Lake to provide information on sandhill crane abundance, juvenile recruitment rates in fall pre-migration flocks, arrival dates of sub-adults and family groups into pre-migration areas, and whooping crane use periods. These same data were collected for the Bear River Valley between Soda Springs and Montpelier beginning in 1996 (Table 11). Beginning in 1996, USFWS personnel collected the sandhill crane information at Grays Lake NWR for the Department. Personnel for the USFWS and a private contractor normally collected aerial survey information to determine total sandhill crane abundance during September in selected areas of the Southeast Region.

Harvest Characteristics: Harvest allocation and permit numbers increased from 300 in 2008 to 400 in 2009. An estimated 170 people hunted cranes, harvested 150 birds, 126 (84%) of which were adults (Tables 12 and 13). Hunters have not been required to comply with a mandatory check requirement since 1998.

Management Implications: Concerns expressed by grain producers during the mid-1990s prompted the Department to collect baseline information that could be used to identify strategies to reduce depredation. Chesterfield Reservoir, Blackfoot Reservoir, Bear River Valley, and Grays Lake were identified as primary sites due to a history of depredation concerns. However, sandhill cranes stage and use grain fields throughout the region including Marsh Valley, Malad Valley, Swan Lake/Oxford Slough area, Bear Lake Valley, American Falls Reservoir, and Thomas Fork Valley. Future ground surveys may need to be conducted in some or all of these areas.

## **Upper Snake Region**

Population Surveys: Personnel for the USFWS and a private contractor collect aerial survey information to determine total sandhill crane abundance during September in selected areas of the Upper Snake Region (Table 11).

Harvest Characteristics: A mail-in survey with a follow-up telephone survey of non-respondents was used to estimate hunter participation and harvest of sandhill crane for each hunt (Table 12). In 2009, individual hunt periods were combined into one time period. One hunt with 100 tags was available for the Fremont County area and one hunt with 100 tags was available for the Teton County area. One hunt with 40 permits was available in Bonneville County and one hunt with 40 permits was available in Jefferson County. An estimated 156 people hunted cranes, harvested 154 birds, 68 (44%) of which were adults (Tables 12 and 13).

Climatic Conditions: Winter 2008-2009 received average levels of precipitation according to historical averages. Spring 2009 received above average levels of precipitation and remained cool into late June.

Depredation: The region received no sandhill depredation complaints during 2009.

Management Implications: Fall pre-migration staging area sandhill crane composition surveys were conducted in the Upper Snake Region for the first time in 1995. These baseline data were used to help identify strategies to reduce depredation concerns on pre-migration staging areas in the Fremont County area and the Teton County area.

## **Salmon Region**

Sandhill cranes occur as scattered breeding pairs in the Lemhi, Pahsimeroi, and Salmon River valleys from Salmon to Stanley. No management data are collected on these birds.

## **TRUMPETER SWAN**

The trumpeter swan is included in the 1991-1995 Nongame Species Plan; the Department's goals and objectives are the same as those of the Pacific Flyway. The 1991-1995 WMP contains no goals for this species. Data for trumpeter swans are included in this report for the historical record.

## **Regional Reports**

### **Magic Valley Region**

In 1994, 1995, and 1996, a pair of trumpeter swans successfully nested at White Arrow Ponds north of Bliss in Gooding County. Since then, the trumpeter swans have made no attempt to nest at that site or attempts were brief and unsuccessful.

Successful nesting by trumpeter swans was also documented in 1995 and 1996 at the Department's Highway 46 Pond in Camas County. In 2002, a pair of trumpeter swans successfully nested and reared three juveniles on a private pond approximately six miles southeast of the Department's Highway 46 Pond.

During August 2006, Department staff found a pair of adult trumpeter swans with three cygnets on Spring Creek Reservoir in Camas County. No nesting trumpeters were documented in the region during 2007; however, a pair of adults was observed at Thorn Creek Reservoir by Department personnel on 23 August 2007. No nesting trumpeters were documented in the region during 2008 or 2009.

### **Southeast Region**

Aerial and ground surveys were conducted in the Southeast Region to monitor nesting trumpeter swans and wetlands. During 2009, there were 12 occupied nesting territories and 11 nesting pairs. Fourteen cygnets fledged.

## **Upper Snake Region**

Aerial and ground surveys were conducted in the Upper Snake Region to monitor nesting trumpeter swans and wetlands. During 2009, there were 14 occupied nesting territories and eight nesting pairs. Seven cygnets fledged.

### **TUNDRA SWAN**

The Department's 1991-1995 WMP goals for the tundra swan are the same as those of the Pacific Flyway (Connelly and Wackenhut 1990). However, during the reporting period, this species received little management emphasis in Idaho. This is because the tundra swan is not classified by the state as a game bird and the species benefits indirectly from other wildlife management programs.

Tundra swans migrate through the region in spring and fall, and some winter on the Snake River, the North Fork Snake River and the Teton River, but none are known to nest in the state. Counts are made incidental to other waterfowl during the mid-winter waterfowl count (Table 1) and the mid-winter tri-state trumpeter swan survey.

### **AMERICAN COOT**

The Department's 1991-1995 WMP goals for the American coot are to 1) maintain the Idaho population, 2) increase the harvest, and 3) provide maximum recreational opportunity (Connelly and Wackenhut 1990). However, during the reporting period, this species received little management emphasis. This is because the American coot is not a popular game bird in Idaho and because it benefits indirectly from other wildlife management programs.

### **WILSON'S SNIPE**

The Department's 1991-1995 WMP goals for the Wilson's snipe are to 1) maintain Idaho's Wilson's snipe population and 2) maintain the harvest (Connelly and Wackenhut 1990). However, during the reporting period, this species received little management attention. This is because the Wilson's snipe is not a popular game bird in Idaho and because it benefits indirectly from other wildlife management programs.

## LITERATURE CITED

Connelly, J., and P. Wackenhut. 1990. Waterfowl Management Plan, 1991-1995. Unpublished Report, Idaho Department of Fish and Game, Boise, Idaho, USA.

Subcommittee on Rocky Mountain Canada Geese. 2000. Pacific Flyway management plan for the Rocky Mountain Population of Canada Geese, Pacific Flyway Study Comm. [c/o USFWS] Portland, Oregon, USA. Unpubl. rept.

Subcommittee on Rocky Mountain Greater Sandhill Cranes. 2007. Management plan of the Pacific and Central Flyways for the Rocky Mountain population of greater sandhill cranes. [Joint] Subcommittees, Rocky Mountain Population Greater Sandhill Cranes, Pacific Flyway Study Committee, Central Flyway Webless Migratory Game Bird Tech. Committee [c/o USFWS, MBMO], Portland, Oregon, USA.

U.S. Fish and Wildlife Service. 2008. Waterfowl population status, 2008. U.S. Fish and Wildlife Service, Office of Migratory Bird Management, Laurel, Maryland, USA.

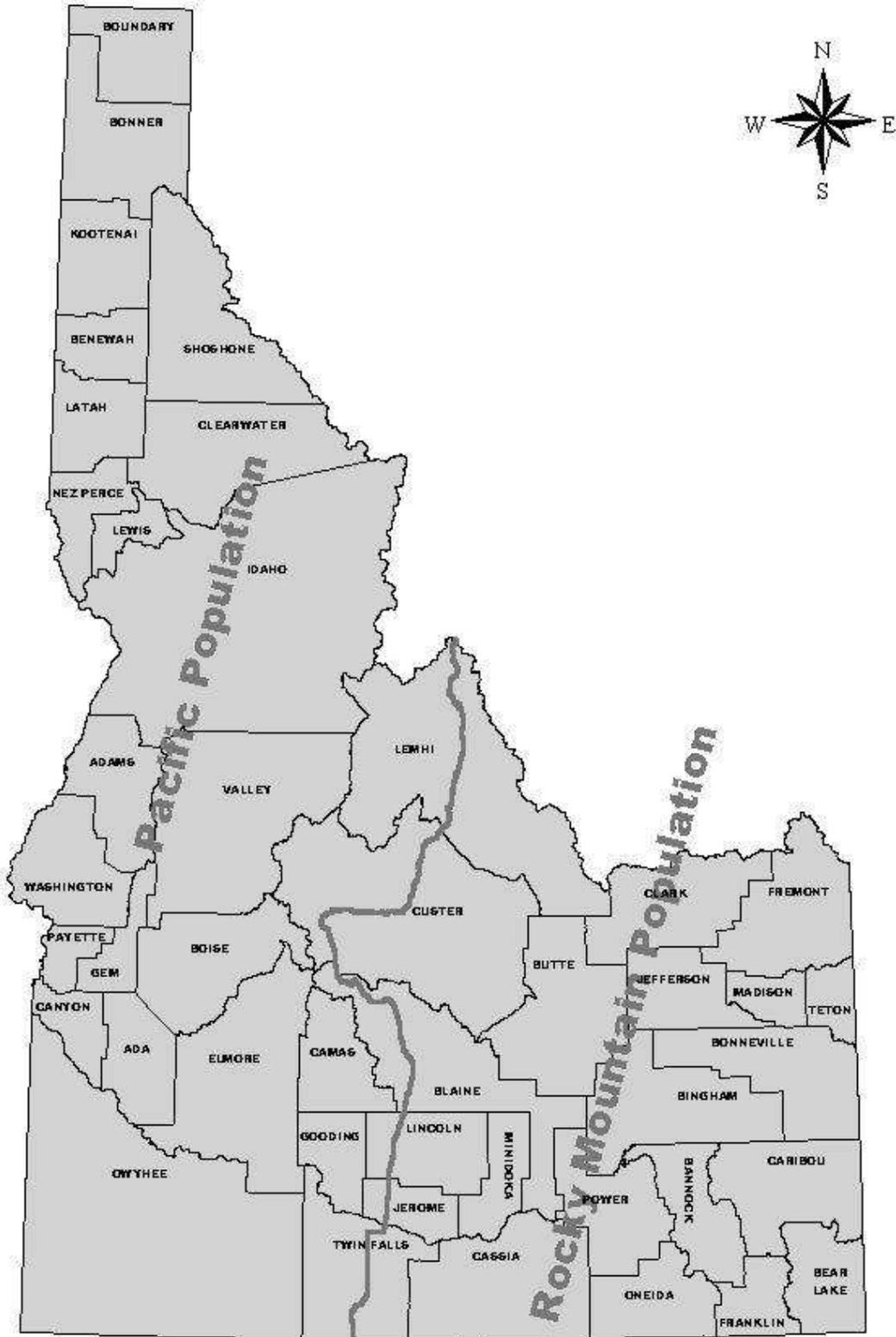


Figure 1. Distribution of Pacific and Rocky Mountain Canada geese populations within Idaho.

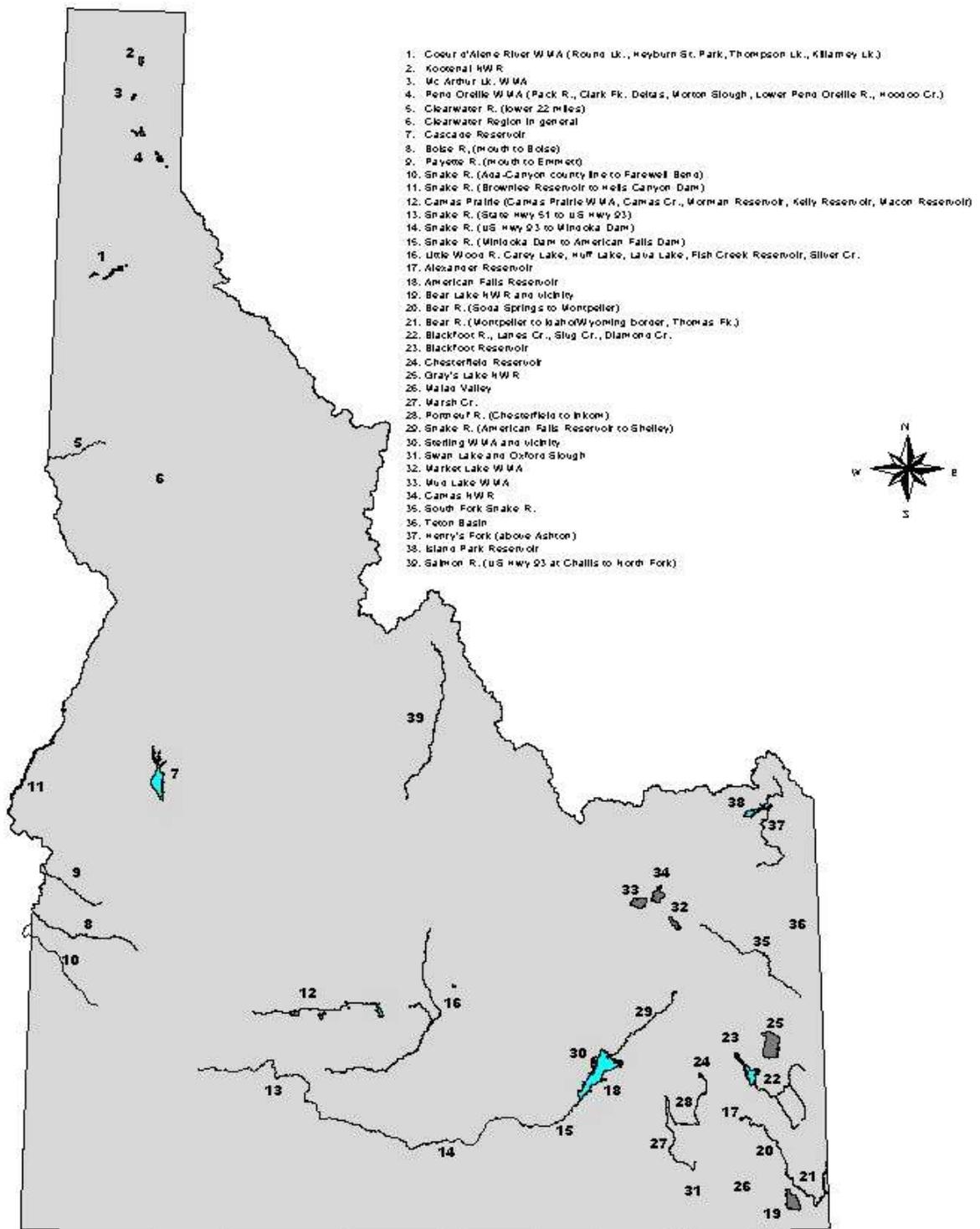


Figure 2. Idaho Canada goose nesting survey areas.

Table 1. Birds counted during the mid-winter waterfowl survey, 2000-2009.

Species	2000	2001 <sup>a</sup>	2002	2003 <sup>b</sup>	2004 <sup>c</sup>	2005 <sup>d</sup>	2006 <sup>e</sup>	2007	2008	2000-2009 10-yr. avg.	2009	% Change from	
												Previous year	10-yr. avg.
Mallard	261,425	106,516	168,844	108,034	185,898	164,425	103,467	207,741	142,700	173,372	196,801	38%	14%
Gadwall	1,058	45	261	602	430	599	894	552	296	492	37	-88%	-92%
Widgeon	4,164	1,189	1,412	6,900	3,470	9,665	5,067	3,416	4,139	4,311	2,184	-47%	-49%
Green-winged Teal	202	142	249	363	215	402	301	134	108	223	27	-75%	-88%
Blue-winged/ Cinnamon Teal	0	0	12	0		0	50	0	0	6	0	0%	-100%
Shoveler	88	1	17	25	80	183	7	44	49	77	140	186%	83%
Pintail	405	1,696	179	49	796	121	252	124	300	557	404	35%	-27%
Wood duck	290	38	503	55	233	213	336	580	411	294	372	-9%	27%
Redhead	17,643	12,750	35,993	21,324	22,260	22,463	15,909	13,111	21,266	20,631	14,610	-31%	-29%
Canvasback	165	0	333	20	168	57	312	1,029	441	285	12	-97%	-96%
Scaup	3,398	7,436	12,313	9,900	7,664	5,556	4,114	10,185	6,262	7,210	4,395	-30%	-39%
Ringneck	1,232	282	4,445	3,411	2,021	1,060	4,281	3,816	420	2,170	1,114	165%	-49%
Goldeneye	19,674	11,921	15,219	12,018	16,113	18,214	21,473	22,035	30,837	18,923	27,641	-10%	46%
Bufflehead	654	752	1,193	763	1,301	1,080	1,045	949	1,012	1,189	627	-38%	-47%
Ruddy duck	13	0	7	12	51	6	2	7	2	33	13	550%	-60%
Merganser	3,952	1,732	2,792	1,571	2,693	1,103	1,196	413	855	1,973	582	-32%	-70%
Unidentified ducks	752	324	835	225	3,161	260	14,922	17,831	12,353	6,433	11,066	-10%	72%
Total ducks	317,115	144,824	246,609	165,272	247,756	225,407	173,628	281,967	221,451	238,899	260,025	17%	9%
Snow goose	0	0	1	0	1	1	0	3	0	1	0	0%	-100%
Ross'	0	0	0	0	0	2	0	0	0	0	0	0%	-100%
Canada goose	37,961	39,474	29,374	43,489	43,336	53,506	39,078	44,912	44,570	44,208	37,292	-16%	-16%
Lesser Canada	0	0	0	0	0	0	0	0	0	0	0	0%	0%
Cackling goose	0	0	0	0	0	0	0	0	0	0	0	0%	0%
White-front	1	0	0	0	0	0	0	0	0	0	0	0%	-100%
Total geese	37,962	39,474	29,375	43,489	43,338	53,509	39,078	44,915	44,570	44,210	37,292	-16%	-16%
Tundra swan	220	174	205	178	177	384	243	615	352	266	4	-99%	-98%
Trumpeter swan	139	0	1,783	1,730	730	0	2,016	2,922	2,614	1,193	2,856	9%	139%
Unidentified swan <sup>f</sup>	1,940	201	5	150	754	454	333	0	178	549	453	154%	-17%
Coot	38,253	25,763	33,285	16,042	26,811	5,325	21,473	24,639	37,807	25,011	12,686	-66%	-49%
Total waterfowl	395,629	210,436	311,262	226,861	319,566	285,079	236,771	355,058	306,972	310,128	313,316	2%	1%

<sup>a</sup> About 1/3 of the state's winter habitat was not counted in 2001 because of a fatal aircraft crash and subsequent flying moratorium.

<sup>b</sup> About 15% of the state's winter habitat was not counted in 2003 because of inclement weather in Magic Valley Region.

<sup>c</sup> Based on four-year average 200-2003

<sup>d</sup> About 28% of the state's winter habitat was not counted in 2005 because of inclement weather in Upper Snake Region.

<sup>e</sup> About 10% of the state's winter habitat was not counted in 2006 because of inclement weather in Panhandle Region.

<sup>f</sup> Primarily trumpeter swans 1995-2000.

Table 2. Estimated statewide harvest of ducks obtained from the Department telephone survey, 1988-2008.

Year <sup>a</sup>	% license buyers sampled	Harvest	Average birds per hunter per year	Hunters	Days Hunted	Days hunted per hunter per year
1988	4.6	154,400 ± 21,700	9.1	17,000 ± 1,100	111,100 ± 9,300	6.5
1989	3.0	147,000 ± 24,300	8.9	16,500 ± 1,400	116,700 ± 11,500	7.1
1990	3.0	157,800 ± 22,600	9.6	16,400 ± 1,300	120,800 ± 9,800	7.4
1991	4.0	181,500 ± 25,400	10.5	17,300 ± 1,200	156,000 ± 13,000	9.0
1992	2.5	210,700 ± 36,300	11.7	18,000 ± 1,700	145,100 ± 14,300	8.1
1993 <sup>b,c</sup>	2.5 <sup>d</sup>	252,100 <sup>b</sup>	13.4	18,800 <sup>b</sup>	217,400 <sup>b</sup>	11.6
1994 <sup>b,c</sup>	5.3	300,300 ± 23,400	15.6	19,400 ± 4,000	243,900 ± 16,200	12.6
1995 <sup>c</sup>	3.9 <sup>d</sup>	416,300 ± 33,300	17.9±1.4 <sup>e</sup>	23,300 ± 4,000	309,400 ± 33,500	13.3 ± .7 <sup>e</sup>
2002	4.4 <sup>f</sup>	233,500	12.3	19,000	170,000	9.0
2003	4.0 <sup>g</sup>	320,200	14.4	22,200	200,700	9.0
2004	4.9 <sup>h</sup>	264,900	12.5	21,100	178,500	8.4
2005	5.3 <sup>i</sup>	322,100	16.2	19,900	184,000	9.2
2006	5.0 <sup>j</sup>	317,800	15.2	20,925	171,700	8.2
2007	4.4 <sup>k</sup>	406,300	19.6	20,758	203,845	9.8
2008	4.6 <sup>k</sup>	377,800	18.1	20,862	196,441	9.4

<sup>a</sup> No harvest estimates for 1996-2001 because the survey was not conducted.

<sup>b</sup> Confidence intervals not available.

<sup>c</sup> Survey was conducted by a private contractor using some procedures which differed from those used by the Department in preceding years. Consequently, estimates are not comparable to those for preceding years.

<sup>d</sup> Approximate.

<sup>e</sup> 95% confidence interval.

<sup>f</sup> 839 duck hunters were contacted or about 4.4% of the estimated 19,000 duck hunters.

<sup>g</sup> 887 duck hunters were contacted or about 4.0% of the estimated 22,200 duck hunters.

<sup>h</sup> 1,042 duck hunters were contacted or about 4.9% of the estimated 21,100 duck hunters.

<sup>i</sup> 1,050 duck hunters were contacted or about 5.3% of the estimated 19,900 duck hunters.

<sup>j</sup> 1,050 duck hunters were contacted or about 5.0% of the estimated 20,925 duck hunters.

<sup>k</sup> 918 duck hunters were contacted or about 4.4% of the estimated 20,758 duck hunters.

<sup>k</sup> 954 duck hunters were contacted or about 4.6% of the estimated 20,862 duck hunters.

Table 3. Estimated waterfowl harvest numbers from USFWS's waterfowl hunter survey for Idaho, 1988-2008.

Year	Duck stamps sold	Estimated adult hunters	Total geese harvested <sup>a</sup>	Total ducks harvested <sup>a</sup>
1988	16,597	14,271	26,600	112,900
1989	16,894	14,073	30,500	119,600
1990	17,036	13,443	36,800	96,700
1991	17,151	14,144	39,500	117,880
1992	17,717	14,132	31,700	126,700
1993	21,761	17,972	45,600	153,200
1994	21,229	17,418	61,100	141,300
1995	21,097	18,395	46,900	203,400
1996	22,382	19,751	61,100	245,800
1997	23,697	22,241	40,700	248,600
1998	23,515	21,006	56,700	254,700
1999	26,709	20,795	28,500	228,300
2000	28,206	23,306	86,200	173,200
2001	26,173	12,000/14,900 <sup>b</sup>	64,400	138,600
2002	24,937	14,500 / 9,900 <sup>b</sup>	36,700	160,600
2003	24,878	18,200/15,400 <sup>b</sup>	84,200	262,900
2004	24,320	17,100/13,300 <sup>b</sup>	62,700	188,500
2005	23,724	18,500/16,000 <sup>b</sup>	74,300	258,300
2006	25,726	18,400/14,500	77,800	278,000
2007	27,137	17,500/11,178	40,900	229,100
2008 <sup>c</sup>		20,000/13,700	64,500	257,600

<sup>a</sup> Adjusted for exaggeration memory bias and juvenile hunter density.

<sup>b</sup> The first number is estimated number of duck hunters and the second number is estimated number of goose hunters.

<sup>c</sup> Data is no longer available.

Table 4. Canada geese counted in Idaho during the midwinter waterfowl survey by survey area, 2000-2009.

Area <sup>a</sup>	2000	2001 <sup>b</sup>	2002	2003 <sup>b</sup>	2004 <sup>c</sup>	2005 <sup>b</sup>	2006 <sup>b</sup>	2007	2008	2009
Survey area #1	1,331	0	839	1,730	949	0	1,021	182	68	47
Survey area #2 & 4	0	0	0	0	0	0	0	0	0	219
Survey area #3	0	0	0	0	7		0	1,588	1,934	749
Survey area #5	5,720	18,172	9,233	15,662	15,619	15,709	16,617	15,300	8,324	84
Survey area #6	25	0	153		123	47	507	52	278	50
Survey area #7	604	0	2,273	493	1,565	666	2,983	3,724	2,822	1469
Survey area #7A	702	0	2,144		1,532	1,678	2,259	1,747	1,769	680
Survey area #7B	278	0	1,413		738	1,522	775	318	8,208	1995
Survey area #8A	5,080	12,710	2,190	5,423	7,896	7,856	4,397	3,215	3,365	12376
Survey area #8B	1,029	4,129	551	4,479	2,984	3,817	2,906	2,482	5,766	5477
Survey area #9	7,498	1,838	3,499	1,850	3,610	4,287	6,516	12,453	2,803	1881
New Unit – Boise									3,760	4441
Survey area #10	14,130	1,212	6,029	13,540	7,844	16,893	512	5,060	2,663	917
Survey area #11	1,560	1,413	1,050	312	948	1,034	585	561	2,810	6907
<i>Total</i>	<i>37,957</i>	<i>39,474</i>	<i>29,374</i>	<i>43,489</i>	<i>43,336</i>	<i>53,509</i>	<i>39,078</i>	<i>44,912</i>	<i>44,570</i>	<i>37292</i>
Rocky Mountain Population <sup>d</sup>	7,778	18,172	12,369	17,392	17,899	17,434	20,404	18,869	12,373	1829
Percent	21	46	42	40	40	33	52	42	28	5%
Pacific Population <sup>d</sup>	30,184	21,302	17,005	26,097	25,438	36,075	<sup>b</sup> 18,674	27,813	32,197	35463
Percent	79	54	58	60	60	67	48	58	72	95%
Pacific Population Plan Unit 2 <sup>e</sup> (south)	14,494	18,677	9,926	12,245	16,645	18,128	17,577	22,192	26,724	23198
Pacific Population Plan Unit 4 <sup>e</sup> (north)	15,690	2,625	7,079	13,852	8,792	17,927	<sup>b</sup> 1,097	5,621	5,473	7824

<sup>a</sup> Survey Areas are as follows: #1 = South Fork Snake River to Palisades Reservoir, Teton River, Buffalo River, Island Park Reservoir, North Fork (Henrys Fork) of the Snake River and tributaries; #2 = Market Lake WMA, Roberts Slough; #3 = Mud Lake WMA, Camas Creek, Independent Canal; #4 = Camas National Wildlife Refuge; #5 = American Falls Reservoir, Snake River from Massacre Rocks to Blackfoot, Clear Creek, Spring Creek; #6 = Minidoka National Wildlife Refuge; #7 = Hagerman WMA; #7A = Snake River from Massacre Rocks to U.S. Hwy. 93; #7B = Snake River from U.S. Hwy. 93 to State Hwy. 51; #8A = Snake River from State Hwy. 51 to the Ada-Canyon County line (except the Deer Flat National Wildlife Refuge portion), C.J. Strike WMA, Payette River, Boise River; #8B = Deer Flat National Wildlife Refuge portion of the Snake River (Ada-Canyon County line to Farewell Bend); #9 = Deer Flat National Wildlife Refuge (Lake Lowell only); #10 = Pend Oreille River, Clark Fork River, Pend Oreille Lake, Coeur d'Alene Lake, Coeur d'Alene River; #11 = Lower Clearwater River, Mann's Lake.

<sup>b</sup> Survey incomplete. See USFWS "Idaho midwinter waterfowl count report" for details.

<sup>c</sup> No survey conducted; previous five-year average.

<sup>d</sup> Rocky Mountain Population includes Survey Areas 1 through 6 and 7A; Pacific Population includes Survey Areas 7, 7B, and 8A through 11.

<sup>e</sup> Pacific Population Canada Goose Management Plan Units, Pacific Flyway. Pacific Population Plan Unit 2 includes Survey Areas 7, 7B, 8A, 8B, and 9. Pacific Population Plan Unit 4 includes Survey Areas 10 and 11.

Table 4. Estimated harvest of Canada geese from the Pacific Population (west of U.S. Hwy 93) obtained from the Department telephone survey, 1988-2008.

Year	% of license buyers sampled	Harvest	Hunters	Days hunted
1988	4.6	19,700 ± 5,300	5,800 ± 700	45,800 ± 5,500
1989	3.0	20,900 ± 5,900	6,600 ± 900	50,100 ± 8,500
1990	3.0	27,300 ± 8,300	5,300 ± 800	43,900 ± 6,800
1991	4.0	42,700 ± 19,300	5,300 ± 700	52,700 ± 7,300
1992	2.5	40,900 ± 14,200	8,100 ± 1,200	67,500 ± 10,500
1993 <sup>a</sup>	2.5	43,000 <sup>b,c</sup>	10,400 <sup>c</sup>	88,700 <sup>c</sup>
1994 <sup>a</sup>	5.5	73,000 <sup>c</sup>	<sup>c</sup>	<sup>c</sup>
1995 <sup>a</sup>	3.9 <sup>c</sup>	64,700 ± 8,500	15,300 ± 3,500	140,000 ± <sup>c</sup>
1996 <sup>d</sup>				
1997 <sup>d</sup>				
1998 <sup>d</sup>				
1999 <sup>d</sup>				
2000 <sup>d</sup>				
2001 <sup>d</sup>				
2002	4.4 <sup>e</sup>	24,500 <sup>c,f</sup>	8,500 <sup>c</sup>	75,700 <sup>c</sup>
2003	3.3 <sup>g</sup>	59,600	9,800	85,100
2004	4.9 <sup>h</sup>	37,900	8,800	66,000
2005	5.3 <sup>i</sup>	39,700	8,800	72,900
2006	5.0 <sup>j</sup>	48,555	9,600	71,000
2007	4.4 <sup>k</sup>	49,940	7,900	65,800
2008	4.5 <sup>l</sup>	61,100	8,200	71,000

<sup>a</sup> Survey was conducted by a private contractor using some procedures which differed from those used by the Department in preceding years. Consequently, estimates are not comparable to those for preceding years.

<sup>b</sup> Rough estimate.

<sup>c</sup> Data or confidence intervals not available. Other years show 95% confidence interval.

<sup>d</sup> No harvest estimate; survey not conducted.

<sup>e</sup> 553 goose hunters were contacted or about 4.4% of the 12,500 estimated goose hunters.

<sup>f</sup> The proportion of PP geese in the Magic Valley was estimated to be 67%.

<sup>g</sup> 515 goose hunters were contacted or about 3.3 % of the estimated 15,400 goose hunters.

Beginning in 2003, hunters were specifically asked whether they were hunting in the Pacific or Rocky Mountain population zones.

<sup>h</sup> 705 hunters were contacted or about 4.9% of the estimated 14,300 goose hunters.

<sup>i</sup> 742 hunters were contacted or about 5.3% of the estimated 14,100 goose hunters.

<sup>j</sup> 727 hunters were contacted or about 5.0% of the estimated 14,500 goose hunters.

<sup>k</sup> 601 hunters were contacted or about 4.4% of the estimated 13,500 goose hunters.

<sup>l</sup> 589 hunters were contacted or about 4.5% of the estimated 13,000 goose hunters.

Table 5. Estimated harvest of Canada geese from the Rocky Mountain Population (east of U.S. Hwy 93) obtained from the Department telephone survey, 1988-2008.

Year	% of license buyers sampled	Harvest	Hunters	Days hunted
1988	4.6	18,600 ± 6,900	4,300 ± 600	32,300 ± 5,800
1989	3.0	25,600 ± 9,300	5,000 ± 800	45,600 ± 14,100
1990	3.0	31,400 ± 12,700	6,300 ± 800	54,100 ± 14,100
1991	4.0	28,500 ± 8,000	7,700 ± 800	64,400 ± 6,900
1992	2.5	20,100 ± 8,300	4,300 ± 900	31,700 ± 6,900
1993 <sup>a</sup>	2.5	31,100 <sup>b,c</sup>	6,400 <sup>c</sup>	56,700 <sup>c</sup>
1994 <sup>a</sup>	5.5	29,400 <sup>b,c</sup>	<sup>c</sup>	<sup>c</sup>
1995 <sup>a</sup>	3.9 <sup>b</sup>	33,400 ± 6,600	5,700 ± 2,100	61,600 <sup>c</sup>
1996 <sup>d</sup>				
1997 <sup>d</sup>				
1998 <sup>d</sup>				
1999 <sup>d</sup>				
2000 <sup>d</sup>				
2001 <sup>d</sup>				
2002	4.4 <sup>e</sup>	17,400 <sup>c,f</sup>	4,400 <sup>c</sup>	35,600 <sup>c</sup>
2003	3.3 <sup>g</sup>	31,500	5,800	42,300
2004	4.9 <sup>h</sup>	29,200	5,500	42,200
2005	5.3 <sup>i</sup>	42,900	5,900	49,800
2006	5.0 <sup>j</sup>	26,900	5,400	38,700
2007	4.4 <sup>k</sup>	36,100	5,600	44,200
2008	4.5 <sup>l</sup>	31,100	4,900	40,000

<sup>a</sup> Survey was conducted by a private contractor using some procedures which differed from those used by the Department in preceding years. Consequently, estimates are not comparable to those for preceding years.

<sup>b</sup> Rough estimate.

<sup>c</sup> Data or confidence interval not available. Other years show 95% confidence interval.

<sup>d</sup> No harvest estimate; survey not conducted.

<sup>e</sup> 553 goose hunters were contacted or about 4.4% of the 12,500 estimated goose hunters.

<sup>f</sup> The proportion of RMP geese in the Magic Valley was estimated to be 33%.

<sup>g</sup> 515 goose hunters were contacted or about 3.3 % of the estimated 15,400 goose hunters. In 2003 hunters were specifically asked whether they were hunting in the Pacific or Rocky Mountain population zones.

<sup>h</sup> 705 hunters were contacted or about 4.9% of the estimated 14,300 goose hunters.

<sup>i</sup> 742 hunters were contacted or about 5.3% of the estimated 14,100 goose hunters.

<sup>j</sup> 727 hunters were contacted or about 5.0% of the estimated 14,500 goose hunters.

<sup>k</sup> 601 hunters were contacted or about 4.4% of the estimated 13,500 goose hunters.

<sup>l</sup> 589 hunters were contacted or about 4.5% of the estimated 13,000 goose hunters.

Table 6. Estimated statewide harvest of Canada geese obtained from the Department telephone survey, 1988-2008.

Year	% license buyers sampled	Harvest	Average birds per hunter per year	Hunters	Days hunted	Days hunted per hunter per year
1988	4.6	38,300 ± 7,000	3.8	10,200 ± 900	78,200 ± 8,100	7.7
1989	3.0	46,500 ± 10,400	4.0	11,600 ± 1,200	95,700 ± 14,000	8.3
1990	3.0	58,700 ± 15,100	5.1	11,600 ± 1,100	98,000 ± 9,700	8.4
1991	4.0	71,200 ± 19,800	5.5	13,000 ± 1,100	117,100 ± 10,100	9.0
1992	2.5	61,000 ± 17,000	4.9	12,400 ± 1,500	99,200 ± 12,100	8.0
1993 <sup>a</sup>	2.5 <sup>b</sup>	74,100 ± 11,500	4.4	16,800 ± 400	145,400 ± 12,600	8.7
1994 <sup>a</sup>	5.3	102,500 ± 11,500	5.6	17,800 ± 4,000	178,000 ± 13,400	10.1
1995 <sup>a</sup>	3.9 <sup>b</sup>	98,000 ± 10,800	4.7 ± .5 <sup>c</sup>	21,000 ± 4,100	201,600 ± 13,200	9.6 ± .6 <sup>c</sup>
1996 <sup>d</sup>						
1997 <sup>d</sup>						
1998 <sup>d</sup>						
1999 <sup>d</sup>						
2000 <sup>d</sup>						
2001 <sup>d</sup>						
2002	4.4 <sup>e</sup>	41,800	3.3	12,500	110,200	8.8
2003	3.3 <sup>f</sup>	93,500	6.0	15,400	132,300	8.4
2004	4.9 <sup>g</sup>	67,100	4.7	14,300	108,300	7.6
2005	5.3 <sup>h</sup>	82,600	5.9	14,100	122,600	8.7
2006	5.0 <sup>i</sup>	75,500	5.2	14,500	109,700	7.6
2007	4.4 <sup>j</sup>	86,000	6.4	13,510	109,900	8.1
2008	4.5 <sup>k</sup>	92,300	7.1	13,000	111,000	8.5

<sup>a</sup> Survey was conducted by a private contractor using some procedures which differed from those used by the Department in preceding years. Consequently, estimates are not comparable to those for preceding years.

<sup>b</sup> Approximate.

<sup>c</sup> 95% confidence interval.

<sup>d</sup> No harvest estimate; survey not conducted.

<sup>e</sup> 553 hunters were contacted or about 4.4% of the 12,500 estimated goose hunters.

<sup>f</sup> 515 hunters were contacted or about 3.3 % of the estimated 15,400 goose hunters.

<sup>g</sup> 705 hunters were contacted or about 4.9% of the estimated 14,300 goose hunters.

<sup>h</sup> 742 hunters were contacted or about 5.3% of the estimated 14,100 goose hunters.

<sup>i</sup> 727 hunters were contacted or about 5.0% of the estimated 14,500 goose hunters.

<sup>j</sup> 601 hunters were contacted or about 4.4% of the estimated 13,500 goose hunters.

<sup>k</sup> 589 hunters were contacted or about 4.5% of the estimated 13,000 goose hunters.

Table 7. Ducks banded in Idaho by Department and USFWS personnel, 2009.

Species	Panhandle	Clearwater	Southwest	Magic Valley	Southeast	Upper Snake	Salmon	Total
Mallard	993	12	42	34	0	977	0	2,058
Wood Duck	239	0	0	0	0	0	0	239
Ring-necked	2	0	0	0	0	0	0	2
Redhead	3	0	0	0	0	0	0	3
Northern Pintail	9	16	1	0	0	33	0	59
American Widgeon	0	1	0	0	0	0	0	1
Teal	19	5	0	0	0	9	0	33
Gadwall	1	0	0	0	0	11	0	12
Northern Shoveler	0	0	0	0	0	1	0	1
Lesser Scaup	0	0	0	0	0	0	0	0
Hooded Merganser	1	0	0	0	0	0	0	1
Total	1,263	34	43	34	0	1,031	0	2,409

Table 8. Mallards banded in Idaho by Department and USFWS personnel, 1991-2009.

IDFG Region	1991-2003	2004	2005	2006	2007	2008	2009	Total
Panhandle	8,539	1,992	1,823	1,081	1,392	1,315	993	17,135
Kootenai NWR	1,365	0	0	0	0	0	0	1,365
Clearwater	98	0	0	0	0	0	12	110
Southwest	2,348	0	0	0	0	40	42	2,430
Deer Flat NWR	3,321	596	440	509	144	216	0	5,226
Magic Valley	1,226	0	0	0	0	0	34	1,260
Minidoka NWR	822	0	0	0	0	0	0	822
Southeast	31	0	0	0	0	0	0	31
Grays Lake NWR	7,236	0	0	0	0	0	0	7,236
Bear Lake NWR	3,460	0	0	0	0	0	0	3,460
Upper Snake	1,257	0	0	77	147	309	977	2,767
Camas NWR	775	0	0	0	0	0	0	775
Tribal	1,554	0	0	0	0	0	0	1,554
Salmon	0	0	0	0	0	0	0	0
Total	32,032	2,588	2,263	1,667	1,683	1,880	2,058	44,171

Table 9. Idaho goose population survey areas (RMP in gray), 2009 counts, three-year averages, and management objectives.

Region/Survey Area <sup>b</sup>	2009 Counts		Average 2007-2009		Objectives <sup>a</sup> (min.)	
	Nests	Pairs	Nests	Pairs	Nests	Pairs
Panhandle						
1 Coeur d'Alene River WMA	76		76		35	
2 Boundary Creek WMA	10		9			
3 McArthur WMA	47		37		70	
4 Pend Oreille WMA	152		127		85	
Clearwater						
5 Clearwater River		52 <sup>c</sup>	49			40
6 Remainder of Region (discontinued)						
Southwest						
7 Cascade Reservoir		44		82		100
8 Boise River		117		86		100
9 Payette River		112		130		200
10 Snake River South		552		562		700
11 Snake River North		ND		ND		50
Magic Valley						
12 Camas Prairie		ND		ND		285
13 Snake River (Hwy 51 to Hwy 93)		ND		ND		175
14 Snake River (Hwy 93 to Minidoka)		54		ND		60
15 Snake River (Minidoka to American Falls)		7		ND		120
16 Little Wood River		ND		ND		
Southeast						
17 Alexander Reservoir		ND		ND		
18 American Falls Reservoir		14		19		
19 Bear Lake NWR		ND		ND		640
20 Bear River(Soda Springs-Montpelier)		ND		ND		
21 Bear River(Montpelier-ID/WY border)		ND		ND		
22 Blackfoot Reservoir-(upper)		ND		ND		150
23 Blackfoot Reservoir		ND		ND		
24 Chesterfield Reservoir		2		4		
25 Grays Lake NWR		ND		ND		350
26 Malad Valley		10		13		
27 Marsh Creek		48		44		190
28 Portneuf River(Chesterfield-Inkom)		55		41		
29 Snake River(American Falls-Shelley)		45		34		
30 Sterling WMA		19		12		
31 Swan Lake and Oxford Slough		27		33		100
Upper Snake						
32 Market Lake WMA		13		35		85
33 Mud Lake WMA		16		52		95
34 Camas NWR		12		27		130
35 South Fork Snake River		6		31		
36 Teton Basin		7		37		90
37 North Fork Snake River		6		4		15
38 Island Park Reservoir		19		23		60
Salmon						
39 Salmon River		257		240		175

<sup>a</sup> Connelly and Wackenhut (1990).

<sup>b</sup> See Figure 2.

<sup>c</sup> Changed survey from nests to pairs in 2007, because nesting platforms were removed.

Table 10. Active nests and indicated pairs of Canada geese (RMP in gray) in Idaho, 2005-2009.

Survey Area <sup>a</sup>	2005		2006		2007		2008		2009	
	N	P	N	P	N	P	N	P	N	P
Region 1										
1	49		91		91		60		76	
2	ND		ND		8		10		10	
3	30		46		29		35		47	
4	98		39		123		107		152	
Region 2										
5		ND	29		43		53			52
6 discontinued										
Region 3										
7		89		35		119		ND		44
8		ND		ND		56		86		117
9		114		117		154		125		112
10		562		741		551		584		552
11		ND								
Region 4										
12		ND		174		ND		ND		ND
13		ND		30		ND		ND		ND
14		ND		29		ND		ND		54
15		ND		82		ND		ND		7
16		ND								
Region 5										
17		ND		ND		8		ND		ND
18		15		15		30		13		14
19		398		669		190		ND		ND
20		24		25		61		ND		ND
21		77		57		ND		ND		ND
22		28		ND		ND		ND		ND
23		ND		42		38		ND		ND
24		4		1		4		5		2
25		40		105		21		ND		ND
26		21		24		4		26		10
27		62		45		14		70		48
28		88		16		7		60		55
29		23		25		22		36		45
30		10		19		9		7		19
31		44		18		19		52		27
Region 6										
32		37		67		57		34		13
33		65		57		75		66		16
34		28		22		38		30		12
35		29		8		35		51		6
36		21		27		33		70		7
37		14		7		3		3		6
38		175		67		33		18		19
Region 7										
39		N/A		333		263		7	201	257

<sup>a</sup> See Figure 2. N = # of active nests; P = # of indicated pairs.

Table 11. September aerial and ground-based counts of RMP greater sandhill cranes in eastern Idaho, 2005-2009.

Region/Area	2005	2006	2007	2008	2009
<b>Magic Valley</b>					
Camas Prairie	0	a	2	b	103
Carey Lake	0	a	0	0	0
Silver Creek	567	a	316	397	381
<b>Southeast</b>					
American Falls Reservoir	67	a	89	124	91
Bear River Valley	1,001	a	1,690	321	780
Blackfoot Reservoir	467	a	284	752	361
Chesterfield Reservoir	138	a	27	111	109
Grays Lake	1,384	a	1,943	41	1,483
Malad River					277
Marsh Valley	245	a	127	304	167
Oxford Slough	145	a	373	152	231
<b>Upper Snake</b>					
Ashton-St. Anthony	716		807	798	830
Camas NWR	532	313	632	475	806
Henry's Lake Flats	35	a	8	3	28
Island Park Reservoir	2	a	0	8	34
Kilgore	0	a	0	0	0
Market Lake WMA	0	0	0	0	0
Mud Lake WMA	100	291	364	94	ND
Teton Basin	1,834	a	1,477	1,591	1,253
<b>Total</b>	<b>7,670</b>	<b>604</b>	<b>8,457</b>	<b>5,472</b>	<b>6,934</b>

<sup>a</sup> Aerial counts not conducted in 2006 due to aircraft mechanical problems.

<sup>b</sup> Pre-count reports from the Camas Prairie indicated that there were no cranes; therefore, the survey was not completed

Table 12. Sandhill crane permit levels, estimated hunter participation, and harvest based on mail and telephone surveys, 2005-2009.

Hunt Area	2005	2006	2007	2008	2009
<b>Bear Lake-Caribou County</b>					
Permits available	300	300	300	300	400
Tags issued	243	224	261	221	332
Total hunters	114	119	223	112	170
Days hunted	313	293	336	230	449
% Success <sup>a</sup>	45	59	48	44	50
Harvest	109	132	117	90	150
<b>Bonneville County</b>					
Permits available			20 <sup>b</sup>	40 <sup>b</sup>	40
Tags issued			17	6	22
Total hunters			8	4	15
Days hunted			17	8	38
% Success <sup>a</sup>			25	25	28
Harvest			2	1	6
<b>Fremont County</b>					
Permits available	70	100	80	100	100
Tags issued	66	82	78	71	100
Total hunters	57	66	63	62	71
Days hunted	101	121	103	98	192
% Success <sup>a</sup>	70	52	60	55	56
Harvest	46	43	40	34	50
<b>Jefferson County</b>					
Tags available			20	40	40
Tags issued			13	26	31
Total hunters			8	20	17
Days hunted			18	20	49
% Success <sup>a</sup>			75	61	49
Harvest			8	13	12
<b>Teton County</b>					
Permits available	70	100	80	100	100
Tags issued	60	92	83	73	100
Total hunters	45	57	67	53	53
Days hunted	90	101	84	109	124
% Success <sup>a</sup>	55	66	58	65	50
Harvest	33	61	45	47	35
<b>State Total</b>					
Permits available	440	500	500	580	680
Tags issued	369	398	452	397	585
Total hunters	216	241	293	238	326
Days hunted	504	515	558	465	852
% Success <sup>a</sup>	51	59	52	51	50
Harvest	188	235	211	185	254

<sup>a</sup> Success rate shown is harvest per permit issued.

<sup>b</sup> Data shown is for Hunt # 9506, 1-7 September. No hunters from Hunt # 9507, 8-15 September, responded to the survey.

Table 13. Age composition of sandhill crane harvest based on mail and telephone surveys, 2005-2009.

Hunt Area	2005	2006	2007	2008	2009
Bear Lake-Caribou County					
Juvenile	24	26	18	13	24
Adult	85	105	99	77	126
Unknown					
Bonneville County					
Juvenile			0 <sup>b</sup>	1 <sup>b</sup>	3
Adult			2	0	3
Unknown					
Fremont County					
Juvenile	9	5	2	6	10
Adult	37	38	43	27	40
Unknown	0 <sup>a</sup>	0 <sup>a</sup>			
Jefferson County					
Juvenile			0	0	3
Adult			8	13	9
Unknown					
Teton County					
Juvenile	2	19	7	7	4
Adult	31	42	33	40	31
Unknown	0 <sup>a</sup>	0 <sup>a</sup>			

<sup>a</sup> Birds not classified as adult were assumed to be juvenile.

<sup>b</sup> Data shown is for Hunt # 9506, 1-7 September. No hunters from Hunt # 9507, 8-15 September, responded to the survey.

**APPENDIX A**

IDAHO

2009 SEASON

WATERFOWL RULES

# 2008 Waterfowl Seasons and Rules



*Photo courtesy of N.S. Norkentved, Idaho Fish and Game*



## RULES

September 2008  
through  
January 2009



**Goose Seasons and Hunt Area Descriptions**

(Including: Dark Geese—Canada and White-fronted,  
Light Geese—Ross' and Snow)

**AREA 1**

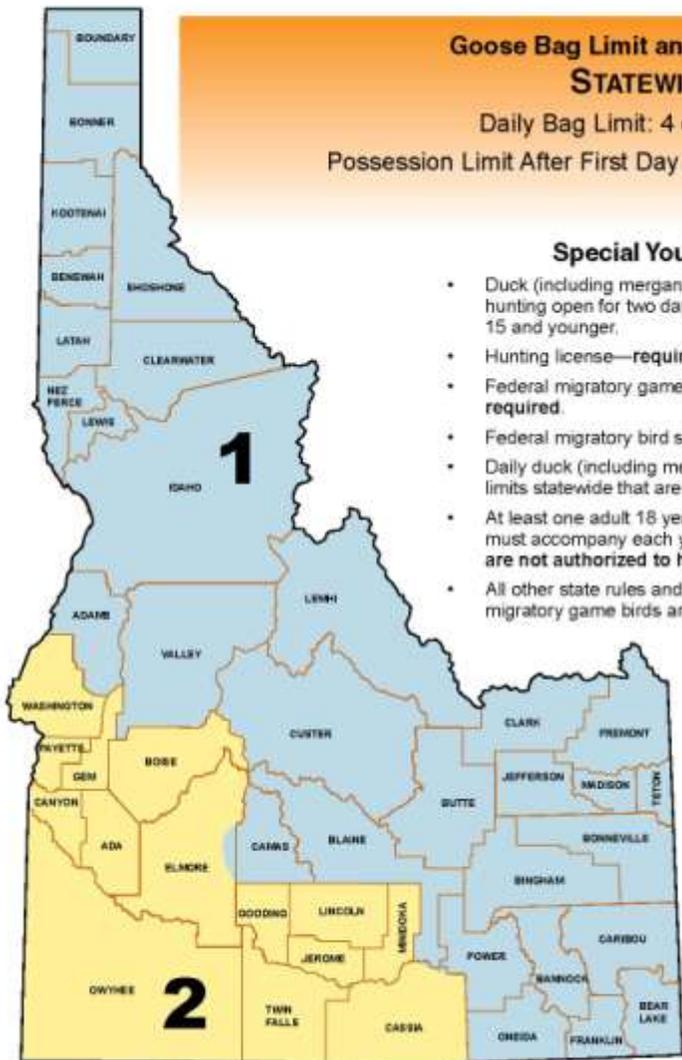
Area 1 includes all parts of the state **not** included in Area 2. Fremont and Teton counties are **closed** to the taking of light geese.

**Open Season:**  
**October 4, 2008 through January 16, 2009**

**AREA 2**

Area 2 includes the following counties or portions of counties: Ada; Boise; Canyon; Cassia - **except** the Minidoka National Wildlife Refuge; ; Elmore - **except** the Camas Creek drainage; Gem; Gooding; Jerome; Lincoln; Minidoka; Owyhee; Payette; Twin Falls; and Washington counties.

**Open Season:**  
**October 11, 2008 through January 23, 2009**



**Goose Bag Limit and Hunt Areas**  
**STATEWIDE**  
Daily Bag Limit: 4 of any kind.  
Possession Limit After First Day of Season: 8 of any kind.

**Special Youth Waterfowl Hunting Days**

- Duck (including merganser and canvasback), goose, snipe, and coot hunting open for two days only, on September 27 and 28, 2008, to hunters 15 and younger.
- Hunting license—**required**.
- Federal migratory game bird harvest information program validation—**required**.
- Federal migratory bird stamp—**not required**.
- Daily duck (including merganser), goose, snipe, and coot bag limits: Same limits statewide that are in effect during regular seasons.
- At least one adult 18 years of age or older having a valid hunting license, must accompany each youth hunting party into the field at all times. **Adults are not authorized to hunt**.
- All other state rules and federal regulations pertaining to the taking of migratory game birds are in effect for this hunt.

**HELP PRESERVE THE TRADITION— TAKE A KID WATERFOWL HUNTING!**

## Statewide Duck (Including Merganser), Common Snipe and American Coot Seasons and Limits

### AREA 1

Area 1 includes all parts of the state **not** included in Area 2.

**Open Season:**  
October 4, 2008 through January 16, 2009

**Canvasback: Closed**

**Scaup Season:**  
October 25, 2008 through January 16, 2009

### AREA 2

Area 2 includes the following counties or portions of counties:

Ada; Boise; Canyon; Cassia - **except** the Minidoka National Wildlife Refuge; Elmore - **except** the Camas Creek drainage; Gem; Gooding; Jerome; Lincoln; Minidoka; Owyhee; Payette; Power west of State Highway 37 and State Highway 39 **except** the Minidoka National Wildlife Refuge; Twin Falls; and Washington Counties.

**Open Season:**  
October 11, 2008 through January 23, 2009

**Canvasback: Closed**

**Scaup Season:**  
November 1, 2008 through January 23, 2009

**DUCK**



Report  
Duck And Goose  
Leg Bands



1-800-327-band (2263) or  
[www.pwrc.usgs.gov/bbl](http://www.pwrc.usgs.gov/bbl)

### Duck Bag Limit

(Including mergansers)

**Canvasback, season closed**

**Daily Bag Limit:** 7 of any kind except:  
Shall not include more than the following:  
2 female mallards  
2 redheads  
1 pintail  
2 scaup (lesser or greater in the aggregate)

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

14 of any kind except:  
Shall not include more than the following:  
4 female mallards  
4 redheads  
2 pintail  
4 scaup (lesser or greater in the aggregate)

### Bag Limits for Areas 1 and 2 for Coots and Common Snipe

#### Coots

Daily Bag Limit: 25

Possession Limit

After First Day of Season: 25

#### Common Snipe

Daily Bag Limit: 8

Possession Limit

After First Day of Season: 16

<http://fishandgame.idaho.gov>

7

Appendix Table A-1. Idaho waterfowl management, season structure, and limits, 1990-present.

Year	Duck			Goose		
	Management Areas	Season Length (days)	Daily Limit <sup>a</sup>	Management Areas	Season Length (days)	Daily Limit <sup>a</sup>
1990-1991	2	59	4	5	93	3
1991-1992	3	59	4	5	93	3
1992-1993	3	59	4	5	93	3
1993-1994	3	59	4	5	93	4 (3)
1994-1995	3	59	4	5	93	4 (3)
1995-1996	3	93	6	5	100	4 (3)
1996-1997	3	107	7	5	100	4 (3)
1997-1998	2	107	7	5	100	4 (3)
1998-1999	2	107	7	3	100	4 (3)
1999-2000	2	107	7	3	100	4 (3)
2000-2001	2	107	7	3	100	4 (3)
2001-2002	2	107	7	3	100	4 (3)
2002-2003	2	107	7	4	100	4 (3)
2003-2004	2	107	7	3	107	4 (3)
2004-2005	3	107	7 (5)	3	107	4 (3)
2005-2006	2	107	7	2	107	4
2006-2007	2	107	7	2	107	4
2007-2008	2	107	7	2	107	4
2008-2009	2	107	7	2	107	4

<sup>a</sup> Numbers in parenthesis indicate management areas had different daily limits.

## Equipment Restrictions

- Shot Sizes: Sandhill cranes may legally be taken with shot size T (0.2 inches in diameter) or smaller (lead or nontoxic).
- No person may take migratory game birds with any shotgun capable of holding more than three shells unless it is plugged with a one-piece filler which is incapable of removal without disassembling the gun.

### Shooting Hours:

Shooting hours are from one-half hour before sunrise to sunset. For exact time, check the current upland game brochure on page 29.



*The 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, sex, or handicap. If you feel you have been discriminated against in any program, activity, or facility of 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 The Office of Human Resources, U.S. Fish and Wildlife Service, Department of the Interior, Washington, DC 20260*

Information in this brochure summarizes the rules and is the official proclamation of the Idaho Fish and Game Commission for the hunting of sandhill cranes in calendar year 2009. Further explanation is available in the current upland game seasons brochure. The official rules are available from the Division of Statewide Administrative Rules, Department of Administration, Statehouse Mail, Boise, ID 83720.

Cover associated with this publication are available from IDFG at accordance with section 00-202 Idaho Code. tel: 6-09-2399-4303

## IDAHO 2009

### SANDHILL CRANE Season Information



Crane hunters must have a \$1.75 Federal Migratory Game Bird Harvest Information Program (HIP) validation on their licenses. This validation is available at any license vendor.

**Requirements:** No person shall hunt sandhill cranes without having in possession the appropriate hunting license, sandhill crane tag and federal HIP validation.

#### FEES - includes vendor fee

Sandhill Crane Tag ..... \$15.00

Federal HIP Validation ..... \$1.75

Note: The HIP validation is required with the first tag only.



## What's New?

- Sandhill crane hunting is no longer a controlled hunt season!
- Please see boundary changes (**bold**) in Areas 2 and 3.
- Tags will be available for purchase on August 1 on a first-come, first-served basis.
- Seasons have been extended in Area 1.
- Seasons have been combined into one two-week period for Areas 2 through 5.
- Tag price has been discounted **Now \$15!**

Sandhill Crane Seasons, Limits and Tags		
Hunt Area	Season	Tags
1	September 1-30	400
2	September 1-15	100
3	September 1-15	100
4	September 1-15	40
5	September 1-15	40

Note: Daily limit is 2 for all hunts. The season limit is 9.

One of the purposes of these hunts is to help reduce crop damage by sandhill cranes. Check with local landowners or Department offices for information on crane use areas and remember: always ***“Ask First to Hunt on Private Property.”***

Tags will be available for purchase August 1 on a first-come, first-served basis.

Tags are available at any Fish and Game license vendor, by telephone (1-800-554-8685), or the Fish and Game website:  
<http://fishandgame.idaho.gov>.

Sandhill Crane Hunt Areas include the following:

**Area 1** — Includes all of Bear Lake County and all of Caribou County except that portion downstream from the dam at Alexander Reservoir south of U.S. Highway 30, and that portion lying within the Grays Lake Basin.

**Area 2** — Includes all of Teton County **except that portion lying west of Highway 33 and south of Packsaddle Road (West 400 North) and north of the North Cedron Road (West 600 South) and east of the west bank of the Teton River.**

**Area 3** — Includes all of Fremont County **except the Chester Wetlands Wildlife Management Area.**

**Area 4** — Includes all of Bonneville County.

**Area 5** — Includes all of Jefferson County.

*An adult sandhill crane stands nearly four feet tall. Grayish plumage is accented by a red head patch. Juveniles have tannish brown heads with no red.*

**Adult**



**Juvenile**



Which one did you get?

Submitted by:

Jim Hayden  
Regional Wildlife Manager

Jay Crenshaw  
Regional Wildlife Manager

Steve Nadeau  
Regional Wildlife Manager

Jeff Rohlman  
Regional Wildlife Manager

Randy Smith  
Regional Wildlife Manager

Toby Boudreau  
Regional Wildlife Manager

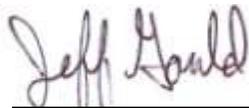
Daryl Meints  
Regional Wildlife Manager

Tom Keegan  
Regional Wildlife Manager

Approved by: IDAHO DEPARTMENT OF FISH AND GAME



Brad Compton, Asst. Chief  
Bureau of Wildlife

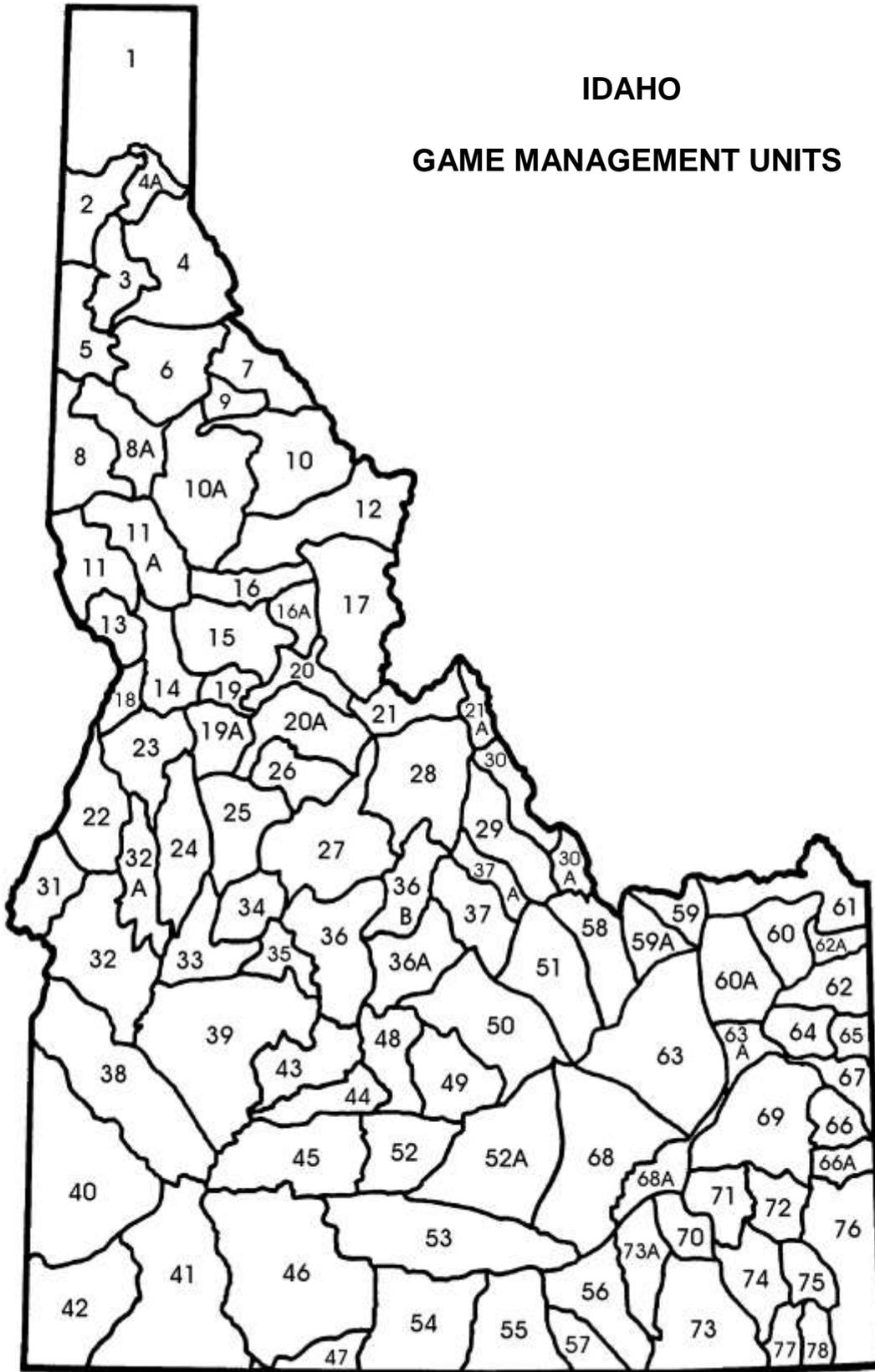


Jeff Gould, Chief  
Bureau of Wildlife



# IDAHO

## GAME MANAGEMENT UNITS



## FEDERAL AID IN WILDLIFE RESTORATION

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

