

IDAHO DEPARTMENT OF FISH AND GAME

Steven M. Huffaker, Director

Project W-170-R-30

Progress Report



WATERFOWL PRODUCTION AND SUMMER BANDING

Study II, Job 2

April 1, 2006 to September 30, 2006

Prepared by:

Jim Hayden, Brian Helmich..... Panhandle Region
Jay Crenshaw, Miles Benker..... Clearwater Region
Jon Rachael, Kevin Warner Southwest (Nampa) Region
Jeff Rohlman.....Southwest (McCall) Region
Randy Smith, Regan Berkley..... Magic Valley Region
Carl Anderson..... Southeast Region
Daryl Meints, Justin Naderman Upper Snake Region
Tom Keegan, Greg PainterSalmon Region

Compiled and edited by: Tom Hemker, Wildlife Program Coordinator

December 2006
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Findings in this report are preliminary in nature and not for publication without permission of the Director of the Idaho Department of Fish and Game.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

ABSTRACT..... 1

STUDY OBJECTIVES..... 2

PROCEDURES..... 2

RESULTS 2

 DUCKS (ALL SPECIES)..... 2

 CURRENT MANAGEMENT PLAN GOALS 2

 MANAGEMENT AREAS 2

 Management Area 1 2

 Management Area 2..... 4

 Management Area 3..... 4

 REGIONAL REPORTS..... 5

 Panhandle Region 5

 Clearwater Region 6

 Southwest (Nampa) Region 7

 Southwest (McCall) Region..... 7

 Magic Valley Region 7

 Southeast Region 8

 Upper Snake Region 9

 Salmon Region..... 11

 GEESE (ALL SPECIES) 12

 CURRENT MANAGEMENT PLAN GOALS 12

 MANAGEMENT AREAS 12

 Management Area 1 12

 Management Area 2..... 13

 Management Area 3..... 14

 Management Area 4..... 14

 Management Area 5..... 15

 REGIONAL REPORTS..... 15

 Panhandle Region 15

 Clearwater Region 17

 Southwest (Nampa) Region 18

TABLE OF CONTENTS (Continued)

Southwest (McCall) Region.....19
Magic Valley Region19
Southeast Region20
Upper Snake Region20
Salmon Region.....23
SANDHILL CRANE23
CURRENT GOALS.....23
REGIONAL REPORTS.....25
 Southwest (McCall) Region.....25
 Magic Valley Region25
 Southeast Region25
 Upper Snake Region26
 Salmon Region.....27
TRUMPETER SWAN27
 REGIONAL REPORTS.....27
 Magic Valley Region27
 Upper Snake Region28
TUNDRA SWAN28
 REGIONAL REPORTS.....28
 Magic Valley Region28
 Upper Snake Region28
AMERICAN COOT28
COMMON SNIPE29
LITERATURE CITED29
APPENDIX A.....38

LIST OF TABLES

Table 1. Ducks banded in Idaho by IDFG and USFWS personnel, 2006. 32
Table 2. Mallards banded in Idaho by IDFG and USFWS personnel, 1991-2006. 32

TABLE OF CONTENTS (Continued)

Table 3. Idaho goose population survey areas (RMP in gray), 2006 counts, 3-year averages, and management objectives.	33
Table 4. Active nests, indicated pairs, and total number of Canada geese (RMP in gray) in Idaho, 2002-2006.	34
Table 5. September aerial counts of RMP greater sandhill cranes in eastern Idaho, 1999-2006.	35
Table 6. Sandhill cranes counted during ground-based surveys in eastern Idaho, 1996-2002.	35
Table 7. Sandhill crane permit levels, estimated hunter participation and harvest based on mail and telephone surveys, 2002-2006.	36
Table 8. Age composition of sandhill crane harvest based on mail and telephone surveys, 2002-2006.	37

LIST OF FIGURES

Figure 1. Distribution of Pacific and Rocky Mountain Canada geese populations within Idaho.	30
Figure 2. Idaho Canada goose nesting survey areas.	31

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Waterfowl Production and</u>
PROJECT:	<u>W-170-R-30</u>		<u>Summer Banding</u>
SUBPROJECT:	<u>1-7</u>	STUDY NAME:	<u>Upland Game and Waterfowl</u>
STUDY:	<u>II</u>		<u>Population Status and Trends</u>
JOB:	<u>2</u>		
PERIOD COVERED:	<u>April 1, 2006 to September 30, 2006</u>		

ABSTRACT

Data collected on resident ducks, Canada geese, sandhill cranes, trumpeter swans, and tundra swans from 1 April 2006 through 30 September 2006 are reported. Data were collected and analyzed by Idaho Department of Fish and Game personnel stationed in the state's 7 regions and 1 subregion. Data are presented in regional reports prepared by regional personnel and compiled by Bureau of Wildlife personnel.

In 2006, Idaho banded 2,097 mallards. Since 1991, 38,550 mallards have been banded in Idaho. Active nests of Pacific Population (PP) Canada geese counted on man-made structures on 4 survey areas in north Idaho totaled 201 in 2006. Indicated breeding pairs of PP Canada geese on survey areas in southern Idaho totaled 1,097 in 2006. Of 8 PP Canada goose flocks monitored in 2006, 3, all in northern Idaho, met the Department's 1991-1995 Waterfowl Management Plan (WMP) active nest or indicated breeding pair objectives based on 3-year averages (2004-2006). Indicated breeding pairs of Rocky Mountain Population (RMP) Canada geese counted on 23 survey areas totaled 1,739 in 2006. Of 13 RMP Canada geese flocks counted with objectives, only 4 are meeting or exceeding the indicated breeding pair objectives based on 3-year averages (2004-2006). After several years of transplanting geese in response to property damage/depredation complaints in the Southwest Region, none were moved in 2005 or 2006. No geese were banded during the reporting period. No early September Canada goose hunts were held in 2006. In the Upper Snake Region, 478 depredating geese were captured. Fifty were provided to food banks and 428 were translocated.

The combination fixed-wing and ground count of sandhill crane in September was not completed in 2006 because of mechanical problems with the aircraft. Controlled hunts were held in early September on sandhill cranes in 3 areas and 236 were harvested.

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

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.

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 1 region in cooperation with the U.S. Fish and Wildlife Service (USFWS).

Management Areas

Management Area 1

The description, season framework, and bag and possession limits of Management Area 1 can be found in Appendix A.

Background and Management Philosophy: Management Area 1 was established in 1985 by emergency order of the Idaho Fish and Game Commission (Commission). This order came as a result of a 1985 USFWS regulation which allowed Indian tribes to have hunting seasons for non-tribal members which differ from the remainder of the state. The first boundaries of Area 1 included only part of the Fort Hall Indian Reservation and were arrived at after negotiations between the Department, USFWS, and Shoshone-Bannock Tribes. The Department did not object to the Tribes' request for a special hunt area because impacts to resident and migrant ducks and law enforcement problems were expected to be minimal. Area 1 was enlarged after the 1985-1986 hunting season to include the entire Fort Hall Indian Reservation and portions of adjacent counties. The purpose was to place the entire reservation under 1 set of rules to avoid disputes between the Tribes and the state over Reservation boundaries.

Several times during the late 1980s and early 1990s, USFWS denied the Department's request to rezone the state. This rezoning would have placed all of northern, central, and southeastern Idaho in 1 area and southwestern Idaho in another. The USFWS's reasons for denial were low duck numbers continent-wide, a fear of increased harvest, and a strict moratorium on rezoning until duck populations rebounded.

Prior to the 1985-1986 hunting season, the state was divided into 2 areas: those counties and parts of counties within the Columbia Basin Mallard Wintering Area (northern and southwestern Idaho), and the remainder of the state (central and southeastern Idaho). Bag and possession limits prior to the 1985-1986 season were 7 and 14, respectively. Beginning in 1985-1986, season length and bag and possession limits were reduced as mandated by USFWS because of poor duck production and recruitment continent-wide resulting from drought and habitat degradation.

Early in 1991, USFWS and Pacific Flyway evaluated the effects of zones on duck harvest. They concluded that zones do not influence harvest and, consequently, the moratorium was lifted on changing zones beginning with the 1991-1992 season. As a result, the Department rezoned the state. It retained Area 1 with its previous boundaries and divided the remainder of the state into 2 zones or management areas (Areas 2 and 3).

In 1997-1998, Areas 2 and 3 were combined and renamed Area 2 through the 2002-2003 season. For historical season framework information, refer to the 2003 version of this report.

For the 2003-2004 season, the Department changed the boundaries for Area 1 to include all of northern, central, and southeastern Idaho. The USFWS offered the same 107-day season as in 2002-2003 with the exception of a 60-day "season within a season" for both pintails and canvasbacks. The Tribes chose to start their season the same day as the rest of Area 1, and the season was 105 days with no split. The 2-day youth waterfowl season was 27-28 September.

For the 2004-2005 season, the Department rezoned the state into 3 Areas. Area 1 included all of northern and central Idaho, and all of southeastern Idaho except for the Fort Hall Reservation. The previous boundaries for Area 1 (Fort Hall Reservation) were renamed Area 3. The USFWS offered the same 107-day season as in 2003-2004 and the same 60-day "season within a season"

for both pintails and canvasbacks. The season was 105 days with no split, and the 2-day youth waterfowl season was 25-26 September.

For the 2005-2006 season, Areas 1 and 3 were combined and renamed Area 1. The USFWS again offered a 107-day season and a 60-day “season within a season” for canvasbacks. The season was 105 days with no split, and the 2-day youth waterfowl season was 24-25 September (Appendix A).

Management Area 2

The description, season framework, and bag and possession limits of Management Area 2 can be found in Appendix A.

Background and Management Philosophy: Management Area 2 was established in 1991 as a result of USFWS lifting its moratorium on zone changes. This area included those counties that generally freeze up early. From 1985-1986 through 1990-1991, this portion of the state was included with south-central and southwestern Idaho because USFWS prohibited more than 2 zones (the Fort Hall area and the remainder of the state). Prior to 1985-1986, much of Area 2 was included in the Columbia Basin Mallard Wintering Area that had a 100-day season and bag and possession limits of 7 and 14, respectively.

Beginning with the 1997-1998 season, Area 2 and Area 3 were combined and renamed Area 2 to simplify the hunting brochure. For historical season framework information, refer to the 2003 version of this report.

For the 2003-2004 season, the Department changed the boundaries for Area 2 to include only southwestern and south-central Idaho. The USFWS offered the same 107-day season as in 2002-2003 with the exception of a 60-day “season within a season” for both pintails and canvasbacks. The season started 1 week later than the rest of the state and was 105 days with no split. The 2-day youth waterfowl season was 27-28 September.

For the 2004-2005 season, the Department rezoned the state into 3 Areas. Area 2 retained the same boundaries as in 2003-2004. The USFWS offered the same 107-day season as in 2003-2004 and the same 60-day “season within a season” for both pintails and canvasbacks. The season was 105 days with no split, and the 2-day youth waterfowl season was 25-26 September.

For the 2005-2006 season, Area 2 remained the same. The USFWS again offered a 107-day season and a 60-day “season within a season” for canvasbacks. The season was 105 days with no split, and the 2-day youth waterfowl season was 24-25 September (Appendix A).

Management Area 3

Background and Management Philosophy: Management Area 3 was established in 1991-1992 as a result of USFWS lifting its moratorium on zone changes. This area included those counties that normally freeze up later than those in Area 2. From 1985-1986 through 1990-1991, this portion of the state was included with north and eastern Idaho because USFWS prohibited more

than 2 zones (the Fort Hall area and the remainder of the state). Prior to 1985-1986, Area 3 was included in the Columbia Basin Mallard Wintering Area which had a 100-day season and bag and possession limits of 7 and 14, respectively.

Beginning with the 1997-1998 season, Area 3 was combined with Area 2 and renamed Area 2 to simplify the hunting brochure and the state was left with only 2 duck management areas.

For the 2004-2005 season, the Department rezoned the state into 3 Areas. The Shoshone-Bannock Tribe's Fort Hall Reservation (historically Area 1) was renamed Area 3. The USFWS offered a 107-day season including a 60-day "season within a season" for both pintails and canvasbacks. The Tribes chose to start their season the same day as newly rezoned Area 1, and the season was 105 days with no split. The 2-day youth waterfowl season was 25-26 September.

For the 2005-2006 season, Areas 1 and 3 were combined and renamed Area 1, so the state was again left with only 2 duck management areas.

Regional Reports

Panhandle Region

Population Surveys: Approximately 85% of over 1,000 wood duck nest boxes located in the Panhandle were available for nesting in 2006. A total of 379 boxes were evaluated. Cavity-nesting ducks (wood ducks, common goldeneye, bufflehead, and hooded mergansers) utilized 157 (41%). Of the 157 nests observed, 128 (82%) successfully hatched at least 1 egg.

Breeding pair/brood duck production surveys were conducted on the Boundary Creek/Smith Creek, McArthur Lake, Pend Oreille, and Coeur d'Alene River WMAs in 2006. Two breeding pair surveys were conducted in May, followed by brood counts conducted in June (once), July (once), and August (once). A total of 667 breeding duck pairs produced 266 broods indicating a 40% success rate.

On the Boundary Creek WMA and Smith Creek property, 54 of 243 waterfowl pairs observed produced broods (22% success). On the McArthur Lake WMA, 83 of 145 waterfowl pairs observed produced broods (57% success). On the Pend Oreille WMA, 83 of 84 waterfowl pairs observed produced broods (99% success). On the Coeur d'Alene River WMA, 46 of 195 observed waterfowl pairs produced broods (24% success). The majority of breeding pairs observed throughout the Panhandle Region were mallards and wood ducks.

Trapping and Transplanting: A total of 1,500 ducks were trapped and banded by Department personnel in the Panhandle Region during summer 2006 (Tables 1 and 2). Mallards comprised 72% 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 14,814 locally-produced ducks have been banded during breeding season at the Boundary Creek, McArthur Lake, Pend Oreille, and Coeur d'Alene River WMAs.

Waterfowl check stations were operated at the Boundary Creek, McArthur Lake, Pend Oreille, and Coeur d'Alene River WMAs on Saturday and Sunday of the 2004 duck season opener. A total of 180 hunters harvested 402 ducks (2.33 ducks/hunter).

Panhandle staff assisted with a statewide avian influenza sampling effort. A total of 267 swabs were collected from trapped and hunter harvested dabbling ducks.

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 the Habitat Improvement Program (HIP), many of these nest boxes are now placed on private lands and contribute to the overall improvement in duck production throughout the region.

Wetland restoration efforts were completed on Boundary Creek WMA in 2002 and water levels attained the maximum possible elevation for the fifth time in 2006. The Boundary Creek WMA was expanded by 623 acres in 2004 by leasing the adjoining Smith Creek Property from Ducks Unlimited. Approximately 150 acres of wetlands on the 623 acres in question were substantially improved in 2006 by connecting them to the Boundary Creek WMA water delivery system. Water levels can now be adjusted to create and maintain desirable wetland conditions. Completion of the referenced wetland developments resulted in the addition of a significant waterfowl breeding area to the Panhandle.

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.

A small breeding population of wood ducks nest in the Clearwater Region. Since 1988, in an attempt to enhance this species' presence, nest boxes have been erected in conjunction with the Department's HIP program. An estimated sixty nest boxes were available in 2005. A poor return on data cards required estimating that 15% were used by wood ducks by past responses to the survey. Use of these wood duck nest boxes has been commonly shared with other non-game species.

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

Management Implications: The development of ponds and shallow water areas through the HIP program has improved local duck nesting in the region, though no production surveys

are conducted to monitor this. 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: No ducks were banded by the Southwest (Nampa) Region during this reporting period.

Habitat Conditions: Precipitation in the Southwest Region was below normal during winter but well above average during spring. 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 the statewide HIP program, it is anticipated that the number of acres of wetland will increase, contributing to the goal of increasing Idaho's resident and wintering duck populations.

Prescribed fire and herbicide is 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 2005-2006 winter and early spring was around average in most major watersheds in the Magic Valley Region; however, precipitation waned

during summer. Nesting conditions near ponds, reservoirs, and canals was fair. Snake River flows were relatively low during nesting season.

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

Management Implications: Although ducks are produced annually on Hagerman, Niagara, Billingsley Creek, Centennial Marsh, and Carey Lake WMAs, most of the region's duck production occurs on canals, small lakes, and stock ponds. Without average to above average precipitation during winter 2006-2007, duck production in 2007 along canals, small lakes, and stock ponds will be very limited. At WMAs where duck production is a priority, breeding pair and brood surveys will be conducted when personnel and budget constraints allow.

Southeast Region

Population Surveys: Duck pair and brood counts were conducted on Sterling WMA during spring and summer 2006, in place of intensive nest searches, to provide information on nesting success.

One hundred sixty-one breeding duck pairs (112 dabblers, 49 divers) were counted during the surveys in April and May. Seventeen broods were counted throughout summer. After applying species observability correction factors (Hammond 1970), total brood estimates were 33.

Corrected nest success for all dabblers was 26%; diving duck success was 9%. Combined nest success for all ducks was estimated to be 20%.

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 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 nest success of waterfowl. Subsequent field observations suggested that mammalian predators began to replace magpies following tree removal. Mammalian predator removal efforts were initiated in 1997.

During 2006, 1,206 trap-nights resulted in the removal of 36 predators, primarily skunks. Predator trapping costs totaled \$3,478.

Other predator management efforts included removal of potential den sites (culverts, brush and junk piles, etc.).

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

Upper Snake Region

Population Surveys: Twenty-nine wood duck nest boxes were checked on Cartier Slough WMA, Gem Lake WHA, and Warm Slough Access Area for use in 2006. About 28% of these boxes showed signs of wood duck use and, in many of these, there were signs of dump-nest use. Other species, especially owl, also use the boxes.

Limited waterfowl population and brood surveys were conducted on Deer Parks WMU during 2006. The surveys were conducted monthly throughout the year at survey points as determined in the Deer Parks WMU monitoring plan and on all waterways visible from upland viewpoints. Surveys occurred twice per month during March-June. All waterfowl species, sexes, and groupings were recorded. During April and May, breeding pairs and broods were recorded, as well as young per brood and age class of brood. Beginning in August, waterfowl surveys returned to once per month. Brood numbers were too low to accurately determine productivity.

During the April-June time period, American Coot were the most abundant species of duck (605), followed by mallard duck (489), green-winged teal (421), ruddy duck (269), blue-winged teal (141), northern pintail (99), and wood duck (81). Other species observed in lesser abundance included American widgeon, canvasback, common goldeneye, common merganser, double-crested cormorant, hooded merganser, lesser scaup, redhead duck, snow goose, trumpeter swan, and tundra swan.

The number of ducks observed during the July-September survey period was significantly lower than the April-June survey period, but relative species abundance was similar. The difference in number of ducks observed between the April-June period and the July-September period may have been due to duck movements, differences in visibility, and/or difference in survey effort, but not mortality since no mortality was observed.

Waterfowl brood counts were conducted during July-September 2006. Surveys were conducted along the Butte Slough, Market Lake-Butte Canal and along the Snake River and slack water of the Snake River. During these surveys, 24 American coot broods with 45 juveniles, 8 mallard duck broods with 48 ducklings, 4 northern pintail broods with 16 ducklings, 7 ruddy duck broods with 23 ducklings, and 4 cinnamon teal broods with 20 ducklings were observed.

Banding: Eighty ducks were captured and sampled for H5N1 highly pathogenic virus at Mud Lake WMA during September 2006. Seventy-nine of these ducks were also banded and released on site; 1 mallard died while in the trap (Tables 1 and 2). Laboratory analysis did not detect any highly pathogenic H5N1 virus in any of the ducks sampled.

Climatic Conditions: Above normal snow accumulation last winter and near normal precipitation during spring provided improved nesting conditions, and higher water table levels resulted in improved brood conditions over the past several years. These conditions provide improved production for both over-water and upland nesters, especially on Market Lake WMA and Camas National Wildlife Refuge (NWR).

Habitat Conditions: Most ducks in the region are produced on Market Lake and Mud Lake WMAs and Camas NWR. 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 Cartier Slough WMA, Deer Parks WMA, and the Warm Slough Access Area, the land ownership is a mix of private and BLM. Market Lake, Mud Lake, and Sand Creek WMAs have limited wood duck nesting habitat around the edges of marshes and ponds.

Habitat Improvements: On Market Lake WMA, 120 acres were farmed during 2006, and 61 of these acres was seeded to alfalfa and left standing until after 20 June to provide waterfowl and upland bird nesting habitat. On the south Ag Fields, 5 acres of a mixture of millet/sunflower/wheat, 26 acres of wheat and 12 acres of corn planted in 2005 were left standing for waterfowl and upland bird habitat. On the North Ag fields, 6 acres of oats, 5 acres of corn, and 5 acres of corn/millet planted in 2005 were left standing for waterfowl and upland bird nesting habitat.

On Mud Lake WMA, approximately 30 acres were planted to food plots for waterfowl and upland game during 2006.

On Deer Parks WMU, 10 existing wood duck nest boxes were maintained along the Snake River and south pasture slough, and an additional 6 new nest boxes were installed along the Snake River and Butte Slough during 2006.

Habitat management projects on Deer Parks WMU included 317 acres that were share-cropped with a local farmer. The Department's share (34%) was traded back to the share cropper for an equal value of custom farming and/or irrigation pivot repair. Another 5 food plots totaling 135 acres were planted to wheat crops during 2006 for waterfowl and upland bird habitat, and 16 acres of dwarf corn and 8 acres of oats were seeded and left standing in another irrigated field for wildlife food and cover.

On Chester Wetlands WMA, an old power line that is no longer used was removed to eliminate raptor perches over waterfowl nesting habitat.

Trapping and Transplanting: No ducks were trapped for transplanting in the Upper Snake Region during this reporting period.

Waterfowl Die-offs: The only major waterfowl die-off that occurred in Upper Snake Region during this reporting period primarily involved snow and Ross's geese. A discussion of this die-off is reported in the goose section of this report.

Depredation: The region received 3 depredation complaints for waterfowl damaging new seedings in late summer-fall 2006. All complaints were from landowners in Bonneville County. Zon guns were provided to the complainants to scare the waterfowl off the new seedings until they established.

Predator Control: The Department did no predator removal for waterfowl during 2006; 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. Mayfield nest success estimates at Market Lake WMA were around 20% each year that surveys were done. This is below the objective of 30% for the WMA. Nest predation appeared to be caused by both avian and mammalian predators. Mammalian predation appeared higher on nests in large *Juncus* habitat blocks while avian predation appeared higher in fragmented cattail and hardstem bulrush habitat patches.

Results from the nest searches and nest success estimates on Market Lake suggest that ducks are not using some plant communities for nesting. Very few nests were found in the old *Juncus* meadows. Reseeding at least some of these communities to cover providing more structure (e.g., a rank bunchgrass) should be considered and the areas then monitored for nest attempts and success.

Duck nest surveys conducted on Mud Lake WMA generally indicated above 30% nesting success.

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)

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

Management Area 1

The description, season framework, and bag and possession limits of Management Area 1 can be found in Appendix A.

Background and Management Philosophy: Management Area 1 includes both Pacific Population (PP) and Rocky Mountain Population (RMP) Canada geese (Figure 1). The boundary between the 2 populations is U.S. Highway 93 from the Idaho-Nevada border to Shoshone, State Highway 75 from Shoshone to Challis, and U.S. Highway 93 from Challis to the Montana-Idaho border. The Pacific Population occurs west of this boundary; the Rocky Mountain Population occurs to the east.

Area 1 was created in 1990 to implement changes in seasons, limits, and hunt area boundaries identified in the 1991-1995 Waterfowl Management Plan. Area 1 originally included only Benewah, Bonner, Boundary, Kootenai, and Shoshone counties. In 1993, the counties of Clearwater, Idaho, Latah, Lewis, and Nez Perce were added to Area 1 to take advantage of an increasing resident Canada goose flock.

In 1998, Bear Lake, Bonneville, Butte, Caribou, Clark, Custer, Franklin, Fremont, Jefferson, Lemhi, Madison, Oneida, and Teton counties were included in Area 1 to simplify the hunting brochure.

In 2003, Area 1 was expanded to include Adams and Valley counties and all of Area 3 (the Fort Hall Indian Reservation).

The 1990-1991 goose season opened 2 weeks prior to duck season. The 1991-1992 goose season opened the same day as duck season. The 1992-1993 through 1996-1997 goose seasons opened 1 week before duck season. The 1997-1998 through 2001-2002 goose seasons opened the same

day as duck season. The 2002-2003 goose season opened 1 week after duck season. Beginning in 2003-2004, goose and duck seasons have opened on the same day (Appendix A).

Management Area 2

The description, season framework, and bag and possession limits of Management Area 2 can be found in Appendix A.

Background and Management Philosophy: Management Area 2 (southwestern Idaho) contains PP Canada geese (Figure 1). Prior to the 1991-1992 season, southwestern Idaho (part of the Southwest Region) was in Area 3 and had restricted limits for part of the season to protect local breeding flocks. For the 1991-1992 season, southwestern Idaho was combined with the rest of central Idaho (Clearwater Region; the remainder of Southwest Region; and parts of Magic Valley, Southeast, Upper Snake, and Salmon regions) to create the new Area 2. This was possible because southwestern Idaho flocks had exceeded breeding pair objectives, and it was determined they could sustain the additional harvest resulting from a 93-day season and bag and possession limits of 2 and 4, respectively, season-long. The season and limits were the maximum allowed by federal regulations for southwestern Idaho but not for Clearwater Region.

In 1992-1993, Area 2 was reduced slightly in size to simplify the boundary between Area 2 and Area 4. This was accomplished by placing all of Custer and Lemhi counties in Area 4, rather than splitting the counties on Highways 75 and 93. For the 1993-1994 season, Area 2 was reduced further by placing 5 northern counties (Clearwater, Idaho, Latah, Lewis, and Nez Perce) in the more liberal Area 1 to take advantage of an increasing local flock of Canada geese.

For the 1994-1995 season, federal regulations allowed for a 100-day season and bag and possession limits of 4 and 8, respectively. The Department selected the 100-day season to take advantage of the healthy local population and strong migrant population but chose bag and possession limits of 3 and 6 geese, respectively, instead of the maximum allowed over concerns that a daily bag of 4 would result in an over-harvest of local geese. In 1998-1999, the Department added south-central Idaho (Area 3 from 1991-1992 through 1997-1998) to Area 2 to simplify the hunting rules and hunting brochure.

Beginning in 2002-2003, the Department split Area 2 back into 2 separate areas (Areas 2 and 4 for 2002-2003; Areas 2 and 3 for 2003-2004 and 2004-2005) and raised the bag and possession limits for Area 2 to 4 and 8 geese, respectively. In 2003, Area 2 was reduced and Adams and Valley counties were added to Area 1.

In 2005, Areas 2 and 3 were combined and the state was left with only 2 goose management areas. Area 2 currently includes all of Washington, Payette, Gem, Boise, Canyon, Ada, Owyhee, Elmore, Camas, Gooding, Twin Falls, Blaine, Lincoln, Jerome, Cassia, and Minidoka counties and a portion of Power County.

In 1990-1991, the goose season in Area 2 opened 2 weeks prior to duck season. The 1991-1992 goose season opened the same day as duck season in the northern portion and 1 week earlier than duck season in the southern portion. For the 1992-1993 through 1996-1997 seasons, goose

season opened 1 week prior to duck season. The 1997-1998 through 2001-2002 goose and duck seasons opened on the same day. For 2002-2003, the goose season opened 1 week after duck season. Beginning in 2003-2004, the seasons have opened on the same day (Appendix A).

Management Area 3

Background and Management Philosophy: Management Area 3 (south-central Idaho) has been under restrictive harvest management (more conservative than allowed by federal regulations) for many years to minimize the harvest of local geese. Seasons have had delayed opening dates and/or reduced bag and possession limits for all or part of the season. Management Area 3 was Management Area 4 prior to the 1991-1992 season. It includes both PP and RMP geese (Figure 1). The area was enlarged slightly for the 1991-1992 season to include parts of Camas and Elmore counties and an additional portion of Blaine County because of low goose production. The area was enlarged again in 1992-1993 to include all of Blaine and Camas counties because of low goose production.

The 1990-1991 season was the first season for many years that ran the maximum of 93 days allowed by federal regulations. From 1994-1995 through 1997-1998, seasons were extended to 100 days, the maximum allowed, but restrictive limits (2 dark geese) were retained to protect local flocks.

For 1998-1999 through 2001-2002, the goose daily limit was increased to 3 of any kind and Area 3 was combined with Area 2 and renamed Area 2 to simplify hunting rules and the hunting brochure.

For the 2002-2003 season, zones were changed again and former Area 3 (prior to 1998-1999) became Area 4 with bag and possession limits of 3 and 6, respectively. For the 2003-2004 and 2004-2005 seasons, the Area was renamed Area 3. In 2005, Areas 2 and 3 were combined and the state was left with only 2 goose management areas.

The 1990-1991 goose season opened 2 weeks prior to duck season. Beginning in 1991-1992, goose seasons in Area 3 opened 1 week prior to duck season. The 1997-1998 through 2001-2002 goose and duck seasons opened on the same day. The 2002-2003 goose season opened 1 week after duck season. The seasons have opened on the same day since 2003-2004.

Management Area 4

Background and Management Philosophy: Management Area 4 was created in 1991-1992 to take advantage of increased limits and a 93-day season allowed by federal regulations. Bag and possession limits were increased from 2 and 4, respectively, to 3 and 6, respectively, for 1991-1992 due to increasing numbers of geese throughout the population. Beginning in 1993-1994, the season was increased to 100 days, the maximum allowed by federal regulations. Beginning in 1995-1996, daily bag and possession limits were increased to 4 and 8, respectively.

Prior to 1991-1992, Area 4 was combined with central Idaho to form Area 2. Goose seasons for Area 4 have always been set to take full advantage of all days and maximum limits allowed by

federal regulations. The 1990-1991 goose season in eastern Idaho opened 2 weeks prior to duck season. In 1991-1992, the Area 4 goose season opened the same day as duck season. For 1992-1993 through 1996-1997, the goose season opened 1 week prior to duck season. The 1997-1998 goose and duck seasons opened on the same day.

In 1998-1999, Area 1 (north Idaho) and Area 4 (central and eastern Idaho) were combined to simplify the hunting brochure. The number designation for the area was changed to Area 1 and the state was left with only 3 goose management areas through the 2001-2002 season. For the 2002-2003 season, the Department split Area 2 into 2 separate areas and designated south-central Idaho as Area 4. Bag and possession limits were 3 and 6, respectively.

In 2003, the Department combined Areas 1 and 3 (now called Area 1) and Area 4 was renamed Area 3. The state hasn't had an Area 4 since 2003.

Management Area 5

Background and Management Philosophy: Management Area 5 was created in 1987 to conform with Area 1 for ducks. This was made necessary because the Shoshone-Bannock Indian Tribes requested a goose hunting season for non-tribal members which differed from the rest of the state. See "Ducks, Management Area 1" for additional information. The Department has not objected to the Tribes' request for a special goose season because their impacts on local and migrant geese and law enforcement problems have been minimal.

Area 5 (the Fort Hall Indian Reservation) remained in place through the 1997-1998 season. In 1998, the Department combined areas and Area 5 was renamed Area 3 through the 2002-2003 season. In 2003, the Department combined the Fort Hall Indian Reservation with Area 1. The state hasn't had an Area 5 since 1998.

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 2006 (Figure 2). A total of 172 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, and the number of goose nests declined to 24 and stayed suppressed. In 2001, only 12 nests were observed. A goose pasture renovation was completed in 2001 to stimulate production. Production subsequently increased to 33 nests in 2003 and 61 nests in 2004. Production declined to 30 nests in 2005 and increased to 46 nests in 2006 (Table 3).

The Coeur d'Alene River WMA supported >10 nest 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. The number of nests subsequently increased to 91 in 2006 (Table 4).

The Pend Oreille WMA consists of scattered parcels along Pend Oreille Lake and the Pend Oreille River. A total of 39 goose nests were located in 2006.

Five Canada goose nests were located on the Boundary Creek WMA during 2006. However, additional production was evident. A gang brood 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: No Canada geese were trapped or transplanted in the Panhandle Region during the reporting period.

Management Implications: Canada goose nesting initially increased in the Panhandle Region due to the placement of man-made nest structures and a gosling transplant program; however, production has declined noticeably in the past 5 years. This is partially attributable to a lack of platform maintenance. An increased emphasis was placed on maintaining existing nest structures in 2005. A response to improved platform maintenance was noticeable in 2006.

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 5-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%.

The number of active nests on the Coeur d'Alene River and Pend Oreille WMAs currently exceeds the Department's 1991-1995 WMP objective; active nests on the McArthur Lake WMA and Pend Oreille WMA are below objective levels (Connelly and Wackenhut 1990).

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 (Figure 2). Their nesting success has been enhanced in this area with man-made nest structures placed on islands in the 1980s. Numbers of active nests in this area have been counted consistently since 1981, with improvements in data quality beginning in 1985. The survey to determine use of man-made nest structures was not conducted this year due to personnel shift to another project. There are approximately 30 structures remaining on the islands. Structure use has been declining but is usually 25-30%. The total number of nest structures has slowly declined, as those found unserviceable have been removed. These structures are in close proximity to Lewiston and will not be replaced. Natural ground nesting on the islands will be encouraged. Eight years of 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 Manns Lake, Middle Fork Clearwater River, Palouse River, Potlatch River, and Red River. This survey was not conducted this year, as returns the last 2 years were very low.

Consistent data collection of goose nest structure use in the Clearwater Region did not begin until 1988. The number of structures available to geese has increased dramatically since that time, due primarily to the influence of the Department's HIP program and cooperating landowners. Over 50 nest structures issued are still available for geese. Use of available structures should be comparable from 2004 to 2005, with landowners reporting 50-60% use over the last 5 years.

Depredation: The number of goose complaints has decreased over the reporting period. Only 1 call was taken involving Canada geese. This was a report of a large winter flock grazing in newly seeded winter wheat in the Genesee area. 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 in during the reporting period.

Management Studies: Continued 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 the increasing Canada goose numbers in the Lewiston-Clarkston area, the Urban Goose Task Force continues working together to apply management options available to control local goose numbers. The managed goose hunts have helped with harvesting some locally raised geese and hazing geese out of these problem areas, while providing a unique hunting opportunity for sportsmen. Deterrent measures such as hazing and vegetation manipulation have been conducted by private businesses, state, and federal agencies in the area.

The Idaho Department of Parks and Recreation (IDPR) allowed a Special Permit goose hunt in the southern portion of Hell's Gate State Park during the regular 2004-2005 season. Access and permit issuance was administered by IDPR and hunting was limited to 1 party of 6 hunters per day. The hunt was allowed from 25 November 2004 to 10 January 2005. No harvest data was provided, but hunter participation and success was reported to be low.

During the 2004-2005 season, several managed goose hunts were initiated to target urban geese and areas of chronic crop damage. The Department administered 2 one-day supervised goose hunts in December along portions of the Clearwater and Snake rivers within Lewiston and Clarkston city limits. The second hunt day dedicated 1 blind to youth waterfowl hunters. Approximately 120 geese were harvested within these areas traditionally closed to hunting. The hunting pressure resulted in additional goose harvest in other areas open to hunting in the valley.

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 1 island shared by both Washington and Idaho. These sites were determined to have heavy nesting concentrations due to their location within the city. Much of the local goose problem is tied to these areas. The USACE treated 30 nests in April 2004 and 60 nests in April 2005 (approximately 180 and 360 eggs, respectively).

Southwest (Nampa) Region

Population Surveys: The breeding pair survey for geese was flown in April 2006. The 3-year average (791) is below the minimum goal of 900 breeding pairs for the second consecutive year. A total of 1,935 Canada geese and 858 breeding pairs were seen (Tables 3 and 4) in addition to large flocks of white-fronted geese (2,030 birds) and snow geese (370).

Climatic Conditions: Precipitation in the Southwest (Nampa) Region was below normal during the winter of 2005-2006. However, spring rainfall was above average resulting in flooding and likely led to the inundation and subsequent abandonment of ground nests for some local Canada geese nesting along the river corridors and islands.

Trapping and Transplanting: During summer 2006, no local geese (goslings or adults) were moved out of the urban area of Boise.

Management Implications: The current 3-year average (of highest counts) of Canada goose breeding pairs along the Payette and Snake Rivers (791), is below the minimum pair objectives (900) identified in the 1991-1995 WMP (Connelly and Wackenhut 1990; Figure 2) for the second consecutive year. Moreover, many of the pairs counted did not appear to be nesting, possibly as a result of losing nests from flood events prior to the survey, particularly on the Payette River. The Southwest Region will continue cautiously with liberalized seasons and limits.

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 58 geese was observed and 35 indicated pairs were noted. This is only the second consecutive year of data collection on this body of water and a 3-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 2006.

Management Implications: The 1991-1995 WMP directs the Department to reduce the harvest when the 3-year average falls below minimum objectives. Monitoring criteria for the McCall sub-region was 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: A fixed-wing aerial survey of Canada goose breeding pairs was conducted in May 2006. The number of indicated pairs of PP geese on the Camas Prairie (Survey Area 12; Figure 2) decreased 40% from 2004 levels while the Snake River below U.S. Highway 93 (Survey Area 13; Figure 2) decreased 85% (Tables 3 and 4). Total geese counted on the Camas Prairie and Lower Snake River decreased 69% over 2004 levels.

For the RMP geese between American Falls Dam and U.S. Highway 93 (Survey Areas 14 and 15; Figure 2) on the Snake River, indicated pairs in 2006 decreased 15% while total geese decreased 8% from 2004 levels.

None of the 4 survey areas in Magic Valley Region met either the minimum breeding pair or total geese objectives in 2006 as outlined in the 1991-1995 WMP (Table 3).

Use of man-made nest structures by Canada geese is monitored during the annual breeding pair survey. During the May 2006 survey, geese were observed using 96 of 180 structures. Geese on the Camas Prairie used man-made structures more frequently than did geese on the Snake River.

Habitat Conditions: Precipitation during the 2005-2006 winter and spring was average in all major watersheds in Magic Valley Region. Nesting conditions near ponds, reservoirs, and canals were good as many of these areas soaked up the precipitation and did not provide

much in the way of additional habitat. This made Camas Prairie surveys more difficult, as the entire prairie was flooded and provided goose habitat. 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 2006.

Management Implications: None of the survey areas in the region met both minimum breeding pair and total geese criteria in 2006. Increased bag limits in 1998, poor nesting conditions since 2001, and reduced availability of artificial nesting structures have contributed to the survey areas not meeting objective. Goose breeding pair and total geese objectives can be met in the region if goose limits are reduced and goose nest structures are maintained. Many of the region's structures 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.

Southeast Region

Population Surveys: Aerial spring pair surveys of RMP Canada geese showed a 27% increase from 2005 to 2006 in the number of indicated pairs counted (Tables 3 and 4). Numbers of both pairs and total geese were higher than the 2004-2006 averages. Current 3-year averages for breeding pair counts and total geese are generally below management objectives (Table 3).

Early September controlled hunts were held in 1996 and 1997 to address sandhill crane and goose depredation in areas around Chesterfield, Grays Lake, and Blackfoot Reservoir. Because goose numbers have generally been below objectives, no early September hunts for geese have been offered since that time.

Trapping and Transplanting: No Canada geese were trapped or transplanted in the Southeast Region in 2006.

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.

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 3 and 4).

Indicated pairs are below management plan objective for Market Lake WMA, Mud Lake WMA, Camas NWR, the Teton Basin, 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.

On Market Lake WMA, 15 goose platforms were surveyed for use in 2006. Of these 15 platforms, 8 successfully hatched a brood, 1 was used but failed to produce a brood, and the remaining 6 were unused in 2006.

Limited ground surveys for Canada geese were conducted on Deer Parks WMU in 2006. Surveys were conducted once monthly on Butte Slough, the Butte Market Lake Canal, and all backwaters and eddies of the Snake River visible from land, as well as all agricultural fields to determine numbers of Canada geese present and their distribution. Two hundred sixteen Canada geese were counted during the April-June survey period, and 32 during the July-September survey period. During the July-September survey period, 15 Canada goose broods with 138 goslings were observed on the Butte Slough, Market Lake-Butte Canal, and along the Snake River and slack water of the Snake River.

Climatic Conditions: Above normal snow accumulation during the 2006 winter and near normal precipitation during spring provided improved nesting conditions, and higher water table levels resulted in improved brood conditions over the past several years.

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 reduces goose production due to nest flooding most years.

Depredation: The region again received complaints of geese depredating on malt barley around Gem Lake in 2006. The Department received permission from the U.S. Fish and Wildlife Service to harvest 50 adult geese and relocate the other geese. Four hundred seventy-two (238 adults and 184 goslings) geese were captured. Fifty of the adults were

harvested and provided to needy people. The rest of the adults were relocated to the Fort Hall Bottoms and the goslings were relocated to Mud Lake WMA. None of the relocated geese were banded.

The region also received 3 depredation complaints for waterfowl damaging new seedings in late summer-fall 2006. All complaints were from landowners in Bonneville County. Zon guns were provided to the complainants to scare the waterfowl off the new seedings until they established.

Trapping and Transplanting: Four hundred and twenty-two were captured around Gem Lake in June 2006 to address the depredation problem there. One hundred eighty-eight adult geese were relocated to Fort Hall Bottoms and 184 goslings were relocated to Mud Lake WMA.

Snow and Ross's goose die-off: A die-off of migrating snow and Ross's geese started in late March and continued through mid-April on Camas NWR, Mud Lake WMA, and Market Lake WMA. Approximately 500 waterfowl were picked up from these 3 areas. The heaviest losses were at Mud Lake WMA where 284 snow and Ross's geese were picked up and Camas NWR where 197 snow and Ross's geese were picked up. In addition to the snow and Ross's geese, 1 Canada goose and 1 trumpeter swan were also picked up at Mud Lake WMA. Thirty-three snow geese were picked up on Market Lake WMA.

The cause of the mortalities was unknown. It was first thought that the mortality was caused by avian cholera because past heavy waterfowl losses at this time of year have been cholera-caused. However, necropsies of birds sent to the National Wildlife Health Lab in Madison, Wisconsin, determined that the deaths were not cholera-related. A definite cause was not determined, but it was suspected that the geese had fed on spoiled grain somewhere on the migration journey before arriving in east Idaho.

Habitat Improvements: Thirteen goose platforms were serviced and 2 new goose platforms were constructed on Market Lake WMA in 2006. Approximately 40 goose platforms were serviced on Mud Lake WMA in early spring before the 2006 nesting season. Three new goose platforms were installed on the Fox Creek access in Teton County which will make 6 platforms available for geese in 2007. Platforms were checked on Cartier Slough WMA, Gem State mitigation area, Deer Parks WMU, and Warm Slough Access for use, and these platforms had 79% use. In the Teton Valley, 5 platforms were checked with 80% use. Thirty-five goose platforms checked on Island Park Reservoir had 94% use.

Management Implications: Goose pair counts were conducted on 7 production areas in 2006 (Figure 2). Of the 7 areas monitored for indicated breeding pairs, all but the Island Park Reservoir area was below 1991-1995 WMP objectives (Table 3). Those that were below objective include Market Lake WMA, Mud Lake WMA, Camas NWR, Teton Basin, 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 U. S. Fish and wildlife Service to harvest 50 adult geese and relocate the other geese. However, by the time the geese become flightless and can be captured, much damage has already occurred to the barley. The Department has requested permission from the U.S. Fish and Wildlife Service to addle eggs in the future to reduce the goose population nesting around the lake to better address the problem.

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 in mid-April to estimate breeding population trends of RMP Canada geese in 2006. A total of 328 indicated pairs and 996 total geese were counted (Tables 3 and 4). 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 populations 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 3 regions were initiated in 1995 to document total sandhill crane numbers, arrival dates, distribution, and age ratios. The description, season framework, and bag and possession limits for 2005 can be found in Appendix A.

Background and Management Philosophy: RMP greater sandhill cranes have been damaging crops in eastern Idaho for decades. Early season crop damage occurs primarily in spring and summer, but the most significant sandhill crane crop damage occurs during the late summer and early fall when the sandhill cranes begin staging for fall migration. Fields damaged are those generally closest to night roosts and they are damaged repeatedly year after year.

In 1996, the Commission adopted rules that changed the classification of sandhill cranes from migratory non-game birds to migratory game birds and directed the Department to obtain Pacific Flyway Council and USFWS approval for an experimental controlled hunt in 3 areas. The Council approved a 20-bird harvest allocation for Idaho and controlled hunts by “sportsmen only” using a random method of issuing permits. The Commission subsequently adopted rules establishing controlled hunts in 3 areas (Grays Lake Outlet area in Bonneville County, Blackfoot Reservoir area in Caribou County, and the Teton River area in Teton County) with a total of 30 permits.

In 1997, the Commission adopted rules establishing 7 controlled hunts in the same hunt areas created in 1996 (Grays Lake Outlet, 3 hunts, 15 permits in each; Blackfoot Reservoir area, 3 hunts, 40 permits in each; Teton River, 1 hunt, 50 permits). The 215 permits were expected to harvest 148 sandhill cranes, the entire Idaho harvest allocation authorized by the Pacific Flyway and USFWS.

In 1998, the Commission adopted rules that abolished the hunt in the Grays Lake Outlet area, created 7 hunts with 30 permits each in the Blackfoot Reservoir area and enlarged the area to include new damage complaints, and reauthorized the Teton County hunt with 50 permits. The 260 permits were expected to harvest 170 sandhill cranes, the entire allocation for Idaho.

In 1999, the Commission authorized 7 hunts with 47 permits each in the Blackfoot Reservoir area and enlarged it again to include a portion of Bear Lake County (Hunt Area 1). They also reauthorized the Teton County hunt with 75 permits (Hunt Area 2), and created 1 new hunt with 50 permits in a portion of Fremont County (Hunt Area 3). Of the 454 permits available to hunters in 1999, 121 permits were left after the drawing, and an unknown number of permits were purchased as leftovers.

In 2000, the Commission reauthorized 7 hunts with 50 permits each in Hunt Area 1, 2 hunts with 50 permits each in Hunt Area 2, and 2 hunts with 50 permits each in Hunt Area 3. There were 550 permits available in 2000; 299 permits were left after the drawing, and only 95 of those were purchased as leftovers.

In 2001, the Commission authorized 5 hunts in Hunt Area 1 including 2 hunts with 100 permits each and 3 hunts with 50 permits each. They also reauthorized 2 hunts with 50 permits each in Hunt Area 2 and 2 hunts with 50 permits each in Hunt Area 3. Of the 550 permits available in 2001, 255 permits were left over. Due to the decline of hunters in 2000 and 2001, the Commission authorized the sale of leftover permits to include those who had already drawn a permit and raised the season limit per hunter from 1 crane to 9 cranes with a limit of 2 per day. As a result, 215 of the 255 leftover permits were purchased in 2001.

In 2002, the Commission enlarged Hunt Area 1 to include all of Bear Lake County and authorized 2 hunts with 80 permits each, 2 hunts with 35 permits each, and 1 hunt with 33 permits. The Commission enlarged Hunt Area 2 to include all of Teton County and authorized 1 hunt with 40 permits and 1 hunt with 35 permits. They also enlarged Hunt Area 3 to include all of Fremont County and authorized 1 hunt with 40 permits and 1 hunt with 35 permits. Of the 413 permits available in 2002, 381 were issued. The daily limit per hunter was 2 cranes with a season limit of 9 cranes.

In 2003, the Commission authorized 5 hunts in Hunt Area 1 including 1 hunt with 65 permits, 1 hunt with 60 permits, 1 hunt with 35 permits, and 2 hunts with 25 permits each. They also authorized 2 hunts with 30 permits each in Hunt Area 2 and 2 hunts with 30 permits each in Hunt Area 3. Of the 330 permits available in 2003, 265 were issued. The daily and season limits remained the same.

In 2004, the Commission authorized 1 hunt in Hunt Area 1 with 165 permits. They also authorized 2 hunts with 24 permits each in Hunt Area 2 and 2 hunts with 24 permits each in Hunt Area 3. Of the 261 permits available in 2004, 214 were issued. The daily and season limits remained the same.

In 2005, the Commission authorized 1 hunt in Hunt Area 1 with 300 permits, 2 hunts in Area 2 with 35 permits each, and 2 hunts in Area 3 with 35 permits each. Of the 440 available permits, 369 were issued. The daily and season limits remained the same.

In 2006, the Commission authorized 1 hunt in Hunt Area 1 with 300 permits, 2 hunts in Area 2 with 50 permits each, and 2 hunts in Area 3 with 50 permits each. Of the 500 available permits, 398 were issued. The daily and season limits remained the same.

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: Surveys for sandhill cranes were not conducted in the Magic Valley Region during this reporting period. Five hundred sixty-seven cranes were observed in 2005, a 136% increase from 2004 (Table 6).

Southeast Region

Population Surveys: Greater sandhill cranes nest in several areas in Southeast Region. Large concentrations of cranes are present in several areas in the eastern part of the region prior to fall migration. Sandhill cranes are counted incidental to spring goose breeding pair surveys; however, the value of that data as an index to population is unknown (Table 6).

In 1995-1997, Department personnel 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 5). 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. The survey was not conducted in 2006 due to aircraft problems.

Harvest Characteristics: Harvest allocation and permit numbers (300) for 2006 were unchanged from 2005 levels. Sandhill crane harvest within the Southeast Region was estimated at 132 birds by 119 hunters (90% success rate of tag holders who actually hunted, and who harvested at least 1 bird) in 293 hunter days (Table 7). 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: Fall pre-migration staging area sandhill crane surveys were conducted from 1996-2002 to implement a sandhill crane hunting season in Fremont and Teton counties (Table 6). However, these surveys were discontinued in 2003 because they were no longer needed. The combination fixed-wing and ground count of sandhill crane in September was not completed this year because of mechanical problems with the aircraft. The ground count of sandhill crane for Market Lake WMA, Mud Lake WMA, and Camas NWR are presented in Table 5. There is no value in trying to compare this year's count with previous years for these localized areas because of variation in sandhill crane distribution, weather conditions, and food sources between years.

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. Two hunts with 50 permits each were available for the Fremont County area and 2 hunts with 50 permits each were also available for the Teton County area. Each hunter was allowed to purchase up to 9 permits for the season and the daily bag limit was 2 cranes. Eighty-two permits were actually picked up by hunters for the 2 Fremont County hunts and 92 permits were picked up by hunters for the 2 Teton County hunts (Table 7).

Controlled hunts in the Fremont County area had an estimated 66 hunters participate in the sandhill crane hunt with an estimated 52% success rate per permit issued (Table 7). Estimated harvest for the Fremont County area was 43 sandhill crane. Adult crane made up 93% of the total known-age harvest (Table 8).

The Teton County area had an estimated 57 hunters participate in the sandhill crane hunt with an estimated 66% success rate per permit issued. Estimated harvest for the Teton County area was 61 sandhill crane (Table 7). Adult crane made up 69% of the total known-age harvest (Table 8).

Climatic Conditions: Above normal snow accumulation last winter and near normal precipitation during spring provided improved nesting conditions, and higher water table levels resulted in improved brood conditions over the past several years.

Depredation: The region received no sandhill depredation complaints during 2006.

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. Two controlled hunts with a total of 100 permits were authorized in the Teton County area in 2006, resulting in an estimated harvest of 61 sandhill crane. Two controlled hunts with a total of 100 permits were also authorized for the Fremont County area in 2006, resulting in an estimated harvest of 43 sandhill crane.

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 Non-game 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 the attempt was brief and unsuccessful.

Successful nesting by trumpeter swans was also documented in 1995 and 1996 at the Department's Highway 46 Pond near Fairfield in Camas County. During 2002, 1 adult trumpeter utilized this pond for the entire summer. Also in 2002, a pair of trumpeter swans successfully nested and reared 3 juveniles on a private pond approximately 6 miles southeast of the Highway 46 Pond.

During August 2006, Department staff found a pair of adult trumpeter swans with 3 cygnets on Spring Creek Reservoir in Camas County.

Upper Snake Region

Aerial and ground surveys were conducted in Upper Snake Region to monitor nesting trumpeter swans and wetlands. During 2006, there were 28 occupied nesting territories and 23 nesting pairs. At least 39 cygnets hatched from 11 broods. This was Idaho's fourth highest annual cygnet production. September aerial surveys (USFWS) over southeast Idaho showed a slight increase in swan numbers due to an increase in cygnets and non-breeders.

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.

Regional Reports

Magic Valley Region

Tundra swans migrate through the region in spring and fall, and some winter on the Snake River, but none are known to nest in the region. The region does no monitoring of tundra swans.

Upper Snake Region

Tundra swans migrate through the region in spring and fall, and some winter on the North Fork Snake River and Teton River, but none are known to nest in the region. The region does no monitoring of tundra swans during summer. Counts are made incidental to other waterfowl during the mid-winter waterfowl count and the mid-winter tri-state trumpeter swan survey; these counts are reported in the winter waterfowl progress report.

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 an important game bird in Idaho and because it benefits indirectly from other wildlife management programs.

COMMON SNIPE

The Department's 1991-1995 WMP goals for the common snipe are to 1) maintain Idaho's common 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 common snipe is not an important 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.
- HAMMOND, M. C. 1970. Waterfowl brood survey manual. U.S. Fish and Wildlife Service Report No. 6.
- IDAHO DEPARTMENT OF FISH AND GAME. 1996. Recommendations for reducing crop damage by greater sandhill cranes in eastern Idaho. Sandhill Crane Work Group. Unpublished Report, Idaho Department of Fish and Game, Boise, Idaho, USA.
- SUBCOMMITTEE ON ROCKY MOUNTAIN GREATER SANDHILL CRANES. 1997. Management plan of the Pacific and Central Flyways for the Rocky Mountain population of greater sandhill cranes. Joint subcommittee, Rocky Mountain population greater sandhill cranes Pacific Flyway study committee, Central Flyway technical committee, and central management unit technical committee, U.S. Fish and Wildlife Service Migratory Bird Management Office, Portland, Oregon, USA.

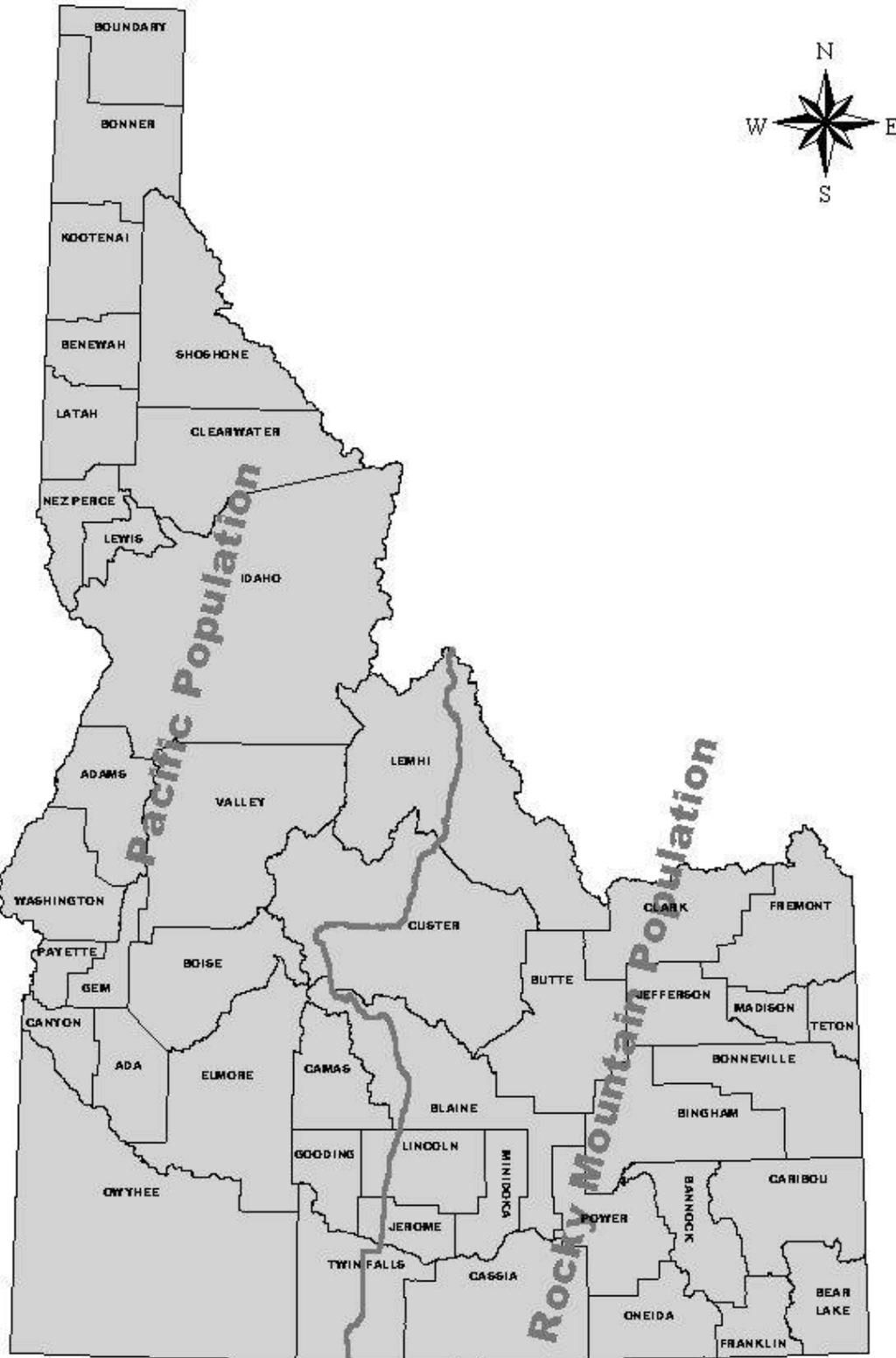


Figure 1. Distribution of Pacific and Rocky Mountain Canada geese populations within Idaho.

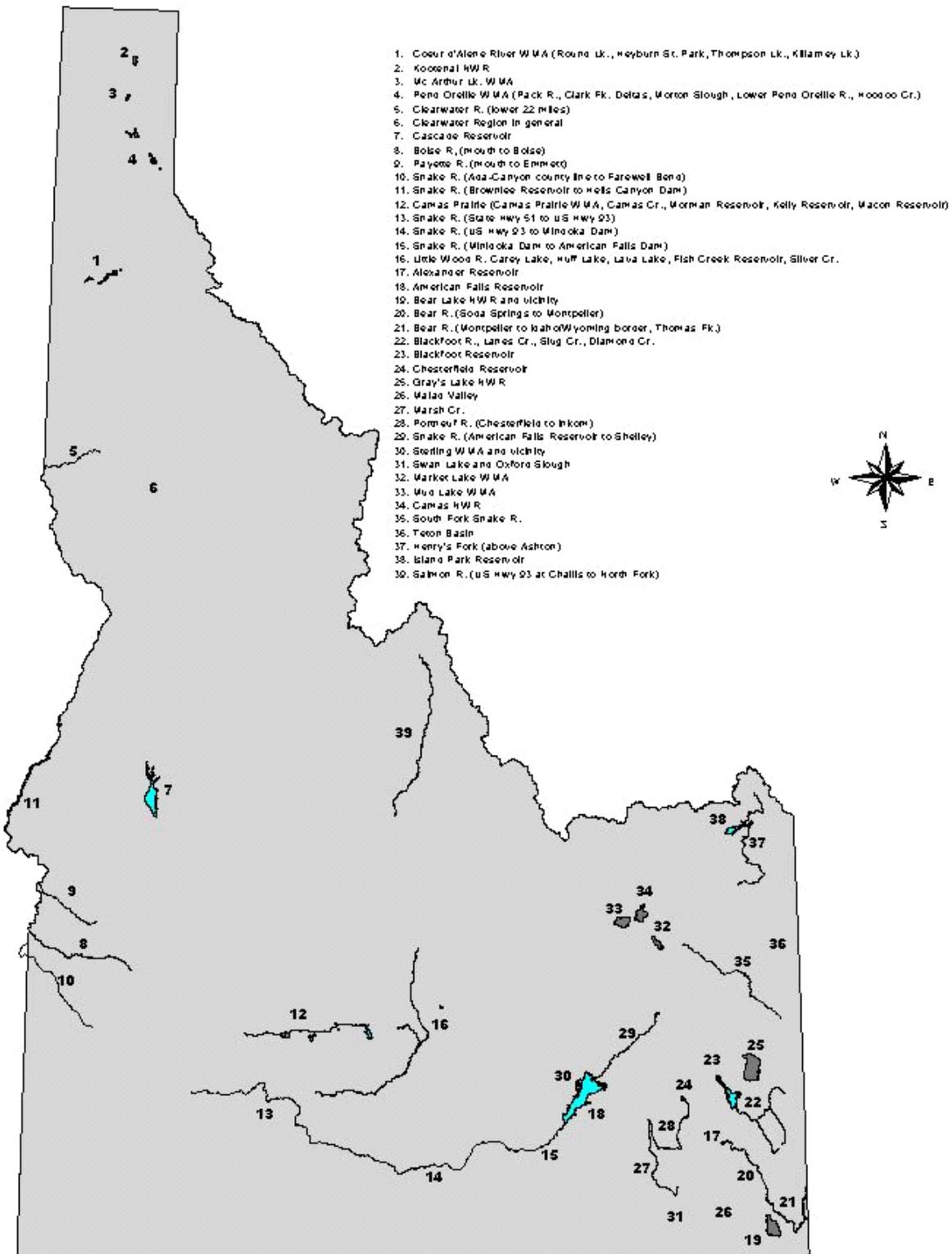


Figure 2. Idaho Canada goose nesting survey areas.

Table 1. Ducks banded in Idaho by IDFG and USFWS personnel, 2006.

Species	Panhandle	Clearwater	Southwest	Magic Valley	Southeast	Upper Snake	Salmon	Total
Mallard	1,081	0	509	0	0	77	0	1,667
Wood Duck	362	0	1	0	0	0	0	363
Ring-necked	0	0	0	0	0	0	0	0
Redhead	9	0	0	0	0	0	0	9
Pintail	0	0	8	0	0	0	0	8
Widgeon	2	0	0	0	0	0	0	2
Teal	45	0	0	0	0	0	0	45
Gadwall	0	0	0	0	0	2	0	2
No. Shoveler	1	0	0	0	0	0	0	1
Total	1,500	0	518	0	0	79	0	2,097

Table 2. Mallards banded in Idaho by IDFG and USFWS personnel, 1991-2006.

IDFG Region	1991-2001	2002	2003	2004	2005	2006	Total
Panhandle	5,687	809	2,043	1,992	1,823	1,081	13,435
Kootenai NWR	1,365	0	0	0	0	0	1,365
Clearwater	98	0	0	0	0	0	98
Southwest	2,348	0	0	0	0	0	2,348
Deer Flat NWR	3,067	254	0	596	440	509	4,866
Magic Valley	1,226	0	0	0	0	0	1,226
Minidoka NWR	822	0	0	0	0	0	822
Southeast	31	0	0	0	0	0	31
Grays Lake NWR	7,236	0	0	0	0	0	7,236
Bear Lake NWR	3,460	0	0	0	0	0	3,460
Upper Snake	1,257	0	0	0	0	77	1,334
Camas NWR	775	0	0	0	0	0	775
Tribal	1,554	0	0	0	0	0	1,554
Salmon	0	0	0	0	0	0	0
Total	28,926	1,063	2,043	2,588	2,263	1,667	38,550

Table 3. Idaho goose population survey areas (RMP in gray), 2006 counts, 3-year averages, and management objectives.

Region/Survey Area ^b	2006 Counts			Average 2004-2006			Objectives ^a (min.)		
	Nests	Pairs	Total	Nests	Pairs	Total	Nests	Pairs	Total
Panhandle	172		172	208		208			
1 Coeur d'Alene River WMA	91		91	46		46	35		
2 Kootenai NWR									
3 McArthur WMA	46		46	77		77	70		
4 Pend Oreille WMA	39		39	85		85	85		
Boundary Creek WMA	5		5						
Clearwater									
5 Clearwater River	29			^c 27			70		
6 Remainder of Region (farm ponds etc.)							50		
Southwest									
7 Cascade Reservoir		35	58		62	124	100	225	
8 Boise River							100		
9 Payette River		117	274		138	322	200	450	
10 Snake River South		741	1,484		654	1415	700	1,800	
11 Snake River North							50	100	
Magic Valley									
12 Camas Prairie		174	307		^c 238	^c 472	285	700	
13 Snake River (Hwy 51 to Hwy 93)		30	73		^c 148	^c 320	175	350	
14 Snake River (Hwy 93 to Minidoka)		29	56		^c 58	^c 109	60	120	
15 Snake River (Minidoka to American Falls)		82	184		^c 72	^c 177	120	275	
16 Little Wood River									
Southeast									
17 Alexander Reservoir									
18 American Falls Reservoir		15	21		13	19			
19 Bear Lake NWR		669	1344		389	856	640	1,400	
20 Bear River(Soda Springs-Montpelier)		25	58		22	39			
21 Bear River(Montpelier-ID/WY border)		57	107		55	99			
22 Blackfoot Reservoir-(upper)							150	375	
23 Blackfoot Reservoir		42	118		49	122			
24 Chesterfield Reservoir		1	2		3	4			
25 Grays Lake NWR		105	216		75	137	350	840	
26 Malad Valley		24	35		16	39			
27 Marsh Creek		45	114		62	171	190	380	
28 Portneuf River(Chesterfield-Inkom)		16	28		56	122			
29 Snake River(American Falls-Shelley)		25	41		44	85			
30 Sterling WMA		19	34		16	30			
31 Swan Lake and Oxford Slough		18	30		26	60	100	250	
Upper Snake									
32 Market Lake WMA		67	206		55	133	85		
33 Mud Lake WMA		57	109		76	126	95		
34 Camas NWR		22	45		46	81	130		
35 South Fork Snake River		8	26		19	51			
36 Teton Basin		27	93		35	73	90		
37 North Fork Snake River		7	60		9	45	15		
38 Island Park Reservoir		67	427		111	1,002	60		
Salmon									
39 Salmon River		328	996		302	1,465	175		

^a Connelly and Wackenhut (1990).

^b See Figure 2.

^c Two-year average.

Table 4. Active nests, indicated pairs, and total number of Canada geese (RMP in gray) in Idaho, 2002-2006.

Survey Area ^a	2002			2003			2004			2005			2006		
	N	P	T	N	P	T	N	P	T	N	P	T	N	P	T
Region 1															
1				108			92			49			91		
2															
3				33			61			30			46		
4				86			175			98			39		
Region 2															
5			187	31		138	25						29		
6			407	47		282	42								
Region 3															
7										89	190		35	58	
8															
9		215	440	149	336		182	454		114	237		117	274	
10		1,011	2,043	860	1,905		660	1,587		562	1,145		741	1,484	
11															
Region 4															
12		390	617	185	465		292	573					174	307	
13		141	336	177	326		195	409					30	73	
14		63	148	135	232		77	149					29	56	
15		38	76				51	113					82	184	
16															
Region 5															
17															
18		14	32	40	87		10	16		15	21		15	21	
19		377	797	359	751		177	320		398	905		669	1,344	
20		56	120	84	175		13	27		24	42		25	58	
21		86	191	27	50		32	58		77	132		57	107	
22		97	254	67	152		78	181		28	68				
23													42	118	
24		1	8	3	16		3	4		4	6		1	2	
25		78	164	46	92		81	128		40	68		105	216	
26		9	18	11	17		4	41		21	42		24	35	
27		0	0	58	200		80	207		62	193		45	114	
28		1	2	41	90		63	159		88	179		16	28	
29		54	108	52	83		84	146		23	67		25	41	
30		16	36	18	32		20	39		10	17		19	34	
31		27	54	58	175		15	31		44	118		18	30	
Region 6															
32		86	129	67	99		60	128		37	65		67	206	
33		94	167	114	255		107	166		65	102		57	109	
34		104	355	104	230		87	148		28	49		22	45	
35		16	31	20	43		19	66		29	61		8	26	
36		34	73	32	95		56	92		21	33		27	93	
37		17	29	11	34		6	28		14	48		7	60	
38		160	791	167	1,073		175	358		175	2,220		67	427	
Region 7															
39		333	857	227	799		292	820		286	2,578		328	996	

^a See Figure 2. N = # of active nests; P = # of indicated pairs; T = total # of geese.

Table 5. September aerial counts of RMP greater sandhill cranes in eastern Idaho, 1999-2006.

Region/Area	1999	2000	2001	2002	2003	2004	2005	2006
Magic Valley								
Camas Prairie	25	17	137	0	0	0	0	a
Carey Lake	8	0	6	2	0	0	0	a
Silver Creek	115	524	385	327	466	240	567	a
Southeast								
American Falls Reservoir	74	97	104	66	168	96	67	a
Bear Lake Valley	439	444	217	253	401	312	437	a
Bear River Valley	734	823	598	790	1,188	634	1,001	a
Blackfoot Reservoir	1,188	1,168	698	441	773	228	467	a
Chesterfield Reservoir	355	149	170	86	38	7	138	a
Grays Lake	1,144	1,529	1,734	1,467	1,430	1,728	1,384	a
Marsh Valley	324	284	192	277	202	120	245	a
Oxford Slough	418	94	143	242	93	220	145	a
Upper Snake								
Ashton-St. Anthony	1,516	1,405	1,485	1,876	1,180	1,337	716	
Camas NWR	192	429	257	331	347	381	532	313
Henry's Lake Flats	695	436	31	102	21	58	35	a
Island Park Reservoir	2	0	0	13	2	0	2	a
Kilgore	0	0	0	0	0	0	0	a
Market Lake WMA	0	2	2	2	0	1	0	0
Mud Lake WMA	62	105	94	172	371	164	100	291
Teton Basin	1,470	1,831	907	1,504	1,543	1,626	1,834	a
Total	8,761	9,337	7,160	7,951	8,223	7,152	7,670	

^a Aerial counts not conducted due to aircraft mechanical problems.

Table 6. Sandhill cranes counted during ground-based surveys in eastern Idaho, 1996-2002.

Area	1996	1997	1998	1999	2000	2001	2002
Ashton							
Pre-season				425	504	570	149
Mid-season							
Post-season				542	1,128	531	126
Teton Basin							
Pre-season	190			177	317	528	117
Mid-season	739						
Post-season	2,953			728	1,477	1,972	828
Blackfoot Reservoir Vicinity							
Pre-season	529	247	344	409			
Mid-season	992	541	506				
Post-season	787	423	318	968	1,168		

Table 7. Sandhill crane permit levels, estimated hunter participation and harvest based on mail and telephone surveys, 2002-2006.

Hunt Area	2002	2003	2004	2005	2006
Bear Lake-Caribou County					
Permits Available	263	210	165	300	300
Permits Issued	231	152	124	243	224
Total Hunters	124	107	106	114	119
Days Hunted	247	169	218	313	293
% Success ^a	47	49	73	45	59
Harvest	109	74	91	109	132
Fremont County					
Permits Available	75	60	48	70	100
Permits Issued	75	57	44	66	82
Total Hunters	^b 47	53	38	57	66
Days Hunted	85	93	76	101	121
% Success ^a	64	63	45	70	52
Harvest	48	36	20	46	43
Teton County					
Permits Available	75	60	48	70	100
Permits Issued	75	56	46	60	92
Total Hunters	^b 44	47	41	45	57
Days Hunted	94	63	60	90	101
% Success ^a	49	64	70	55	66
Harvest	37	36	32	33	61
State Total					
Permits Available	413	330	261	440	500
Permits Issued	351	265	214	369	398
Total Hunters	215	207	185	216	242
Days Hunted	426	325	354	504	515
% Success ^a	55	55	67	51	59
Harvest	194	146	143	188	236

^a Success rate shown is harvest per permit issued.

^b Known minimum number of hunters; not extrapolated for non-respondents.

Table 8. Age composition of sandhill crane harvest based on mail and telephone surveys, 2002-2006.

Hunt Area	2002	2003	2004	2005	2006
Bear Lake-Caribou County					
Juvenile	25		16	24	26
Adult	84		75	85	105
Unknown	0	74			
Fremont County					
Juvenile	5	7	5	9	5
Adult	43	29	15	37	38
Unknown	0 ^a	0 ^b	1 ^b	0 ^b	0 ^b
Teton County					
Juvenile	7	3	6	2	19
Adult	30	33	26	31	42
Unknown	0 ^a	0 ^b	0 ^b	0 ^b	0 ^b

^a All harvested birds were categorized as juveniles or adults based on rates reported in mail and telephone surveys.

^b Birds not classified as adult were assumed to be juvenile.

APPENDIX A

IDAHO

2005 SEASON

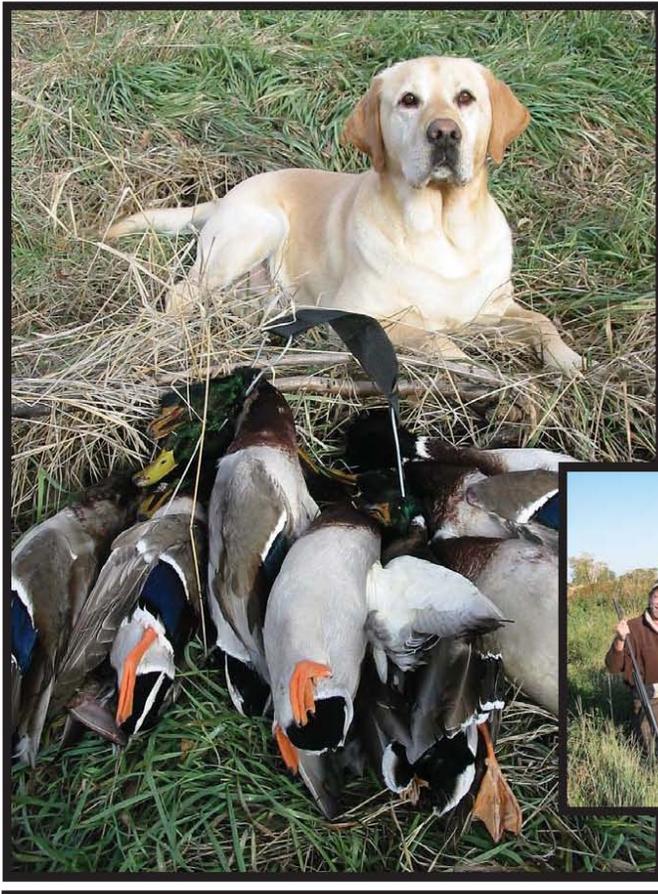
WATERFOWL RULES

2005 Waterfowl Seasons & Rules

Idaho
Department of
Fish & Game



REGULATIONS
2005-2006



*Dog photo courtesy of Al VanVooren
Hunter photo courtesy of Tom Burkhart*

Including: Common Snipe and American Coot

- Federal Migratory Game Bird Harvest Information Program Validation—REQUIRED
- Nontoxic Shot—REQUIRED
- Federal Migratory Bird Stamp—REQUIRED *(All hunters 16 or older)*

DON'T SHOOT!

SWANS ARE PROTECTED!

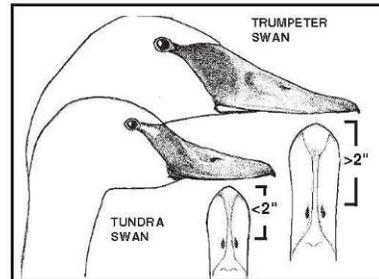
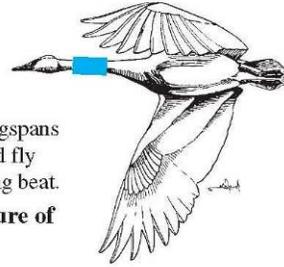
Two species of swans are found in Idaho: tundra swans, the smaller and far more numerous; and trumpeter swans, the largest and one of the rarest waterfowl species in the world. Both species are protected and cannot be hunted in Idaho.

Both of these slow, low-flying birds are vulnerable to accidental and illegal shooting. But, since they are much larger and have longer necks and adult birds are completely white, swans do not closely resemble any legal game bird. Trumpeters have a 7-foot wingspan and weigh 25-30 pounds. Snow geese and Ross' geese are also white but are much smaller and have black wing tips.

REPORT ALL SIGHTINGS OF SWANS WITH NECK COLLARS TO THE NEAREST IDFG OFFICE (SEE PAGE 22)

Young of the year swans (cygnets), are a medium gray color with paler belly and wing linings, weigh 15-20 pounds, have wingspans of almost seven feet and fly with a slow, distinct wing beat.

Hunters Must Be Sure of Their Targets!



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 and Fremont and Teton counties are CLOSED to the taking of light geese.

Open Season: October 8, 2005 through January 20, 2006

AREA 2

Area 2 includes the following counties or portions of counties:

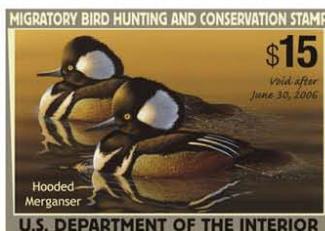
Ada; Blaine; Boise; Camas; Cassia; Canyon; Elmore; Gem; Gooding; Jerome; Lincoln; Minidoka; Owyhee; Payette; Power west of State Highway 37 and State Highway 39; Twin Falls; and Washington counties.

Open Season: October 15, 2005 through January 27, 2006

SPECIAL YOUTH WATERFOWL HUNTING DAYS

- Duck (including merganser and canvasback), goose, snipe, and coot hunting open for two days only, on September 24 and 25, 2005, 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!**



Don't Forget!

If you are 16 or older, you need to purchase a
Federal Migratory Duck Stamp.

These are available at:

Idaho Department of Fish and Game Offices

Local Post Offices

Some Vendors

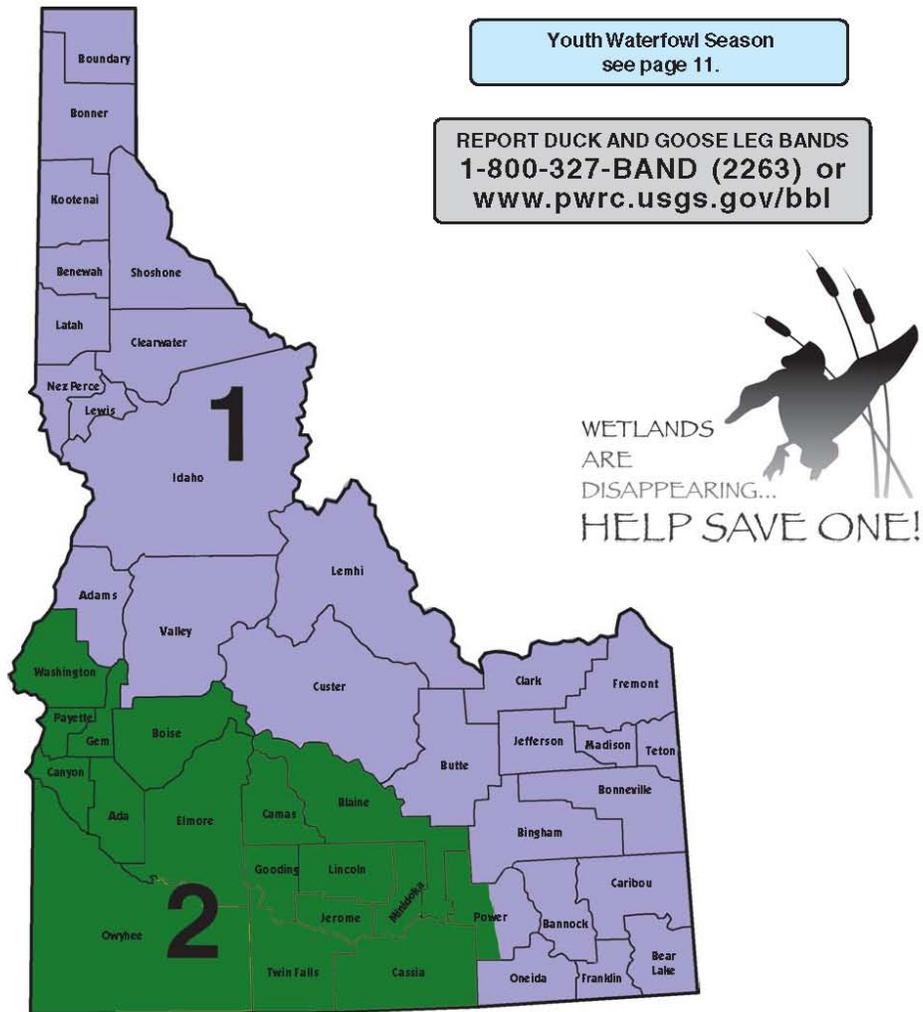
Information in this brochure summarizes the rules and is the official proclamation of the Idaho Fish and Game Commission for the taking of waterfowl. The official rules are available from the Division of Statewide Administrative Rules, Department of Administration, Statehouse Mail, Boise, ID 83720, and may be reviewed in some libraries. Maps are for general reference only.

Goose Limits and Hunt Areas

STATEWIDE

Daily Bag Limit: 4 of any kind.

Possession Limit After First Day of Season: 8 of any kind.



**Statewide Duck (Including merganser),
Common Snipe and American Coot
Seasons and Limits**

Canvasback Season is 60 DAYS ONLY

AREA 1

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

Regular Season: October 8, 2005 through January 20, 2006

Canvasback Season: October 8, 2005 through December 6, 2005

AREA 2

Area 2 includes the following counties or portions of counties:

Ada; Boise; Canyon; Cassia EXCEPT the Minidoka National Wildlife Refuge; Elmore; 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 15, 2005 through January 27, 2006

Canvasback Season: October 15, 2005 through December 13, 2005



Limits

Ducks (Including mergansers)

Daily Bag Limit:

7 of any kind except:

Shall not include more than the following:

- 1 canvasback
- 2 female mallards
- 2 redheads
- 1 pintail
- 3 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:

- 2 canvasbacks
- 4 female mallards
- 2 pintail
- 4 redheads
- 6 scaup (*lesser or greater in the aggregate*)

Limits for coots and commons snipe continued on next page.

Limits for Areas 1 and 2 for Coots and Common Snipe

Coots

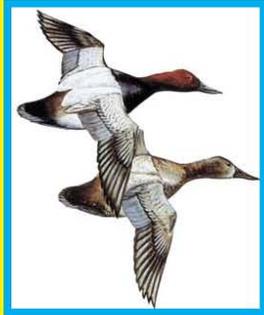
Daily Bag Limit: 25

Possession Limit After First Day of Season: 25

Common Snipe

Daily Bag Limit: 8

Possession Limit After First Day of Season: 16



Remember

Canvasback Season is only 60 days

Numbers of this large duck have declined in recent years and the US Fish and Wildlife Service is requiring a restrictive season during the 2005-2006 hunting season. This large duck is uncommon in Idaho and out of 200,000 ducks harvested annually in the state only a few thousand have been canvasbacks. The distinctly flat head profile and the male's white back are good ways to distinguish this duck in the field.



Visit www.IFWF.org or call 208.334.2648 and learn how YOU can help support habitat, conservation and education projects throughout Idaho!

PROXY STATEMENT *(To transport wildlife taken by another person)*

BIG GAME: Species

- Elk
 - Mule Deer
 - Whitetail
 - Other
- Please circle species*

Sex	Description (e.g.: antler points, wrapped, hind quarter, etc.)	Hunt Area Killed	Date

OTHER FISH/GAME:

Species _____ How many _____

Species _____ How many _____

Species _____ How many _____

Hunter/Angler's Name _____ Signature _____

Address _____ Phone _____

License No. _____ Tag No. _____ Permit No. _____

Name of person transporting _____ Phone _____

SANDHILL CRANE SEASONS, LIMITS AND PERMITS

HUNT AREA	HUNT NO.	SEASON	PERMITS
1	9501	September 1-15	300
2	9502	September 1-7	35
2	9503	September 8-15	35
3	9504	September 1-7	35
3	9505	September 8-15	35

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

On August 30, 2005, any controlled hunt permits that remain unsold after the controlled hunt drawing may be sold on a first-come, first-serve basis. In 2005, hunters may purchase as many as 9 permits and tags to hunt cranes. Each additional permit to harvest a crane will cost \$15.75.

The purpose 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.”**

CONTROLLED HUNT WORKSHEET

Applications can be submitted electronically at any IDFG license vendor. Applications can be made using your credit card by calling 1-800-554-8685 or on the Fish and Game website under “What’s New” (<http://fishandgame.idaho.gov>). Controlled hunt worksheets can be mailed with proper fees to: IDFG License Section, P.O. Box 25, Boise, ID 83707.

Use this worksheet to speed up the application process. Fill in the blanks with your hunting license and controlled hunt numbers before you apply. **Group Applicants:** Two hunters may apply on the same application.

HOW MANY HUNTERS ARE APPLYING?

DESIGNATE \$1 OF FEE TO C.A.P.?
(CITIZENS AGAINST POACHING)

(Single application for deer, elk, antelope, bear, moose, goat, sheep, Canada goose, sandhill crane or turkey)

NAME #1

Date of birth

LICENSE NUMBER

(Group application for deer, elk, antelope, bear, moose, goat, sheep, Canada goose, sandhill crane or turkey)

NAME #2

Date of birth

LICENSE NUMBER

YES	NO
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

IDAHO 2005

**SANDHILL CRANE
Controlled Hunt Season and
Application 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.

CONTROLLED CRANE HUNTS

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

FEES

Application Fee	\$6.25 (non refundable)
Controlled Hunt Permit	\$7.75
Sandhill Crane Tag	\$1.75
Federal HIP Validation	\$1.75

Note: Only the Application Fee is required during the application process. Fees are slightly less than stated above if purchased before 7/1/05. Successful applicants must then purchase permit, tag and federal HIP validation. The HIP validation is required with the first permit only.



Application Dates: June 15, 2005 to July 15, 2005. Applications may be submitted electronically at any Fish & Game license vendor, by telephone (1-800-554-8685), by mail or on the Fish and Game website under “What’s New” (<http://fishandgame.idaho.gov>). Mail applications must be received at IDFG Headquarters Office and **postmarked no later than the last day of the application period.** Applications will be taken **no earlier than the first day of the application period.** Applications must comply with the following requirements:

- Only one application form per person or group will be accepted. Additional application forms will result in all applicants being declared ineligible.
- Each applicant for controlled hunts must submit a \$6.25 nonrefundable application fee with their application. One dollar of this fee may be designated for the Citizens Against Poaching program.
- A single payment (either cashier’s check, money order, certified check or personal check) may be submitted to cover fees for all applications in the same envelope. If a check or money order is insufficient to cover the fees, all applications will be voided.
- Visa, MasterCard and Discover cards may be used to make telephone or internet applications. Those using the credit card system will pay the \$6.25 fee in addition to a service charge for completing and processing the computerized application and delivering it to Fish and Game. Charges will be explained upon request. To apply by credit card, dial 1-800-554-8685, 24 hours a day. Or look under “What’s New” on the IDFG Website.

Group Application is defined as two hunters applying for the same controlled hunt on the same application.

Second Choice Drawing: Single or group applications which are not drawn for the first choice hunt will automatically be entered into a second choice drawing provided the second choice hunt applied for has not been filled.

Notification: It is your responsibility to find out if you were successful in drawing a controlled hunt permit. Applicants can check drawing results under “What’s New?” on the Fish and Game website, <http://fishandgame.idaho.gov> by August 10. Successful applicants will be sent a postcard by August 10 informing them of their success. These applicants may go to any vendor and purchase a controlled hunt permit. Controlled hunt permits may also be purchased on the Internet.

Nonresident Permit Limitations: On 2005 controlled hunts, not more than 10 percent of the permits may be issued to nonresidents.

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 2005. 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.



Ask First—For Permission to Hunt on Private Property

The Idaho Department of Fish and Game (IDFG) adheres to all applicable state and federal laws and regulations related to discrimination on the basis of race, color, national origin, age, sex, or handicap. If you feel you have been discriminated against in any program, activity, or facility of IDFG, or if you desire further information, please write to: Idaho Department of Fish and Game, 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 20240.

Costs associated with this publication are available from IDFG in accordance with section 60-202, Idaho Code. 6-05/2500/41918

Sandhill Crane Controlled 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.

Area 3 — Includes all of Fremont County.

No mandatory check required for cranes in 2005.



Appendix Table A-1. Idaho waterfowl management, season structure, and limits, 1990-2005.

Year	Duck			Goose		
	Management Areas	Season Length (days)	Daily Limit ^a	Management Areas	Season Length (days)	Daily Limit ^a
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

^a Numbers in parenthesis indicate management areas had different daily limits. See Appendix A.

Submitted by:

Jim Hayden
Regional Wildlife Manager

Jay Crenshaw
Regional Wildlife Manager

Jon Rachael
Regional Wildlife Manager

Jeff Rohlman
Regional Wildlife Manager

Randy Smith
Regional Wildlife Manager

Carl Anderson
Regional Wildlife Manager

Daryl Meints
Regional Wildlife Manager

Tom Keegan
Regional Wildlife Manager

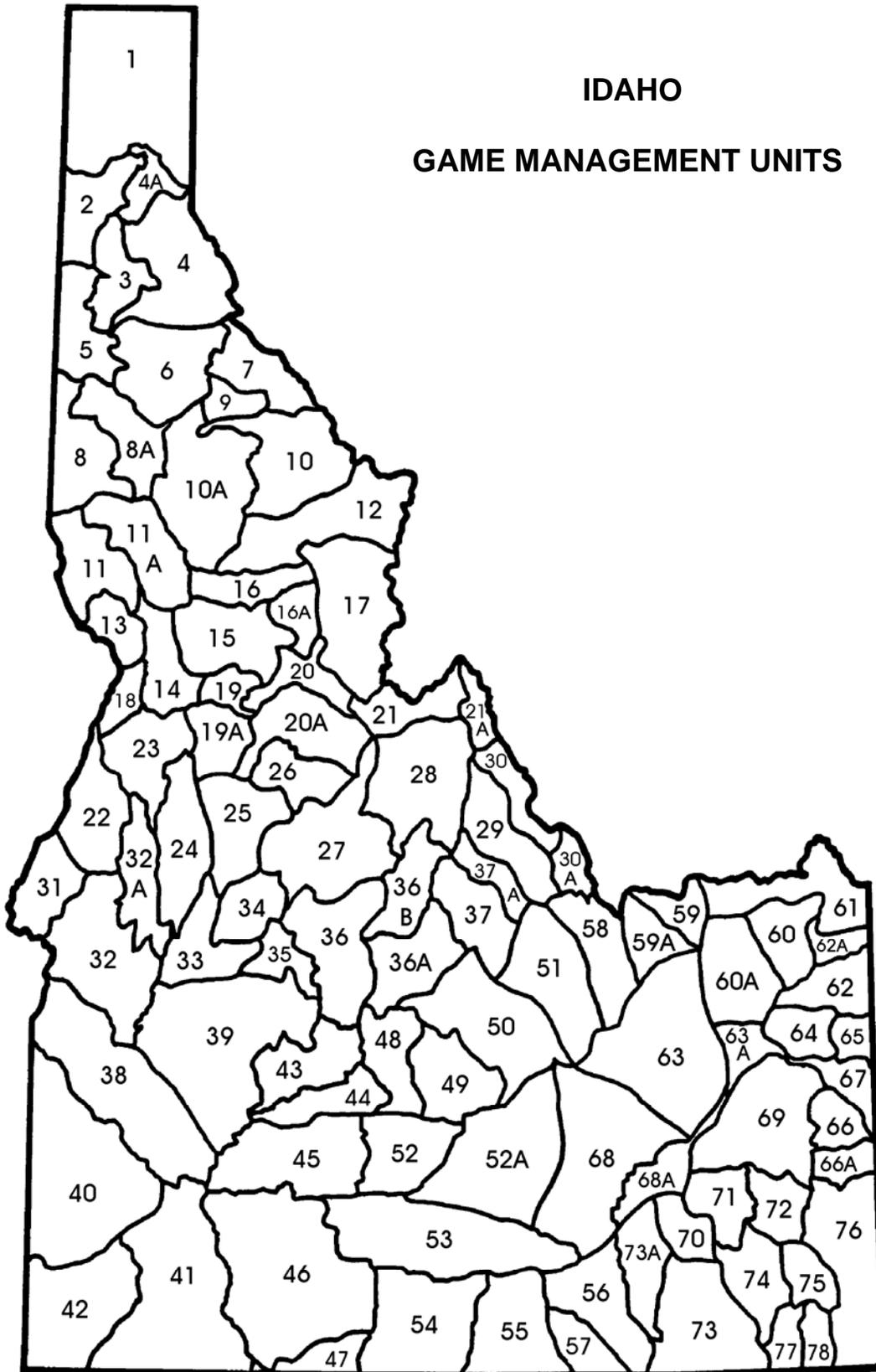
Approved by: IDAHO DEPARTMENT OF FISH AND GAME

Dale E. Toweill
Dale E. Toweill
Wildlife Program Coordinator
Federal Aid Coordinator

James W. Unsworth
James W. Unsworth, Chief
Bureau of Wildlife

IDAHO

GAME MANAGEMENT UNITS



FEDERAL AID IN WILDLIFE RESTORATION

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

