Nevada Department of Wildlife

2009

Upland and Migratory Game Bird, Rabbit and Furbearing Mammals

Harvest Data and Population Status Reports

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This program receives Federal Aid in Wildlife Restoration Grant W-48-R-40, Sub-grant III, Upland Game Management; Sub-grant IV, Migratory Bird Management; and Sub-grant V, Furbearer Management

ON THE COVER: The red fox is expanding its range of distribution in Nevada. Read more in the Special Features section. Drawing by Craig Mortimore

DIRECTOR'S MESSAGE
Kenneth E. Mayer, Director
Nevada Department of Wildlife

Dear Fellow Sportsmen:

Since the late 1950's, the entity responsible for the management of Nevada's wildlife (Nevada Board of Wildlife Commissioners and Nevada Department of Wildlife) has published a document on the status and trend of Nevada's upland game, waterfowl and furbearer species. Each year, regional biologists throughout the state spend a great deal of time examining populations and harvest data for all of these species. Then staff biologists collect and analyze statewide harvest data as well as other data provided from the field. This document is a result of that work and I am confident that you will find the contents comprehensive and interesting.

Unlike last year's forecast, the chukar outlook is promising. Chukar populations have had a rough couple years in many parts of the State. Late spring rains coupled with productive snow falls and a mild winter should have chukar hunters excited about the hatch and hunting opportunities. The same can be said for many of our California quail populations. This is good news after three relatively poor years of production. The Dusky and Sooty grouse prognoses are also favorable. So take to the field my shotgun friends.

While wildfires, West Nile virus and poor spring moisture patterns have all hindered sage grouse production in recent years, the 2008-09 sport harvest increased substantially as did hunter participation. There are birds out there, and it remains to be seen the positive effect the precipitation pattern has on our upcoming season. The projection for the 2009-10 season is for sage-grouse populations to experience a slight upward trend considering the improvement in production exhibited in 2008, as well as the expectation that production and recruitment in 2010 should also improve.

Waterfowl hunters again did not take to the field as much as in years past. Despite recoveries of continental duck abundance, and occasional short-term resurrection of Nevada's marsh habitat, the hunter numbers that the state used to support just aren't being revived. In 2009, hunters realized early on that they were in for a tough season so they worked harder and went to more places seeking opportunities, and many of them found it. Late water deliveries and less than full allocations hindered the production of foodstuffs sought by migrating and wintering waterfowl. Water is the key, and hopefully some old haunts benefitted from the early summer rains we experienced.

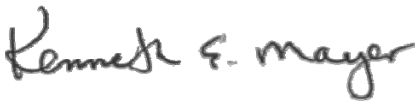
Sportsmen out seeking furbearers during the 2008-09 season found bobcat numbers a little down in some Areas due to the second year of poor kitten production revealed through the tooth analysis. This also preempted a reduction in the 2009-10 bobcat season which will have a December 1st start date and a February 19th ending. Other furbearing species appeared to be more abundant and reports are coyotes and gray fox did not experience the poor production bobcats did. Fur prices did not hold and fell almost across the board. This resulted in many trappers leaving the field early. If the prediction holds true and prices continue to fall, this may dampen the energy of some individuals, but a recovery in the market may reward those who venture out.

Also, remember to pick up a Sportsman's Journal at any of our regional offices or at a license agent to help you keep track of your trips and catalog your harvest. It is likely that you will receive a questionnaire in the mail regarding your harvest. Remember, just because you didn't get in the field you still must respond, just mark the box 'Did Not Hunt/Trap' and return in the self addressed stamped envelope

provided. These questionnaires provide the Department with valuable data that allows us to develop an improved product for you.

For more information about Small or Big Game Status and almost anything else you can think of, visit our website at www.ndow.org.

Thank you for your continued support and get out and make some new favorite memories. Have a great season!



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2008-2009 HUNTING SEASONS & BAG LIMIT REGULATIONS

CR 07-07

Dates are for the 2009-2010 season, unless otherwise noted.
Adoption on June 27, 2009 with Amendments #1, #2 and #3

UPLAND GAME

(Units referenced are Game Management Units)

YOUTH CHUKAR AND HUNGARIAN PARTRIDGE HUNT	
OPEN AREAS:	Statewide
SPECIES ALLOWED:	Chukar and Hungarian partridge.
SEASON DATES:	September 26 - 27
LIMITS:	Daily bag limit 6. Possession limit 12.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Limit singly or in the aggregate. Open to hunters 15 years of age or younger only. Youth must be accompanied by an adult who is at least 18 years old.

YOUTH CALIFORNIA, GAMBEL'S AND SCALED QUAIL HUNT	
OPEN AREAS:	Statewide
SPECIES ALLOWED:	California, Gambel's and scaled quail
SEASON DATES:	September 26 - 27
LIMITS:	Daily bag limit 10. Possession Limit 20.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Limit singly or in the aggregate. Open to hunters 15 years of age or younger only. Youth must be accompanied by an adult who is at least 18 years old.

RABBIT YOUTH HUNT	
OPEN AREAS:	Statewide
SPECIES ALLOWED:	Cottontail, pygmy and white-jackrabbits
SEASON DATES:	September 26 - 27
LIMITS:	Daily bag limit 10. Possession Limit 20.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Limit singly or in the aggregate. Open to hunters 15 years of age or younger only. Youth must be accompanied by an adult who is at least 18 years old.

SAGE-GROUSE	
OPEN AREAS:	Unit 184 of Churchill and Lander Counties
SEASON DATES:	October 3-4
LIMITS:	Daily bag limit 2. Possession limit 4.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Closed to nonresidents.
OPEN AREAS:	Elko County, except Units 079, 091 and 106 Eureka County Humboldt County, except Units 033, 035, 042, 044, 046 and 151 Lander County, except Units 151, 183 and 184 Nye County except Units 132, 133, 181, 251 and 252 Washoe County, except Units 021, 022, 033, 194 and 196 White Pine County, except Unit 114, 115 and 132
SEASON DATES:	September 25 – October 9
LIMITS:	Daily bag limit 2. Possession limit 4.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Closed to nonresidents.
OPEN AREAS:	Unit 033 of Washoe and Humboldt Counties (Sheldon National Wildlife Refuge) excluding the Little Sheldon and other areas as posted.
Hunt Period #1	
SEASON DATES:	September 19-20
Hunt Period #2	
SEASON DATES:	September 26-27
LIMITS:	Daily bag limit 2. Possession limit 4.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Open to nonresidents. Limited to 75 reservations per hunt period, awarded through random draw. Unless his privilege is limited or revoked pursuant to law, any resident or nonresident is eligible to apply once for the Sheldon Special Sage Grouse Hunt in a year. Up to 4 applicants may apply as a party. Parties may be comprised of a combination of residents and nonresidents. Applications for reservations for the Sheldon Special Sage Grouse Hunt must be received by the Nevada Department of Wildlife, Game Division, 1100 Valley Road, Reno NV 89512 by 5:00 p.m. on the first Friday in August. Successful applicants will be notified by mail.

BLUE AND RUFFED GROUSE	
OPEN AREAS:	Statewide*
SEASON DATES:	September 1 – December 31
LIMITS:	Daily bag limit 3. Possession limit 6.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Limit singly or in the aggregate. Per NAC 503.185, the head or one fully feathered wing must be attached to all blue and ruffed grouse until the carcass reaches the possessor's residence or a commercial facility for its preservation. Persons harvesting blue grouse are requested to deposit one wing from each bird harvested at any Nevada Department of Wildlife office, check station, or with Department employees who contact you in the field. Persons harvesting ruffed grouse in Humboldt County are requested to report harvest to the Department of Wildlife - Winnemucca sub-office: 815 East Fourth St., Winnemucca, NV 89445; phone- (775) 623-6565

SNOWCOCK	
OPEN AREAS:	Elko - Management Units 101,102, and 103, and that portion of White Pine County in Unit 103.
SEASON DATES:	September 1 - November 30
LIMITS:	Daily bag limit 2. Possession limit 2.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Limit singly or in the aggregate. Prior to hunting snowcock persons must obtain a snowcock hunting free-use permit from any Nevada Department of Wildlife office. Permits may be faxed to persons planning to hunt snowcock once appropriate information has been collected from the hunter.

CHUKAR AND HUNGARIAN PARTRIDGE	
OPEN AREAS:	Statewide
SEASON DATES:	October 10, 2008 – February 7, 2009
LIMITS:	Daily bag limit 6. Possession limit 18.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Limit singly or in the aggregate.

CALIFORNIA, GAMBEL'S, SCALED AND MOUNTAIN QUAIL	
OPEN AREAS:	Statewide
SEASON DATES:	October 10, 2008 – February 7, 2009
LIMITS:	Daily bag limit 10. Possession limit 20.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Limit singly or in the aggregate except for mountain quail where limits may not include more than 2 daily and 4 in possession. Persons who harvest mountain quail are requested to report their harvest to the Nevada Department of Wildlife, 1100 Valley Road, Reno, NV 89512, phone (775) 688-1500.

PHEASANT	
OPEN AREAS:	Statewide
SEASON DATES:	November 1 – November 30.
LIMITS:	Daily bag limit 2. Possession limit 4.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Cocks only

COTTONTAIL, PYGMY AND WHITE-TAILED RABBITS	
OPEN AREAS:	Statewide
SEASON DATES:	October 10, 2008 – February 28, 2009
LIMITS:	Daily bag limit 10. Possession limit 20.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	Limit singly or in the aggregate.

WILD TURKEY

WILD TURKEY 2009 FALL – LIMITED ENTRY – HUNTS 0131 & 0132			
Physical Characteristics:	Either Sex Wild Turkey		
Limit:	1 by tag only		
Shooting Hours:	Sunrise to sunset daily		
Special Regulations:	Application Deadline 5:00 p.m. on the first Friday in September. Release date on the third Friday in September.		
MASON VALLEY WILDLIFE MANAGEMENT AREA OF LYON COUNTY			
	Season	Tag Quota	
		Resident Hunt 0131	Nonresident Hunt 0132
Hunt Periods:	Oct. 5 – Oct. 14	10	1
	Oct. 15 – Oct. 24	10	1
	Oct. 25 – Nov. 3	10	1
MOAPA VALLEY OF CLARK COUNTY			
Hunt Periods:	Oct. 5 – Oct. 14	5	-
	Oct. 15 – Oct. 24	5	-

WILD TURKEY 2009 FALL - GENERAL – HUNTS 0135 & 0137		
Physical Characteristics:	Either Sex Wild Turkey	
Limit:	1 by tag only.	
Shooting Hours:	Sunrise to sunset daily.	
Special Regulations:	Application Deadline 5:00 p.m. on the first Friday in September. Release date on the third Friday in September.	
Open Areas:	Season	Quota
Units 202, 203, 204 and 291 of Lyon County*, except the Mason Valley Wildlife Management Area	Oct. 5 – Oct. 25	Open*

** Applicants are advised that a significant portion of the turkey population occurs on private lands and permission should be obtained from a landowner before applying for this hunt.*

Turkey continued on next page

WILD TURKEY 2009 SPRING – LIMITED ENTRY – HUNTS 0131 & 0132			
Physical Characteristics:	Bearded Wild Turkey		
Limit:	1 by tag only		
Shooting Hours:	One half hour before sunrise to 1:00 p.m. daily		
Special Regulations:	Application Deadline 5:00 p.m. on the third Tuesday in February. Release date on the first Friday in March.		
UNITS 181 & 182 of CHURCHILL COUNTY			
	Seasons	Tag Quota	
		Resident Hunt 0131	Nonresident Hunt 0132
Hunt Periods:	March 25 – April 13	5	-
	April 14 – May 3	5	-
UNIT 091 of ELKO COUNTY			
Hunt Periods:	March 25 – May 5	5	-
UNIT 101 of ELKO COUNTY*			
Hunt Periods:	March 25 – May 5	5	-
UNITS 065 & 102 of ELKO COUNTY*			
Hunt Periods:	March 25 – May 5	15	2
UNIT 103 of ELKO & WHITE PINE COUNTIES*			
Hunt Periods:	March 25 – May 5	10	1
UNITS 151* and 152* of LANDER COUNTY*			
Hunt Periods:	March 25 – May 5	3	-
UNITS 223, 231, 241, 242, 243 and 271 of LINCOLN COUNTY**			
Hunt Periods	March 25 – April 3	20	2
	April 4 – April 13	20	2
	April 24 – May 3	20	2
PERSHING COUNTY*			
Hunt Periods:	March 25 –April 13	5	-
	April 14 – May 3	5	-
MASON VALLEY WILDLIFE MANAGEMENT AREA ONLY OF UNIT 203			
Hunt Periods:	March 25 – April 3	10	1
	April 4 –April 13	10	1
	April 14 – April 23	10	1
	April 24 – May 3	10	1

**Applicants are advised that a significant portion of the turkey population occurs on private lands and permission should be obtained from a landowner before applying for this hunt.*
*** Applicants are advised that a portion of the turkey population occurs on private lands.*

Wild Turkey (continued)

WILD TURKEY 2009 SPRING – LIMITED ENTRY – HUNTS 0131 & 0132			
Physical Characteristics:	Bearded Wild Turkey		
Limit:	1 by tag only		
Shooting Hours:	One half hour before sunrise to 1:00 p.m. daily		
Special Regulations:	Application Deadline 5:00 p.m. on the third Tuesday in February. Release date on the first Friday in March.		
MOAPA VALLEY PORTION OF UNITS 243 & 271 IN CLARK COUNTY*			
	Season	Tag Quota	
		Resident Hunt 0131	Nonresident Hunt 0132
Hunt Periods:	March 25 – April 3	3	-
	April 4 –April 13	3	-
	April 14 – April 23	3	-
UNIT 114 of WHITE PINE COUNTY UNIT			
Hunt Periods:	Season Closed	-	-
UNIT 115 of WHITE PINE COUNTY UNIT			
Hunt Periods:	March 25 – May 5	14	1
**Applicants are advised that a significant portion of the turkey population occurs on private lands and permission should be obtained from a landowner before applying for this hunt.*			

WILD TURKEY 2009 GENERAL SPRING HUNTS - 0135 & 0137		
Physical Characteristics:	Bearded Wild Turkey	
Limit:	1 by tag only.	
Shooting Hours:	One half hour before sunrise to 1:00 p.m. daily	
Special Regulations:	Application Deadline 5:00 p.m. on February 19, 2008. Release date on March 7, 2008	
Open Areas:	Season Dates	Quota
Units 202, 203, 204 and 291 of Lyon County*, except the Mason Valley Wildlife Management Area	March 25 – May 5	Open*
* Applicants are advised that a significant portion of the turkey population occurs on private lands and permission should be obtained from a landowner before applying for this hunt.		

JUNIOR WILD TURKEY 2009 GENERAL SPRING HUNTS – 0138		
Physical Characteristics:	Bearded Wild Turkey	
Limit:	1 by tag only.	
Shooting Hours:	One half hour before sunrise to 1:00 p.m. daily	
Special Regulations:	Youth must be 12 prior to the opening of the hunt season indicated and not attain their 17th birthday until after the last day of the hunt season indicated, pursuant to NAC 502.063. Application Deadline is 5:00 p.m. on the third Tuesday in February. Applications for these tags will only be accepted during this period. Results will be available by the first Friday in March. Closed to nonresidents.	
Open Areas:	Season Dates	Quota
Units 223, 231, 241, 242, 243 and 271 of Lincoln County	April 14 - 23	Open**
** *Applicants are advised that a portion of the turkey population occurs on private lands.*		

2008 - 2009 APPLICATION PROCEDURES FOR RESIDENT AND NONRESIDENT HUNTS:

Unless his privilege is limited or revoked pursuant to law, an eligible person may apply once for a type of hunt for Wild Turkey during a draw period.

Only one person may apply on an application.

Applications must be mailed to the address specified on the application through a postal service or submitted online through the Internet at www.ndow.org. Applications will be accepted until 5:00 p.m. on the date specified in the regulation. Hand delivered applications will not be accepted.

Except for the Junior Wild Turkey Hunts, any remaining tags will be available on a first come first serve basis through the Internet at www.ndow.org, by mail or over the counter during business hours, M – F, 8 a.m. to 5 p.m. at Wildlife Administrative Services, 185 N. Maine St, Fallon, Nevada 89407 until the close of the season.

Only one Wild Turkey tag can be awarded to an individual within a calendar year.

Turkey continued on next page

WILD TURKEY 2009 SPRING HUNTS - 0135 & 0137 PARADISE VALLEY OF HUMBOLDT COUNTY		
Physical Characteristics:	Bearded Wild Turkey	
Limit:	1 by tag only.	
Shooting Hours:	One half hour before sunrise to 1:00 p.m. daily.	
SEASON DATES:	March 25 – May 5	
QUOTAS:	Resident Hunt 0135	Nonresident Hunt 0137
	Open	Open

Special Regulations:

PARADISE VALLEY OF HUMBOLDT COUNTY APPLICATION REGULATIONS:

A Paradise Valley of Humboldt County Application Form is required. Hunters can obtain these forms from the participating landowners. A landowner must sign the application form. The form must be submitted through the mail or over the counter during business hours, M-F, 8 a.m. to 5 p.m. at Wildlife Administrative Services, PO Box 1345, Fallon, NV 89407-1345. Tags will be available until the close of the season. Internet applications for the Paradise Valley of Humboldt County hunt will not be available.

Unless his privilege is limited or revoked pursuant to law, an eligible person may apply once for a type of hunt for Wild Turkey during a draw period.

Only one person may apply on an application.

Only one Wild Turkey tag per calendar year.

MIGRATORY UPLAND GAME BIRDS

AMERICAN CROW	
OPEN AREAS:	Statewide
FALL SEASON:	September 1 – November 17
SPRING SEASON:	March 1 – April 15, 2009
LIMITS:	Daily bag limit 10
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS: **FOOTNOTE:** ***Season closed on ravens***	Shotguns only. All crows must be retrieved and removed from the field.

Note: pursuant to 50 CFR 20.133 the maximum number of days a state can allow crow hunting is 124 in a calendar year.

MOURNING & WHITE-WINGED DOVE	
OPEN AREAS:	Statewide
SEASON:	September 1 – 30
LIMITS:	Daily bag limit 10. Possession limit 20.
SHOOTING HOURS:	One half hour before sunrise to sunset daily.
SPECIAL REGULATIONS:	White-wing dove season is closed in all counties except Clark and Nye counties. Limits for mourning dove and white-wing dove are singly or in aggregate in Clark and Nye Counties.

Note: Federal Framework for dove hunting seasons is published in July each year. Identified dates and season length are subject to change. Should the federal framework require alteration of Commission-approved seasons, then an amendment to CR07-07 shall be submitted for Commission action at their August meeting.

FALCONRY SEASONS FOR UPLAND GAME BIRDS & RABBITS	
OPEN AREAS:	Statewide*
SEASON DATES:	September 1 – last day in February
LIMITS:	Daily bag limit 2. Possession limit 8.
SHOOTING HOURS:	Sunrise to sunset daily.
SPECIAL REGULATIONS:	All resident upland game birds except turkey and sharp-tailed grouse. Cottontail, pygmy, and White-tailed jackrabbits. The taking of sage-grouse by falconry is only allowed in those units where there is an established open season. The daily and possession limit for sage-grouse is 2 and 4. Limits singly or in the aggregate.

FURBEARING ANIMALS

BEAVER, MINK AND MUSKRAT	
OPEN AREAS:	Statewide
SEASON DATES:	October 1 – March 31, 2010

OTTER	
OPEN AREAS:	Elko, Eureka, Humboldt, Lander and Pershing Counties
SEASON DATES:	October 1 – March 31, 2010
SPECIAL REGULATIONS:	Carson City, Churchill, Clark, Douglas, Esmeralda, Lincoln, Lyon, Mineral, Nye, Storey, Washoe and White Pine counties are closed to otter trapping. If an otter is accidentally trapped or killed in those counties which are closed, the person trapping or killing it shall report the trapping or killing within 48 hours to a representative of the Department of Wildlife. The animal must be disposed of in accordance with the instructions of the representative.

KIT AND RED FOX	
OPEN AREAS:	Statewide
SEASON DATES:	October 1 – February 29, 2010

GRAY FOX	
OPEN AREAS:	Statewide
SEASON DATES:	November 1 - February 29, 2010
SPECIAL REGULATIONS:	**Closed to Nonresidents.**

BOBCAT	
OPEN AREAS:	Statewide
SEASON DATES:	December 1 - February 19, 2010
SPECIAL REGULATIONS:	**Closed to Nonresidents.**

BOBCAT PELT SEALING DATES

Pelt sealing will be done only during normal business hours (8:00 a.m. - 5:00 p.m.) on the dates specified, unless otherwise noted. Sealing locations will be at Department offices unless otherwise noted.

BOBCAT PELT SEALING DATES FOR THE 2008-2012 SEASON			
City	Date	Time	Location
Elko	Third Tuesday in January.	8 a.m.–5 p.m.	NDOW Elko Office
	March 1st.		
Ely	Friday following January sealing date in Elko.	8 a.m.–2 p.m.	NDOW Ely Office
	Last Tuesday in February.	8 a.m.–2 p.m.	NDOW Ely Office
Eureka	Thursday following January sealing date in Elko.	12 p.m.–5 p.m.	NDOW Eureka Office
	Last Monday in February.		
Fallon	Last Monday in January.	10 a.m.–3 p.m.	NDOW Fallon Office
	Annually scheduled to coincide with the Friday, Saturday and Sunday mornings of the NTA Sale.	7 a.m.–11 a.m.	Nevada Trappers Association Fallon Fur Sale
		10 a.m.–3 p.m.	NDOW Fallon Office
Las Vegas	Second Tuesday in January.	1 p.m.– 5 p.m.	NDOW Las Vegas Office
	Third Tuesday in February.	8 a.m.– 5 p.m.	
	March 1st.	1 p.m.– 5 p.m.	
Panaca	Last Monday in February.	8 a.m.– 5 p.m.	Nevada State Parks - NDOW Office, Panaca
	March 1st.	1 p.m.– 5 p.m.	
Tonopah	Last Monday in February.	8 a.m.– 5 p.m.	NDOW Tonopah Office
	March 1st.	1 p.m.– 5 p.m.	
Winnemucca	Last Tuesday in January.	8 a.m.– 2 p.m.	NDOW Winnemucca Office

MIGRATORY WATERFOWL

CR 09-08

2009-2010

Adopted on August 15, 2009

SEASONS, BAG LIMITS, AND SPECIAL REGULATIONS FOR MIGRATORY WATERFOWL

Note regarding Zone designations:
NORTHERN ZONE: Carson City, Churchill, Douglas, Elko, Esmeralda, Eureka, Humboldt, Lander, Lyon, Mineral, Nye, Pershing, Storey, Washoe & White Pine Counties
SOUTHERN ZONE: Lincoln & Clark Counties

SPECIAL YOUTH WATERFOWL HUNT	
OPEN AREAS:	NORTHERN ZONE
2009-10 SEASON:	October 3, 2009
OPEN AREAS:	SOUTHERN ZONE
2010 SEASON:	February 13 & 14, 2010
LIMITS:	Daily bag limit is the same as that for the general season for ducks, mergansers, geese, coots and moorhens. Limits singly or in the aggregate for Canada and white-fronted geese. Limits singly or in the aggregate for Snow and Ross' geese. Snow and Ross' geese are closed in Ruby Valley within Elko and White Pine Counties.
SHOOTING HOURS:	½ hour before sunrise to sunset
SPECIAL REGULATIONS:	Open to hunters 15 years of age or younger. Youth must be accompanied by an adult who is at least 18 years old. Adults are not allowed to hunt during this season. Open to Nonresidents.

DUCKS AND MERGANSERS	
OPEN AREAS:	NORTHERN ZONE
2009-10 SEASON:	October 17, 2009 – January 30, 2010
OPEN AREAS:	SOUTHERN ZONE, except the Moapa Valley portion of the Overton Wildlife Management Area.
2009-10 SEASON:	October 17, 2009 – January 29, 2010
OPEN AREAS:	Moapa Valley portion of the Overton Wildlife Management Area.
2009-10 SEASON:	October 31, 2009 – January 29, 2010
LIMITS (daily / possession)	
General Duck Limits:	7 / 14
Pintail:	2 / 4
Mallard (total/female):	Included within the general duck limit, but not to include more than 2 hen mallards daily and 4 in possession.
Redhead:	2 / 4
Canvasback:	1 / 2
SCAUP (Lesser and Greater)	
OPEN AREAS:	NORTHERN ZONE
2009-10 SEASON:	November 7, 2009 – January 30, 2010
OPEN AREAS:	SOUTHERN ZONE
2009-10 SEASON:	November 7, 2009 – January 29, 2010
LIMITS (daily/possession):	3 / 6, included within the general duck limit
Shooting hours:	½ hour before sunrise to sunset
Special Regulations:	Open to Nonresidents

COOTS AND COMMON MOORHENS (Common Gallinules)	
OPEN AREAS:	NORTHERN ZONE
2009-10 SEASON:	October 17, 2009 – January 30, 2010
OPEN AREAS:	SOUTHERN ZONE, except the Moapa Valley portion of the Overton Wildlife Management Area.
2009-10 SEASON:	October 17, 2009 – January 29, 2010
OPEN AREAS:	Moapa Valley portion of the Overton Wildlife Management Area.
2009-10 SEASON:	October 31, 2009 – January 29, 2010
LIMITS (daily/possession):	25 / 25
Shooting hours:	½ hour before sunrise to sunset
Special Regulations:	Open to Nonresidents

COMMON SNIPE	
OPEN AREAS:	NORTHERN ZONE
2009-10 SEASON:	October 17, 2009 – January 30, 2010
OPEN AREAS:	SOUTHERN ZONE, except the Moapa Valley portion of the Overton Wildlife Management Area.
2009-10 SEASON:	October 17, 2009 – January 29, 2010
OPEN AREAS:	Moapa Valley portion of the Overton Wildlife Management Area.
2009-10 SEASON:	October 31, 2009 – January 29, 2010
LIMITS (daily/possession):	8 / 16
Shooting hours:	½ hour before sunrise to sunset
Special Regulations:	Open to Nonresidents

CANADA AND WHITE-FRONTED GEESE	
OPEN AREAS:	NORTHERN ZONE
2009-10 SEASON:	October 17, 2009 – January 30, 2010
OPEN AREAS:	SOUTHERN ZONE
2009-10 SEASON:	October 17, 2009 – January 29, 2010
Limits (daily/possession)	3 / 6
Shooting hours:	½ hour before sunrise to sunset
Special Regulations:	Open to Nonresidents

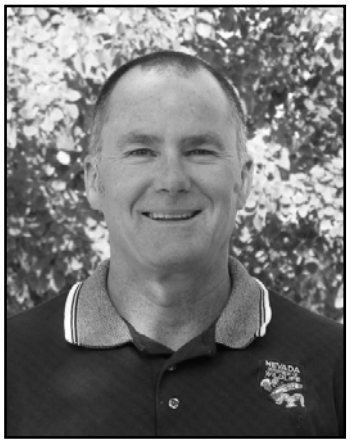
SNOW AND ROSS' GEESE	
OPEN AREAS:	NORTHERN ZONE
2009-10 SEASON:	October 17, 2009 – January 30, 2010
OPEN AREAS:	SOUTHERN ZONE
2009-10 SEASON:	October 17, 2009 – January 29, 2010
Limits (daily/possession)	10 / 20
Shooting hours:	½ hour before sunrise to sunset
Special Regulations:	Open to Nonresidents CLOSED: Ruby Valley within Elko and White Pine Counties

FALCONRY SEASONS FOR MIGRATORY GAME BIRDS	
OPEN AREAS:	NORTHERN ZONE
2009-10 SEASON:	October 17, 2009 – January 30, 2010
OPEN AREAS:	SOUTHERN ZONE
2009-10 SEASON:	October 17, 2009 – January 29, 2010
Limits (daily/possession)	3 / 6
Shooting hours:	½ hour before sunrise to sunset
Special Regulations:	Migratory birds allowed for take include: geese, ducks, mergansers, coots, common moorhens and common snipe. Limits for all permitted migratory birds are singly or in the aggregate. Open to Nonresidents.

SWAN	
OPEN AREAS:	Churchill, Lyon and Pershing counties
2009-10 Season:	October 17, 2009 - January 3, 2010
LIMITS:	One swan per swan hunt permit Maximum two swan hunt permits per season One swan per day
SHOOTING HOURS:	½ hour before sunrise to sunset
SPECIAL REGULATIONS:	Persons may apply for one of the 650 swan hunt permits. Applications must be mailed through a postal service to the address listed on the application or submitted online through the Internet at www.ndow.org. Permits are to be awarded through an initial drawing. Deadline: Applications must be received by 5:00 p.m. by Friday September 18, 2009. No hand delivered applications for the drawing. Results of the initial drawing will be provided by Friday, October 2nd, 2009. Any remaining swan hunt permits will be available on a first come, first served basis through the mail or over the counter during normal business hours (M-F 8:00 am – 5:00 pm) at the Wildlife Administrative Services Office, 185 North Main Street, Fallon, Nevada Beginning on Monday, October 5, 2009. Applications are available at all Department of Wildlife offices and select license agents. Persons may apply for a second swan permit beginning on Monday, October 5, 2009. Applicants can submit one application per draw period. Applicants that did not apply for the initial drawing period may submit two applications during the first come, first served draw period. Successful swan hunters are required to validate their permit pursuant to NAC 502.380, and then present at least the head and neck of their swan to an NDOW agent at selected sites for species verification within five (5) days of harvest. Mandatory inspection sites and requirements will be provided with the swan hunt permits. If a total harvest of five (5) trumpeter swans is reached, the swan season is closed for the remainder of the season. Persons must possess a valid annual Nevada hunting license and both a current Federal Migratory Game Bird Hunting Stamp and a current Nevada Duck Stamp, when required, to hunt swan in Nevada. Open to Nonresidents who have a valid annual Nevada hunting license or a Nonresident Short-Term Permit to hunt Upland game & Waterfowl and required waterfowl stamps.

BIOLOGIST PROFILE

STEVE FOREE, Supervising Biologist – Eastern Region, Habitat Division – Elko



Steve Foree is a family man. Now that brings up a generalized image that was prevalent in 1950's television series – you know: *Father Knows Best, Leave it to Beaver, My Three Sons*. But "family" here has a larger meaning. Steve is the son of Bill Foree, a man who was NDOW's game biologist for Areas 3 & 5 in Humboldt County, a career that spanned four decades. Bill got to see his boy join the Department in 1980, fresh out of the University of Nevada, Reno and then spend a few years together as the only father and son concurrent employees for a few years until Bill's retirement in 1985. Bill set a high standard and the eyes were on Steve to see if the seed ran true. To the fortune of Nevada's hunter it did.

Steve went to work right away as the Game Division's biologist with responsibility for Area 10, which includes the Ruby Mountains, home to Nevada's largest deer herd. He was cast right into the maelstrom as this area supported then and continues to support today the highest number of deer tags in the state. This many deer tags means there are a lot of deer hunters and deer hunters are just like real people – they all have opinions. Perhaps Steve's greatest skill was honed during his time as a field biologist for he definitely exhibits a calm nature and a diplomatic tone to form management decisions that serve the desires of a host of hunter groups. That doesn't mean he's a smooth politician without depth, Steve has a tremendous intellect that serves him and NDOW well.

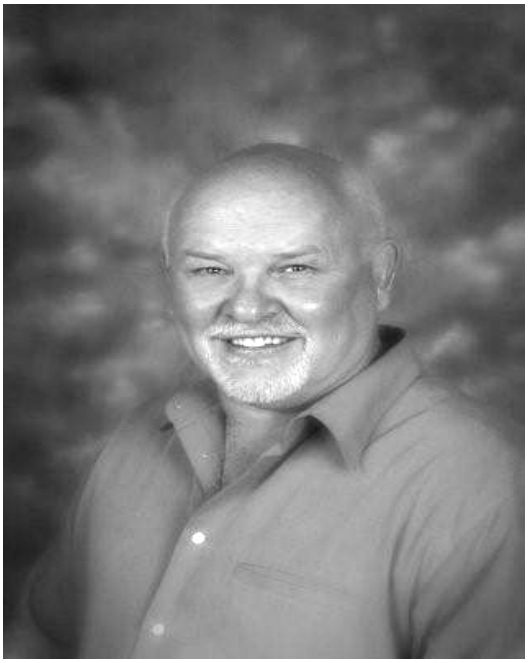
After two decades in the field Steve came to the realization that he could contribute to the conservation of wildlife and serve his agency at a higher level. Therefore in 1999, he accepted the job as Eastern Region Supervising Biologist for the Habitat Division. This position required Foree to work closely with land management agencies such as the Bureau of Land Management and the United States Forest Service to represent the needs of wildlife in land use actions. Here again, Steve's tactful demeanor served the Department, and the public, well. He negotiated numerous habitat mitigation projects by taking land that had through natural succession, exhausted its value to mule deer by becoming inundated with dense forests of piñon and juniper. Working with the mining industry, conservation organizations and other agencies, Steve helped secure the funding necessary to convert these decadent lands into the open brush and grassland communities that provide forage for deer and other animals. Wildfire rehabilitation also drew upon his skills as an ecologist and collaborator of organizations. Steve will tell you that this is a shared responsibility and he humbly credits the resource specialists with other agencies as the source of these successes. Many of these people have become his close friends.

Steve also identifies his role in the reintroduction of bighorn sheep into the Ruby Mountains and the East Humboldt Range as career highlights. The presence of elk on Spruce Mountain can be tracked to his tireless efforts to bring this species back to the home range it once occupied. Many hunters have filled their tags with these magnificent animals. Like most NDOW biologists, their own anonymity within the tales that these successful nimrods boast at the campfire and hearth are perfectly in order, for these actions are undertaken for the animals themselves and the people that enjoy them.

On a personal level, Steve today enjoys fishing, hiking and gardening – the latter a task that results in one sore back and a lot of patience but provides the dividends of harvest. He has been happily married to Tam, his bride of 23 years. Together they have proudly raised two daughters, Elise now aged 19 and Erin, 21. One can imagine how Steve's diplomatic nature served him in negotiating peace with two teen-aged daughters in the home. It is something those 1950's sit-com dads would have appreciated. Now if only one of the girls follows in the family business, the state would certainly benefit with another Foree in the field.

SPORTSMAN PROFILE

JOEL BLAKESLEE



Born in a town called Mink Creek, centered in Cache Valley Idaho, named by the mountain men trappers who cache furs there, and the son of a local outdoorsman and trapper, it could be said Joel Blakeslee was born to the outdoors. If your earliest memories involve checking trap lines with your father and skinning muskrats you caught on the way to the bus stop, it could be manifest destiny that you grow up to be the President of the Nevada Trappers Association, win numerous awards for your abilities and end up in the Nevada Trappers Hall of Fame. In 2008 Joel was also awarded the Trapper of the Year Award for the West by the National Trappers Association.

For many that is a seasonal life style or a mere hobby, but for Joel the wild lands of Nevada and the outdoor lifestyle is much more, it is a lifelong commitment to insure others have the opportunity to walk that path, if they so choose. He also currently serves on the Board of Directors for the Nevada Wildlife Coalition, an organization dedicated to conserving wildlife and a way of life many Nevadans hold dear. Joel, a successful realtor and businessman himself, continues to give freely his time for these causes. He is proud of the fact that the Nevada Trappers Association works closely with the Department of Wildlife and has helped fund numerous projects. Currently, that includes a bulletin being drafted by the Department on the "Status of the Bobcat in Nevada".

Joel is quick to talk about his past and the many people responsible for his love of wildlife and the wild lands. Besides his father being a large influence, he credits a high school biology teacher for his continued interest in trapping. The teacher, an accomplished trapper himself, used to bring in carcasses and let students help skin them for extra credit (my how times have changed!). He proudly speaks of his old truck he drove in high school, complete with gun rack, traps and duck decoys always present in the back. During his college days, his skill set helped keep a little cash flow going through some lean college years. While most students barely made it to class on time, Joel would already have several hours in the field checking his lines on his way to class.

In 1974 he got a job at the Desert Range Experiment Station on the Nevada border. There he learned a lot about predators as he worked on telemetry projects with bobcats, coyotes, and antelope. In his own words, " From there, I drifted into Baker Nevada and spent the next decade or so working for the Forest Service in the summers and trapping professionally in the winters".

He eventually trapped in every county in the state at one time or the other, catching just about every furbearer known to exist in Nevada. He remembers fondly, (as many of us do), a time when 300 days a year were spent in the beloved wild lands of Nevada. He describes it with a smirk as a lonely, wonderful life. Joel has also trapped in Alaska for wolf and wolverine and various other species in Nevada, Utah, Wyoming, Colorado, California, and Idaho through many a difficult winter.

He eventually left the wilds to "catch" a wife and currently resides in Reno where wonderful winter days on the trap line are still spent, now however, grandchildren accompany him. For Joel, passing the legacy is important. While the legs have forsaken him a little, every fortuitous step in the back country now is a walk down memory lane, to a time when he was that young boy tagging along behind. And mysteriously, every trapping season the spring in the step returns.

SPECIES PROFILE

RED FOX

The silence of another night was broken by the bark of a dog and the cackling flutter of a chicken roost disturbed. The startled individual stumbled from his slumber and clamored for a weapon as he headed out to face the trespasser. The mêlée lasted mere seconds and the late arrival of the so-called 'protector' was irrelevant. The damage was done. Several motionless carcasses lay strewn about. Immediately it was evident an inconspicuous predator had made an unwelcome visit. This story is as timeless as man himself. Accounts of this very nature are abundant in Native American folklore from pre settlement days to just weeks ago when the Department had a call concerning an unknown predator raiding a chicken coop. The cunning and opportunistic predator was a red fox (*Vulpes vulpes*).

Archaeological dig sites have unearthed red fox DNA from Native American fire sites and dumps from pre historic times in southern Canada. However the historical range of the world's most widely distributed carnivore to this day is of some debate. It is well known introductions on North American soil occurred throughout early settlement times as European fox hunters in the New World were not happy with the gray fox's ability to climb trees. As with the European starling (*sturnus vulgaris*), red fox were introduced into the Americas to bring an Old World friend to the New World. Later, the fur industries infatuation with the reds brought on a lucrative fur industry that found them relatively easy to breed in captivity. To confuse the lineage and distribution further, taxonomic splitters had historically recognized two distinct species of red fox, one Old World (*Vulpes vulpes*) and one New World (*Vulpes fulva*) species. However the currently accepted classification is one species (*Vulpes vulpes*) with a multitude of subspecies. Twelve subspecies are recognized in North America alone. The debates into native versus non-native populations are still a popular target of research and conversation.

Another popular discussion revolves around the multiple color phases that exist in red fox. Generally reds have black-tipped ears, black cheek patches, white throat parts and a lighter underside. Black stocking legs are also common with the remainder of the fur being red to red blonde. The characteristic white-tipped tail is more prominent in North American red foxes than their European counterparts. The variations on the common red fox pelage phase are numerous, but there are only three recognized color phases that reoccur in red fox populations. Those are the red, silver and the cross phases. The silver and cross phases are more prevalent in the more northern latitudes of North America.

The most common is the red phase. Many variations occur just within the familiar red phase with the cherry red being considered the "true" red fox pelage. Trappers often refer to the mottled or mixed pelage that typically occurs on the backside near the rump as "bastardized" red fox, but this is just an individual characteristic of the red phase and is more prevalent in certain subspecies.

The silver phase (actually a misnomer), is a characteristic of only the North American red fox. Silver foxes are actually black with white/silver tipped guard hairs. The white tipped tail is also visible on the silver phase fox. The cross phase is generally dark overall with light buffy patches near the legs, shoulders and hips. The distinct cross of dark fur across the shoulders is historically the reason for the name but the term 'cross fox' has also been used as a reason for the unusual pelage color. The cross pelage was thought to be "hybridized" due to cross breeding with fur farm raised foxes, which is not the case. Some fur farms breeders may have specifically selected for this phase, as with the silver, but it is a natural variation. All of these color phases can be present in the same litter of pups.

The worldwide distribution of red foxes is a testament to the versatility and adaptability of the species. It is a non-specific predator and will utilize a multitude of prey and food items, at times, in relative abundance to their densities. Meaning whatever there is a lot of, they will eat a lot of, and that is most often rodents. If it were only larger in size it would be a formidable challenger to the recognized king of adaptability, the coyote. The lack of size, in North America generally 7.7-15.6 lbs, probably keeps it from feasting on larger prey consistently but documented accounts of predation on livestock such as sheep, calves as well as deer fawns exist. They can be devastating to populations of waterfowl and shorebirds in areas where these species are concentrated such as wildlife refuges and wetlands. Increased predation by red fox has been identified as having a major impact on the net production of prairie pothole mallards. They have been identified as a factor adding to the decline of several species of shorebirds and a primary reason impeding their ultimate recovery. Control strategies targeting red fox have been successful in aiding initial recovery efforts for several species of clapper rails in the west as well as upland game birds and waterfowl on hunting preserves and wetlands. Successful fur trapping and recreational hunting has long been an excepted reason for some curtailed expansion of the species.

While adaptability has aided greatly in the success of this species, high fecundity keeps it expanding. Litter sizes from four to eight offspring are common and numerous accounts indicate litters of over ten may be uncommon, but are not rare. Mating pairs are generally established in January through February with most birthing occurring from March through May. Vixen fox are in estrus for 1-6 days with a gestation period of 51-53 days. It is not known if wild red fox are polygamous, but it is not unusual to see multiple viable males around one vixen in estrus. They can be fairly ambitious when dispersing, both males and females. This coupled with recruitment rates of 3-4 pups per litter provide ample opportunity for expansion into previously uninhabited ranges.

Another perplexing aspect of red fox life is they can exist in somewhat of a communal lifestyle. Research has shown that a male or multiple males can coexist with multiple breeding vixens. Usually when one male and multiple vixens exist, the vixens are related. Generally only one of the vixen breeds but multiple litters have been observed with the pups raised in the same dens, or in a close cluster of dens.

Compared to many furbearing species our relative knowledge of red fox exceeds most others. Their high fecundity and dispersal distances help offset high mortality rates in areas where high mortality exist. My own personal knowledge of red fox in Nevada is the population is expanding, and is evident in the growing representation in the harvest data. Personal communications with generations of family members has revealed that many pockets of red fox in Nevada were not known to exist just a few short years ago. I know of no other furbearing species that can solicit such varied opinions as to the role it plays in the ecosystem, either historically native or currently invasive, throughout the West as the red fox solicits.

WEATHER AND HABITAT

CLIMATE REPORT

Below are paragraphs for each part of the state describing how moisture, snow, and temperature affect both vegetation and upland game populations. The majority of data are provided by the Natural Resource Conservation Service's National Water and Climate Center. Table 1 summarizes snow pack and water-year precipitation from SNOTEL sites throughout Nevada and the surrounding water basins.

Northwestern Nevada

Much of northwestern Nevada began the 2008 water year with average to above average precipitation through February of 2008. However, a very dry spring put many drainage basins well below average. The Lower Humboldt River Basin and Northern Great Basin only received 52% and 57% of average precipitation for the month of April, one of the key months for upland game species in terms of improving body condition before nesting.

Some relief was provided to the Northern Great Basin in late May of 2008 with some significant precipitation events that provided 123% of normal precipitation and vastly improved upper elevation range conditions. If not for this event, upland game production throughout western Nevada would likely have been very poor and the 2008-09 could have produced very little in the way of harvest for many upland game birds.

Nevada is known for its extremes in terms of weather and the events in the late spring of 2009 were no exception. After an improved winter from the year prior, late May and June rains provided much needed precipitation to most of the state. June precipitation receipts for the Lower Humboldt River Basin and Northern Great Basin were 255% and 321% of average respectively. These rains produced growth of forbs and grasses not seen in quite some time and extended the growing season into July, especially in the upper elevations. Green mountainsides were noted until August, which is often the exception. As suspected, this has translated into good production of many upland game species in this region of the state.

Central Nevada

According to data published by the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), central Nevada continues to experience abnormally dry to severe drought conditions. Although late winter and spring conditions in 2008 were more favorable than in 2007, allowing for some modest improvements in production for some species, conditions were still far below average. During the summer of 2008, central Nevada once again suffered from precipitation levels far below average. The dry trend continued through the late summer and fall with the months of July through November receiving only 62% of average precipitation totals. In October of 2008, central Nevada received a mere 17% of average precipitation.

Precipitation amounts returned to normal during November and December 2008, and January 2009, with average or above average totals. Despite this short reprieve, a return to below average conditions during February and March negated much that might have been gained and snowpack conditions fell below normal once again. Although the dry, mild winter allowed for good carryover of adult animals, impacts to the quality and quantity of key forage continues to negatively influence wildlife and their habitats in central Nevada. Production rates of upland game populations are expected to improve due to late spring and early summer moisture that resulted in improved range conditions. The cumulative impacts of drought conditions over the past few years have negatively affected many wildlife species and their habitats in central Nevada to a point where it will take improved climatic conditions over quite some length of time to see any real improvements.

Northeastern Nevada

After beginning the 2008 water year with above average precipitation receipts through February of 2008, things quickly began to dwindle thereafter with poor spring moisture. Basin-wide precipitation data collected by NRCS SNOTEL sites show that precipitation receipts were approximately 10% below average as of August 2008 for the Upper Humboldt, Snake River and Owyhee River Basins.

Some relief was provided for upland game populations via some June rain events, but they were not substantial enough to overcome the three months of relatively dry conditions from March through May. It is thought that this hampered production of many upland game species in the Easter Region. Unfortunately, this area of the state did not receive the late May moisture experienced in the Northern Great Basin (123%) that vastly improved conditions for nesting hens and chicks.

On the bright side, the 2009 water year is much improved over 2008 with upwards of 110% of average precipitation received in all three major drainage basins monitored by the NRCS. June of 2009 was the second wettest on record and wettest since 1913 with some basins such as the Owyhee River and Snake River Basins receiving 380% of average precipitation. This should translate into greater production of all upland game species in this portion of the state.

Southeastern Nevada

In 2008, Lincoln County received approximately 89% of the previous ten-year average of precipitation According to WRCC/DRI. BLM rain data obtained from 26 areas throughout Lincoln County suggests that the total was approximately 80% of average received since 2000. The year-to-date totals show Lincoln County to be at approximately 83% of average so far in 2009. The months of February and April have been the only months with decent precipitation throughout this area. Lincoln County can have very diverse weather conditions due to the change in latitude and elevation from north to south. The northern end of Lincoln County contains the higher elevation mountain ranges and tends to receive higher amounts of winter precipitation. The southern end of Lincoln County is lower elevation Mojave Desert terrain that typically receives more of the monsoonal moisture. According to WRCC/DRI, Ely received approximately 59% of average annual precipitation in 2008. Area 22 received very little precipitation throughout 2008. Area 23 received slightly higher-than-average amounts of monsoonal moisture, which resulted in moderate to good range conditions during the fall months. October, November, and December were all drier than average, but not significantly so. The late winter and spring of 2009 has been cooler and drier than recent years.

Range conditions appear moderate to good across Lincoln County at this time. Although 2008 was drier than average, the timing of a large portion of precipitation coming during the summer months plays an important role in allowing native vegetation a “shot in the arm” so to speak. In general, the invasive annual grasses are cured out during this time which helps native or other beneficial plants to compete with exotic annual grasses. This tends to help areas of burned pinyon-juniper recover and produce quality forage for wildlife and livestock. This would be especially true if wild horse numbers were reduced to a level closer to AML.

Southern Nevada (Mojave Desert)

In February 2009, the drought status of the Mojave Desert region in southern Nevada improved from moderate drought to abnormally dry. Based on rain gauge data collected by Clark County Regional Flood Control District in cooperation with United States Geological Survey and National Weather Service (NWS), Las Vegas and outlying areas in Clark County experienced generally dry conditions over a ten-month period from late January 2008 through late November 2008.

The recent winter of 2008-09 was wetter than the three preceding winters. Beginning in late November 2008 and extending into March 2009, storms produced precipitation generally in brief and localized events. In the short term, vegetative conditions in early 2009 are improved relative to spring conditions in the preceding three years (2006-08). However, the increased precipitation receipts during winter months

have promoted widespread establishment of exotic invasive annuals. The expanse and density of exotic annual grasses provides an easy ignition source for wildfire and carries fire quickly across the landscape. This will continue to be a concern until temperatures cool in the fall.

TABLE 1. Water basin climate data from SNOTEL monitoring stations throughout Nevada, southern Idaho and the Sierra Nevada Mountains for total precipitation received from October 1, 2008 through August 31, 2009 in inches (Natural Resources Conservation Service). Averages are based on data from 1971 – 2000. Data is considered provisional and subject to revision.

BASIN	Precip. % of Avg.
NORTHERN GREAT BASIN	97
TRUCKEE RIVER	90
LAKE TAHOE	89
CARSON RIVER	95
WALKER RIVER	95
SNAKE RIVER / BRUNEAU BASIN	121
OWYHEE BASIN	113
UPPER HUMBOLDT RIVER	116
LOWER HUMBOLDT RIVER	94
CLOVER VALLEY	114
EASTERN NEVADA	116

WETLAND HABITAT CONDITION REPORT

The Natural Resources Conservation Service (NRCS) produces monthly water supply outlook reports[1] that describe measured indicators of precipitation throughout the state. This report examines data drawn from the May 2009 report. That is a period of the year that is important in determining rates of flow to important wetlands, particularly in western Nevada. Other considerations such as reservoir storage and irrigation district delivery schedules are also discussed as both play an important role in marshes that are terminal wetlands.

Readers are encouraged to peruse the wetland habitat condition reports placed on the NDOW website two weeks before the hunting season opener and again in the mid-season for summarized details about the status of specific marshes.

Western Nevada

In May, the drainages providing water for the terminal wetlands in Lahontan and Lovelock Valleys were experiencing poor spring run-off for the third consecutive year.

Lahontan Valley: In May instruments measured an overall snowpack for the Carson Range at 78% of average. This was an improvement over last year's 56% and indicated that the depleted Lahontan Reservoir could at least expect some river flow to increase its storage capacity, but certainly not to full capacity based upon melt water from the Carson River alone. The Truckee River also provides water to Lahontan Reservoir through the Truckee-Carson Irrigation District's (TCID) Truckee Canal. But due to the disastrous channel breach of January 2008, diverted flows through this canal are not allowed at their former rates. In their August 10th report[2], The TCID reports that Lahontan Reservoir storage was measured at 104,090 acre-feet and was expected to decrease to 59,700 acre-feet by the end of August irrigation in Lahontan Valley. Inflow from the Carson River in July 2009 was 738 acre-feet – the vestiges of the northern Carson Range snow melt, and their predicted inflow through the river in August was expected to be zero acre-feet. Inflow from the Truckee Canal for July was 4,329 acre-feet, but the August inflow was expected to be stripped down to 1,000 acre-feet. Based upon poor winter precipitation totals the TCID Board of Directors had originally established the 2009 allocations to water users, including the Stillwater National Wildlife Refuge (SNWR) and Canvasback Club, at 80% of full decree. In June that was amended to 90% and following the abundant, consistent-duration rains that fell in June, the most recent (Aug 7th) decision has been to increase allocations to 100%. That bodes well for conservation deliveries to wetlands. However, the fact is that water receipts need to come in the spring in order to grow the forage, particularly submergent vegetation like sago pondweed, throughout the summer for the migrating waterfowl that depend upon it. These conditions were recently verified by Norman Saake, a former NDOW waterfowl biologist who now conducts waterfowl population flights for the SNWR. Precipitation nearly shut off following that wet June and July and August have been particularly hot.

At Carson Lake a 1,200 acre foot delivery provided by the SNWR was directed to three Big Water and York units to provide summer habitat for breeding birds. Prime water deliveries are to commence at the end of August and will be directed toward filling the Rice Unit, and freshening the Big Water and York Units. Water will flow into the Sprig Ponds in mid-September. The Big Water produced a decent sago crop and will likely attract and hold fair numbers of ducks. The later water deliveries should stimulate some emergent growth and will result in a quick flourish of invertebrates to feed waterfowl and other birds. NDOW has been burning some of the emergent vegetation in the late summer. Crews have also worked to improve boat access within some of the channels on Carson Lake.

The SNWR currently has 4,500 acres receiving water and has a lush growth of submergents established in the following wetlands: Goose Lake, North & South Tule Lake, West Marsh & Willow Lake. Additional water deliveries should contribute to 7,200 wetland acres by mid October, flooding some excellent stands of annual plants and initiating a bloom of invertebrates for early fall migrants.

1 http://www.nv.nrcs.usda.gov/snow
2 http://www.tcid.org/watersupcond.htm

Lovelock Valley: Despite above average precipitation recorded for most of the mountain ranges contributing to the Humboldt River system actual flows into the Humboldt Wildlife Management Area have been nearly non-existent. At press time, the Humboldt Sink was dry with only a small flow coming down the Army Drain. The Toulon Unit is dry with no visible in-flows. Currently, NDOW is working on a project to partition the Toulon Unit in order to compartmentalize the geography of the playa/marsh to make better use of partial inflows. Further upstream, Rye Patch increased in volume but was not at capacity. The irrigation district moved water through the system but only under a single delivery to downstream users. This partially explains why drain water did not continue onto the HWMA. Decent marsh habitat can be found at the northeast end of Rye Patch where the river enters and should support fair hunting this year.

Mason Valley Wildlife Management Area (MVWMA): The West Walker River was flowing at nearly normal (long-term average) flows this year. Accordingly, managers at the MVWMA were able to manipulate water in a variety of ways to benefit nesting and migrating waterfowl. Approximately 1/3 of the area's ponds on the east side of the river had volumes at 75 – 100% during the summer, providing habitat for nesting waterfowl. Others were managed under a moist soil regime – an approach that keeps vegetation growing in anticipation of flooding just before the season. Some ponds that were less than 50% could be dry by the time the seasons commences, while others are slated for late summer water deliveries. Six ponds were dry during the summer and at least two will remain so going into the hunting season. All ponds west of the river will be kept dry this year. NDOW anticipates taking another 800-1000 acre feet of water from the Fort Churchill cooling pond, and an additional 330 acre feet of water will be brought onto the area from the Joggles well towards mid September into early October.

As for other wetlands in Western Nevada, Alkali Lake WMA continues to remain dry and any precipitation occurring between the publication date of this report and this hunting season would have to be pretty substantial to offer any hope of providing loafing habitat for migrating ducks and geese. The Fernley WMA is nearly dry and continues to accept marginal flows from the Fernley water treatment plant, which in turn provides limited hunter opportunities. The Scripps WMA and the remainder of Washoe Lake are about 50% of normal. The mitigation wetlands continue to suffer the ill-effects of drought, as one very inefficient irrigation well continues to try and keep up with evaporative losses in one pond. With decreasing lake levels, these wetlands become ever increasingly hard to fill and/or manage. The mitigation wetlands at the south end of the lake are mostly dry. Saake reports from his August survey the following regarding Walker Lake:

> "The one exception is Walker Lake which continues to produce better crops of feed as the lake recedes. It currently has the largest duck population and best feed of any wetland this year. Food production may be the best I have ever observed, but hunting in this area will be very difficult because some of the food beds (widgeon grass) have grown up to 3/4 mile out from the shore and even now the birds are out of range of the shoreline."

Eastern and Southern Nevada

Wayne Kirch Wildlife Management Area (WKWMA): Precipitation for the 2009 reporting period was 3.07". This is below the last five year average of 5.13". Spring and early summer temperatures were well below normal with several days of cloudy and overcast conditions which resulted in lower than normal evaporation rates. Windy conditions accompanying the unsettled weather conditions during the nesting period may have caused some nest destruction.

Water levels were maintained at prescribed levels consistent with the WKWMA water management plan and remained stable throughout the nesting season. Adams-McGill reservoir was not drawn down to allow natural lowering to occur later in the summer. Old Place and Dacey slough were lowered to moist soils in April and allowed to dry so that grazing could take place in order to remove rank vegetation and control undesirable emergent vegetation. Mowing was also completed on Old Place and will be followed with herbicide spraying in early August to specifically control areas of overgrown hardstem bulrush and cattail. Refilling of Old Place reservoir and adjacent spreader dikes will be dependent on the availability of water; it is expected to be refilled to near maximum capacity by the duck opener in October.

Alkali bulrush production was fair throughout the area despite having to compete with the overgrowth of hardstem bulrush and cattail in some areas. With the continued control of hardstem bulrush and cattail and seeding of alkali bulrush it is expected that alkali bulrush production will respond and improve over the next few years. Pond weed production was good to excellent on all reservoirs and was available in time for the broods to take advantage of. Adams-McGill reservoir continues to see the bulk of waterfowl use during spring and early summer as well as Dacey reservoir especially near the northern areas of the reservoirs.

Waterfowl use on Tule was excellent in the spring and early summer but is expected to decrease as water levels go down due to evaporation. Most of the Canada goose production was on Adams-McGill reservoir, Upper Dacey reservoir and Upper Cold Springs reservoir. Total surface acres for WKWMA ranged from over 1,800 acres in February through March 15th, down to approximately 1,500 acres by June and then a gradual natural lowering to less than 1,300 acres by the end of August. As the hot season subsides and water availability increases it is expected that approximately 1,500 surface acres will be flooded by early October, a slight increase over last year's surface water conditions. .

Key Pitman Wildlife Management Area (KPWMA): Waterfowl habitat in the Pahranagat Valley is in good condition only because the majority of the wetlands are fed by springs. The twenty year annual precipitation average is 7.00" and for the past year Hiko has received 5.06"; however, only 0.37" of rain has fallen during the past five, while the average for that same period has been 2.47". This summer has been hot, dry and windy.

Both Lakes were full in April utilizing the surplus winter water from Hiko spring and about half the summer water budget has gone into Nesbitt Lake. The rest of the summer water has been used to irrigate the food plots. Nesbitt Lake at KPWMA is currently low but should provide good hunting opportunities. Frenchy Lake is in good condition and should provide excellent hunting opportunities from the beginning of the waterfowl hunting season. The north ponds are currently dry with an excellent crop of alkali bulrush. These ponds will be chopped and flooded prior to the waterfowl opener.

Ducks and geese have utilized the food plots throughout the spring and summer. The fields at KPWMA will be seeded with a 3-way mix or annual rye and irrigated just prior to the waterfowl opener. The fields should start to green up in mid October and will provide a very attractive food source for the migrating waterfowl. The farm lessee changed from corn to a 3-way mix of oats, barley and wheat this year. Nesbitt Lake is full of sago pond weed and will provide abundant forage for the waterfowl this fall. The summer grazing program was resumed this year, the cattle are used to remove dead and fallow vegetation and invigorate the grasses and open trails which help with public access.

Pahranagat National Wildlife Refuge (PNWR): The upper lakes at the PNWR are currently dry, which is normal circumstances at this time of year when the south lake is historically dry or nearly so during early August. A water control structure is being repaired on the upper lake and is scheduled to be completed by October 1st. Last year the refuge dried the upper lakes during the summer and began filling with their winter water in October. The abundant feed and no hunting on the upper lakes provided a sanctuary for the waterfowl in the Pahranagat Valley which attracted most of the birds in the valley. This scenario dramatically reduced the hunter success last year starting in late October/early November and will probably be repeated this year.

Ruby Valley: Presently the Ruby Lake NWR is 62 percent flooded. The South Marsh is flooded and the water level over a majority of the hunt zone (north end of unit) ranges from six inches to a foot deep, creating ideal habitat for dabblers. Outside the hunt zone the West Marsh units are flooded while the North and East Marsh units are dry. The West Marsh, East Marsh, and North Marsh units are closed to hunting. Franklin Lake WMA is dry.

Continent[3]

Habitat conditions during the 2009 Waterfowl Breeding Population and Habitat Survey were characterized by above-average moisture across the southern portions of the traditional survey area, good habitat in the eastern survey area, and late spring conditions across northern survey areas. The total pond estimate (Prairie Canada and U.S. combined) was 6.4 ± 0.2 million. This was 45% above last year's estimate of 4.4 ± 0.2 million ponds and 31% above the long-term average of 4.9 ± 0.03 million ponds.

Conditions across the Canadian prairies improved in 2009, with the exception of southern Alberta. The 2009 estimate of ponds in Prairie Canada was 3.6 ± 0.1 million. This was a 17% increase from last year's estimate (3.1 ± 0.1 million) and was similar to the 1955-2008 average (3.4 ± 0.03 million). The prairie parklands received below-normal precipitation but waterfowl habitat in this area continued to benefit from above-normal precipitation received in 2007 and was classified as fair to good. Significant improvements in wetland numbers and conditions occurred in the U.S. prairies during 2009. The 2009 pond estimate for the north-central U.S. of 2.9 ± 0.1 million was 108% above last year's estimate (1.4 ± 0.07 million) and 87% above the long-term average (1.5 ± 0.02 million). Considerable precipitation in late spring 2008 and above-normal precipitation over the fall and winter recharged wetlands across the Dakotas and eastern Montana. Drier conditions were noted in western Montana and southeastern South Dakota.

In the bush regions of the traditional survey area (Alaska, Yukon, Northwest Territories, northern Manitoba, northern Saskatchewan, and western Ontario), spring breakup was delayed as much as three weeks in 2009. Most of the large lakes across the region remained frozen in early June, whereas smaller habitats, such as beaver ponds, were open. Overall habitat conditions in northern Alberta and the Northwest Territories, and most of Alaska were rated as good. Below-average precipitation through northern Saskatchewan and portions of northern Manitoba negatively affected smaller ponds.

The boreal forest of the eastern survey area was generally in good condition this spring, although northern survey areas in Ontario, Quebec, and Labrador experienced a very late spring. Above-average snowfall was recorded from Maine to the Maritimes, but average spring temperatures prevented the flooding that was experienced in 2008, resulting in good-to-excellent waterfowl habitat in 2009. Good-to-excellent waterfowl habitat existed through New York and much of Quebec and Ontario. Although overall habitat conditions were good in the eastern survey area, flooding from a series of major storms in southwestern Ontario during mid May and persistent winter conditions in the James and Hudson Bay Lowlands may have reduced habitat quality in those areas.

[3] Direct text from: Zimpfer, et.al. 2009. Trends in Duck Breeding Populations, 1955-2009. U.S. Fish & Wildlife Service, Laurel, Maryland, USA.

STATEWIDE SUMMARIES FOR UPLAND GAME SPECIES

Report by: Shawn Espinosa, Upland Game Staff Specialist

Sampling Methods

In 2006 the Nevada Department of Wildlife began transitioning from the antiquated FG08 system previously used to determine small game harvest. This system was based on sampling a proportion of all hunting license holders in order to achieve a 10% sample from which expansion factors for each species were derived. Since 2006, we have strived to obtain a significant sample size from those hunters who actually purchased an Upland Game Stamp. A sample pool was recognized from those hunters who purchased the Upland Game Stamp privilege online as records of names and addresses were stored electronically. Data obtained from questionnaires sent to these individuals likely allows for more accurate sampling and derivation of harvest. Expansion factors are now based on the total number of hunters reporting that they hunted for a certain species against the total number of upland game stamps purchased (whether online or physical). This also is thought to be more accurate than the previous sampling scheme.

In addition to these changes in methodology, the Upland Game and Waterfowl Questionnaire has been modified over this time frame (2005-2009) to more accurately account for lightly hunted species, or those species that we wished to gain more information. These include species such as mountain quail, ruffed grouse, pygmy rabbit and white-tailed jackrabbit. Low sample sizes through lack of hunter effort and participation as well as hunter misidentification continue to make it difficult to determine reasonable harvest estimates for these species. However, consistency in methodology will likely lead to some insight regarding population trends. Also, many questions were reworded to be clear and less confusing.

GREATER SAGE-GROUSE

Season Structure and Limits

There were three separate season structures for the general sage-grouse hunt during the 2008-09 season with an additional special sage-grouse season for the Sheldon National Wildlife Refuge. In the Western Region, a 10-day season was held from October 5-14 for most open hunt units with the exception of hunt unit 184 in Churchill and Lander Counties where a 2-day season was held from October 4-5. A 15-day season was held in the Eastern and Southern Region from September 25-October 9. The earlier season dates were set to encourage hunter participation in remote areas that traditionally received little hunting pressure. Two hunt periods were held for the Sheldon Special Sage-grouse Hunt. The first hunt period was held September 20-21and the second was held September 27-28. The daily and possession limit for all hunts was 2 and 4 respectively.

Harvest and Effort

The estimated statewide sage-grouse harvest for the 2008-09 hunting season was 5,775 birds. This represented an 18% increase from the 2007-08 hunting season harvest of 4,897 birds and a 29% increase over the 10-year average. An estimated 3,271 sportsmen took to the field last season which represented the greatest sage-grouse hunter participation since 1998. These hunters spent approximately 6,985 days in the field (2.1 days/hunter). An estimated 0.83 birds were harvested per hunter day which was 18% better than the previous season, but approximately 5% less than the 10-year average.

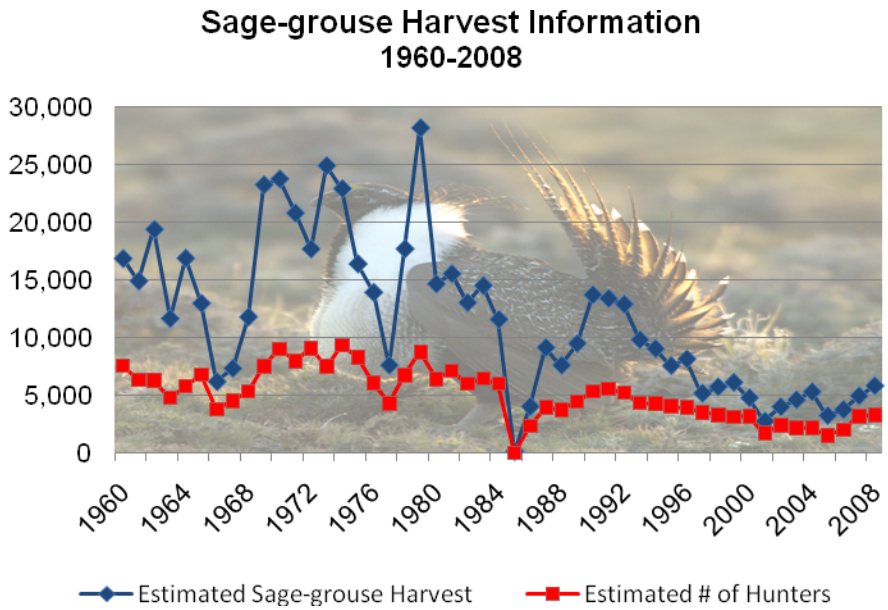


Figure 1. Estimated sage-grouse harvest and number of hunters from 1960-2008.

Population Status

The most preferred method to determine trends in sage-grouse populations is through the use of lek counts. Lek counts are conducted from early March through mid-May of each year. Multiple reliable leks are monitored several times throughout the spring breeding period. These leks are known as “trend leks”. The peak numbers of males attending these trend leks are used to determine population performance from year to year.

Many sage-grouse populations throughout Nevada showed increasing trends from 2002-2006, with some observations of record male attendance at many leks throughout the state. However, since 2006, sage-grouse populations have declined precipitously in several areas. Wildfires that occurred from 1999-2007 diminished the amount of available sage-grouse habitat (~22 million acres) by as much as 2.5 million acres, or 12%. Also, a total of 307 leks were actually burned over in these fires of which 131 were classified as active.

In addition to this direct habitat loss, weather patterns during 2006 and 2007 were not conducive to sage-grouse production or recruitment. These parameters are measured through the collection of wings during the hunting season. Production for 2006 was estimated at 1.13 chicks per hen while the 2007 estimate was the lowest on record at 0.58 chicks per hen. The production value thought to maintain stable to slightly increasing populations is 2.25 chicks per hen (Connelly et al. 2000); however, that estimate may be high for Nevada as estimates rarely exceed 2.10 chicks per hen. Additionally, sage-grouse nest success can also be evaluated through examination of sage-grouse wings and provides a good indication of early production. In 2006 and 2007, estimated nest success was 31% which was approximately 10% less than the 7-year average of 41%.

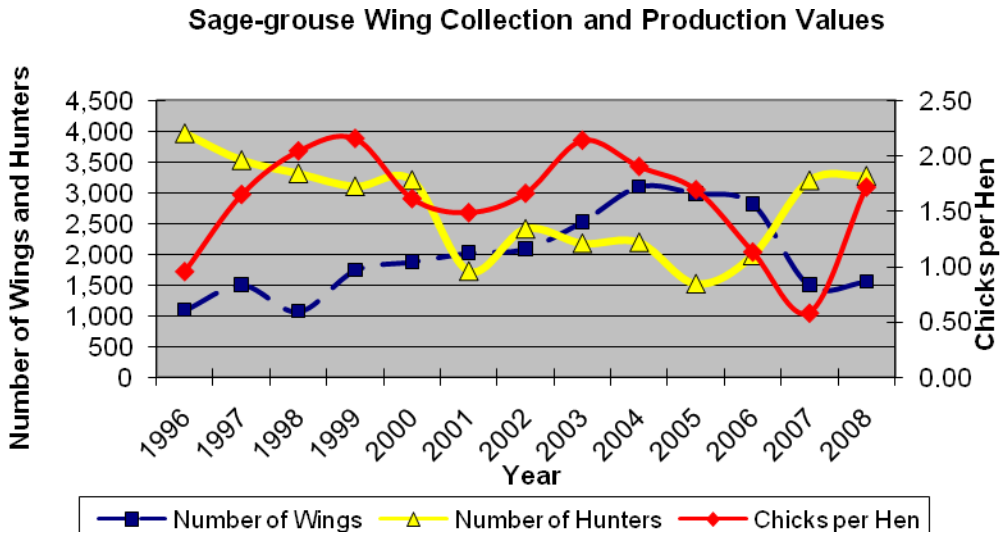


Figure 2. Sage-grouse production values in relation to wing collected and hunter numbers.

The projection for the 2009-10 season is for sage-grouse populations to experience a slight upward trend considering the improvement in production exhibited in 2008 as well as the expectation that production and recruitment in 2009 will also be an improvement over 2006 and 2007 numbers. Sage-grouse hunters can expect to have a good season in areas that have not experienced substantial habitat losses (largely due to wildfire).

FOREST GROUSE

(Blue and Ruffed Grouse)

Season Structure and Limits

The 2008 forest grouse season, which included blue (Dusky and Sooty grouse) and ruffed grouse, was 122 days long extending from September 1st through December 31st. The season was open statewide with no discrepancies between regions or Counties. Daily limits were set at 3 birds and possession limits were twice the daily bag. Limits were for single species or in the aggregate.

Blue Grouse

Harvest and Effort

During the 2008 hunting season, an estimated 1,670 hunters pursued blue grouse taking 1,936 birds. Hunters spent an estimated 3,970 days in the field 2008. These figures show that each hunter bagged 1.2 birds for their efforts and that each bird took approximately 2 days to harvest. The total harvest is approximately 28% greater than the 10-year average harvest of 1,516 birds. However, numbers of hunters and hunter days is 63% and 68% greater than the 10-year average respectively. Some of this is likely due to the increased season length from 91 days to 122 days.

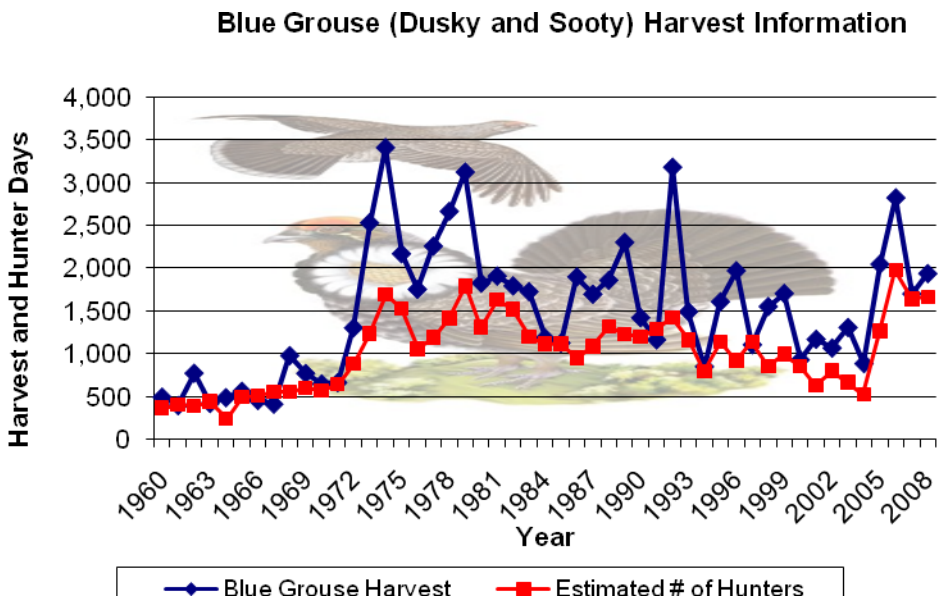


Figure 3. Estimated blue grouse harvest and number of hunters from 1960-2008.

Population Status

Blue grouse are a somewhat secretive species and difficult to sample because of the habitat types in which they reside. Point counts in the spring can be effective for Sooty Grouse residing in the western portion of Nevada because of the auditory range of their call or "hooting". However, the same cannot be said of Dusky Grouse in central and eastern Nevada. In 2007, the Nevada Department of Wildlife began requesting wings for analysis from hunters. Only 34 wings were obtained in 2007. Analysis of the rather small sample showed that production was a rather paltry 0.79 chicks per hen. Alternatively, 90 wings were collected in 2008 with a much greater emphasis on collection, especially within White Pine County. Production estimates for 2008 were much improved at 2.52 chicks per hen. As was the case for most other upland game birds in Nevada, 2006 and 2007 were rather poor production years. It appears that production in 2008 helped compensate for the lack of recruitment during these years. Long term trends are normally obtained from harvest estimates; however, as figure 2 depicts, blue grouse harvest is strongly correlated with the estimated number of hunters. So, harvest may not truly indicate how blue grouse populations are performing.

Ruffed Grouse

Harvest and Effort

Harvest figures for ruffed grouse were not accounted for separately until 2005. Modifications in the Small Game Questionnaire were necessary in order to determine harvest and hunter effort for this species. During the 2008-09 hunting season, an estimated 309 hunters took to the field to pursue ruffed grouse. These individuals spent 670 days in the field harvesting an estimated 309 birds.

Population Status

Only two counties in Nevada currently have ruffed grouse populations, Elko and Humboldt. Population levels and harvest continue to be greater in Elko County because of the amount of suitable habitat available. Increases in estimated harvest suggest that ruffed grouse populations are at least sustaining

themselves in these counties, if not increasing in number. These birds reside in heavy cover, often making harvest difficult as evidenced by the estimated 2 days per bird effort. With a more aggressive trap and transplant program for this species, it is believed that other populations can be established across northern and central Nevada.

CHUKAR PARTRIDGE

Season Structure and Limits

The 2008-09 chukar season extended from October 11, 2008 through February 1, 2009 for a total season length of 114 days. The season was open statewide with no discrepancies between regions or counties. The daily and possession limits for chukar were 6 and 18 respectively. Limits applied as a single species or in the aggregate with Gray (Hungarian) Partridge. In addition to the general season, a youth season was also held for one weekend from September 27-28, 2008. Daily and possession limits for this hunt were 6 and 12 respectively.

Harvest and Effort

An estimated 61,307 chukar were harvested during the 2008-09 hunting season. This was essentially the same harvest as that reported for the 2007-08 season (61,153). This harvest is 26% less than the 10-year average harvest of 83,166. With respect to numbers of hunters, 11,735 individual chukar hunters were estimated to pursue the species in 2008-09. This figure is approximately 19% less than the previous year's estimated hunters, but still almost 4% greater than the 10-year average number of hunters. Likewise, the number of hunter days was 23% less than the prior year; but 2% greater than the 10-year average.

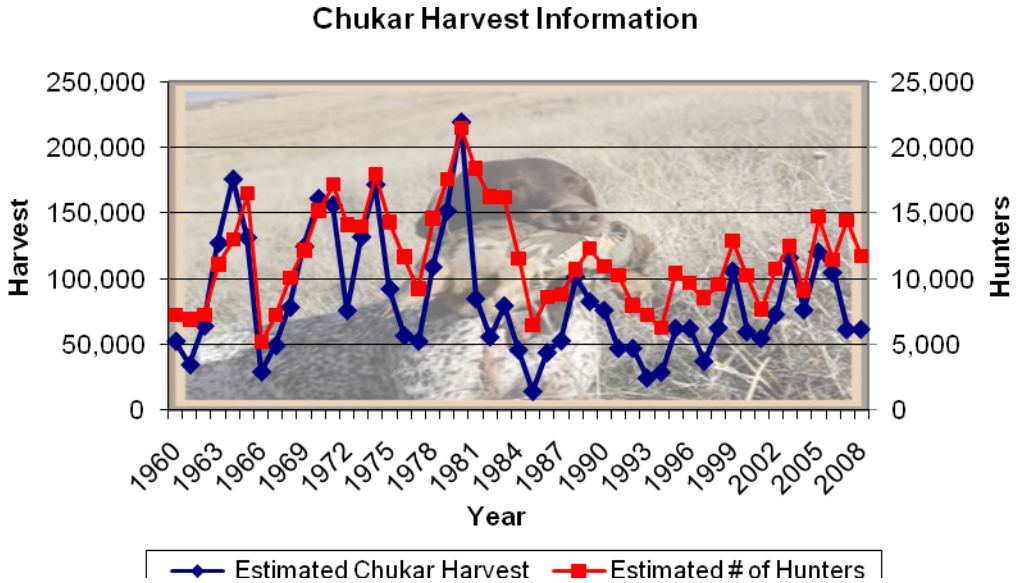


Figure 4. Estimate chukar harvest and number of hunters from 1960-2008.

On a positive note, both the number of birds per hunter (n=5.2) and the number of birds per hunter day (n=1.3) improved over 2007-08 hunting season values (n=4.2 and n=1.0 respectively). So, even though there were fewer hunters than the previous season, they were mildly rewarded with more birds per unit of effort and likely experienced reduced competition when in the field.

Population Status

With current harvest levels over the last two years at 26% below the 10-year average coupled with aerial chukar counts re-instituted in 2008 (with funding provided by the Nevada Chukar Foundation) that reflected reduced densities, it is safe to say that base populations of chukar have declined. This is largely due to poor production in both 2006 and 2007. Moderate reproduction and recruitment was noted in 2008 that stabilized chukar populations. Moist late spring and early summer conditions in 2009 led to good forb and grass growth which should translate into above average chukar production. Early anecdotal reports are reflecting this throughout the state.

CALIFORNIA QUAIL

Season Structure and Limits

The 2008-09 hunting season for California, Gambel's, Scaled and Mountain quail extended from October 11, 2008 through February 1, 2009 for a total season length of 114 days. Hunting seasons were open statewide for these species, allowing hunters to pursue these species wherever they occurred across the state. Limits for quail remained at 10 per day and 20 in possession with the exception of mountain quail where no more than 2 per day or 4 in possession were allowed. In addition to the general season, a youth season was also held for one weekend from September 27-28, 2008. Daily and possession limits for this hunt were 10 and 20 respectively. This hunt was open to hunters 15 years of age or younger only and who must be accompanied by an adult who was at least 18 years old at the time of the hunt.

Harvest and Effort

The estimated harvest of California Quail during the 2008-09 season was 36,614 birds. This reflected a 24% increase in harvest from the previous year and a 51% increase over the 10-year average of 23,928. In terms of hunter participation and effort, an estimated 5,004 hunter hunted California Quail in 2008 spending approximately 20,217 days in the field. The total number of hunters represented a 23% increase over the previous year as well as a 60% increase over the 10-year average. Hunters averaged approximately 7.6 birds over the course of the season and 1.8 birds per day.

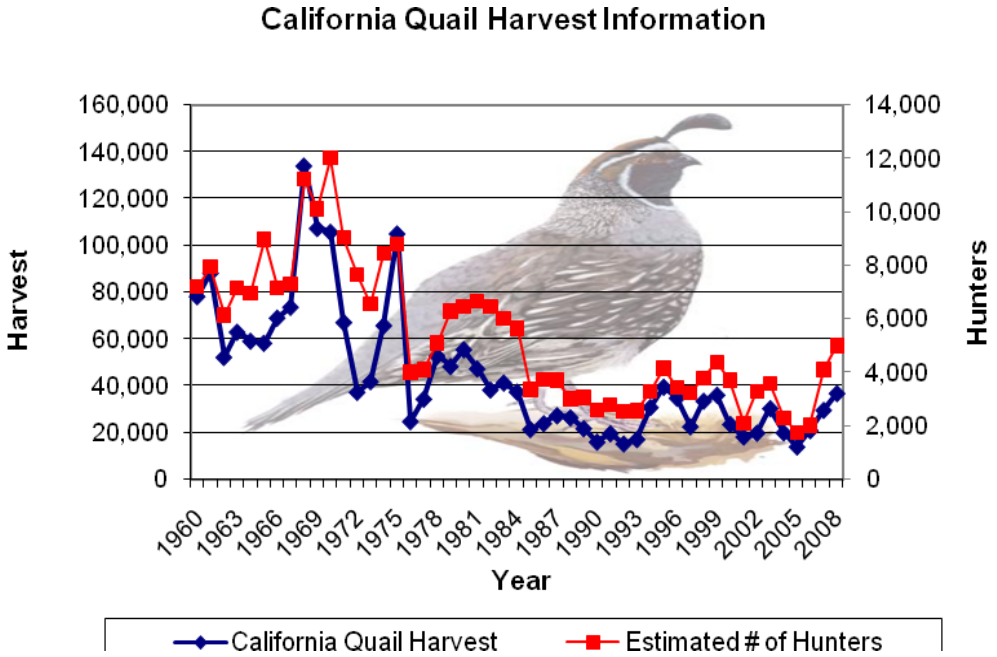


Figure 5. Estimated harvest of California Quail and number of hunters from 1960-2008.

Population Status

Long-term harvest data provides the only standard for which to gage California quail populations. Recent figures suggest that California quail populations are expanding in both population size and area as harvest is reported in counties that historically did not have populations, or had very small populations. A factor that may be responsible for the increased harvest and hunter participation are California quail populations living on the periphery of larger urbanized areas such as Reno and Carson City. Urban settings often provide quail with adequate thermal cover and forage during the winter and their association with edges of population centers often provide hunters with easy access, in other words, hunters don't have to drive far to be able to hunt quail, in many cases. Also, the Nevada Department of Wildlife has been actively relocating California quail from urban and suburban areas to remote locations with suitable habitat throughout the state. These efforts have both augmented and expanded populations with apparent success.

GAMBEL'S QUAIL

Season Structure and Limits

The 2008-09 hunting season for California, Gambel's, Scaled and Mountain quail extended from October 11, 2008 through February 1, 2009 for a total season length of 114 days. Hunting seasons were open statewide for these species, allowing hunters to pursue these species wherever they occurred across the state. Limits for quail remained at 10 per day and 20 in possession with the exception of mountain quail where no more than 2 per day or 4 in possession were allowed.

Harvest and Effort

During the 2008-09 hunting season, a total of 16,516 Gambel's quail were taken by an estimated 3,258 hunters. Harvest increased by almost 12% over the previous year; however, hunter numbers for the species declined by 17% (n=3,928 in 2007-08). Birds per hunter (n=5.1) and birds per hunter day (n=1.3) increased substantially over previous season numbers; however, these figures are still well below (-38% and -35% respectively) the 10-year average figures.

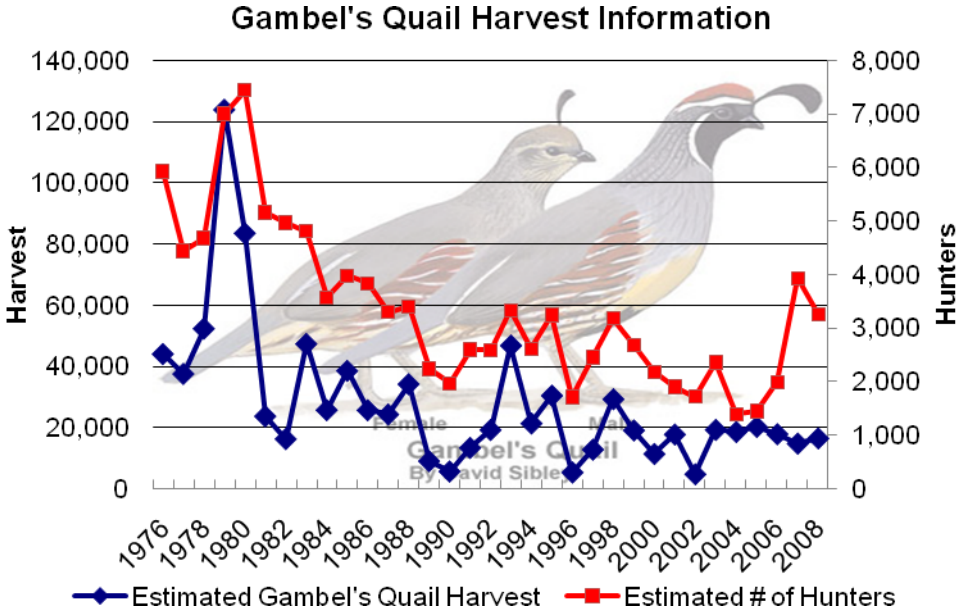


Figure 6. Gambel's quail harvest and hunter participation from 1960 through 2008.

Population Status

Gambel's quail populations exhibit population fluctuations over time. In some cases, these fluctuations can be fairly drastic and the cycle has often been termed "boom or bust". The average annual harvest from 1980 through 2007 is an estimated 23,451 birds, which places last season's harvest at 30% below average. Poor winter and spring precipitation receipts during 2006 and 2007 in the southern portion of Nevada did not afford Gambel's quail with habitat necessities that would lead to good production and recruitment. Conditions improved in 2008 and at least some Gambel's quail broods were noted; however, brood size was average at best. The projection for 2009 is optimistic as substantial spring rains have led to improved habitat conditions. Additionally, biologists have noted several broods associated with guzzlers as well as large number of birds using them in general. The 2009-10 hunting season forecast is considered to be good and harvest is expected to increase over those levels recorded for at least the last three years.

RABBIT

Season Structure and Limits

The 2008-09 rabbit season extended from October 11, 2008 through February 28, 2009. The species included under this season included cottontail, pygmy, and white-tailed jackrabbit. Limits for these species remained and 10 per day and 20 in possession and could consist of a single species, or an aggregate of species not exceeding those limits.

Harvest and Effort

A total of 15,878 rabbits were harvested during the 2008-09 hunting season which is consistent with the 10-year average harvest of 15,952. An estimated total of 2,691 hunters pursued rabbits last season taking 1.2 rabbits per day. The total number of hunters was 18% greater than the 10-year average. Rabbit hunters spent an estimated 13,611 days in the field last season. Overall the long-term trend in hunter participation and harvest (both being strongly linked) is down.

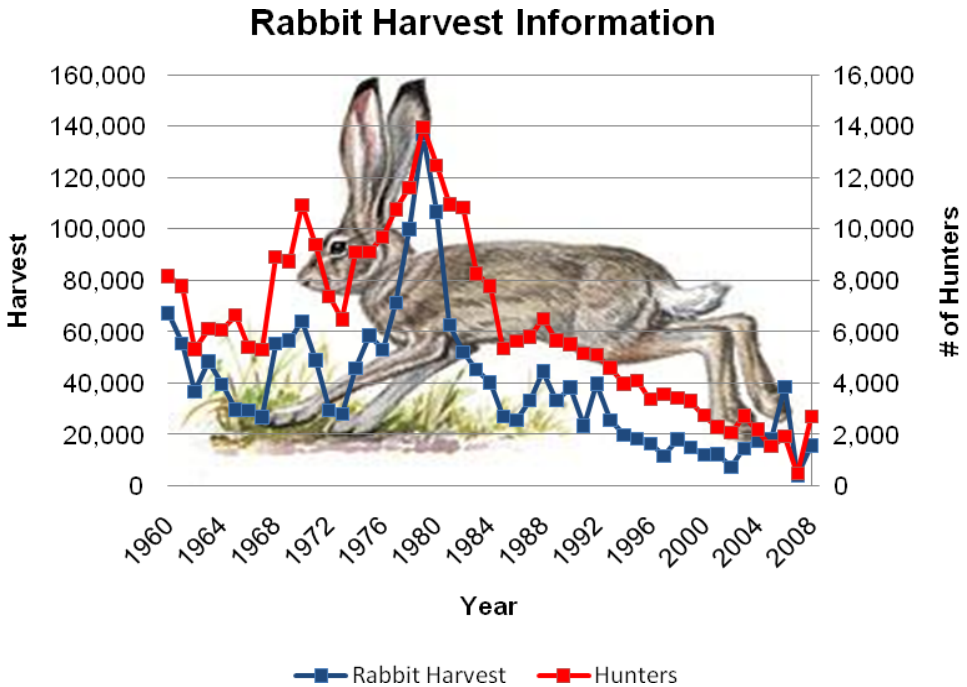


Figure 7. Hunter participation and harvest from 1960 through 2008.

Population Status

Harvest data suggest that rabbit populations recovered to average levels in 2008 after what appeared to be a fairly significant decline in 2007. As with most other upland game populations, look for the 2009-10 season to be better than the last three.

STATEWIDE SUMMARY OF MIGRATORY GAME BIRDS

WATERFOWL

Harvest

Pursuant to the guidelines of Adaptive Harvest Management (AHM), the frameworks established by the United States Fish & Wildlife Service (FWS) for the 2008-09 duck hunting season allowed for a liberal season length and general bag limit, with specific bag limit restrictions for duck species that continue to remain below continental objectives. The Nevada Board of Wildlife Commissioners (Commission) adopted the full number of days (107) for Nevada allowed under the framework. Since 1997 'liberal' regulations frameworks have been allowed under (AHM) which modifies season length and bag limit prescriptions appropriate to observed changes in waterfowl abundance and expected productivity in North America.

Nevada's 2008-09 duck hunting season began on October 11th for the entire state and extended to Saturday, January 24th, 2009 in Northern Nevada and Friday January 23rd in Southern Nevada. These closures accommodated days set aside for youth waterfowl hunting, which was a single day in the Northern Zone (September 27, 2008) and two days in the Southern Zone (January 31 & February 1, 2009). The Commission adopted a later opening date (November 1st, 2008) for the Moapa Valley portion of the Overton Wildlife Management Area.

Species restrictions were in place last year with hunters allowed to take no more than two hen mallards, two redheads of either sex and one pintail of either sex. As a result of diminished observations of breeding canvasbacks within the traditional survey area, and the concurrent restrictions defined within the harvest strategy written for them, the season was closed last year for this species. Scaup limits remained at three daily for the fourth consecutive year, but the dates that this species could be taken were reduced to remain compliant with the harvest strategy for this species. Hunters were permitted to take scaup within the bag beginning on Saturday, November 1st to the end of the general season.

Data obtained through the NDOW's Post-season Questionnaire is reported in table 1 and within the Appendix of this report. Within table 1, NDOW's findings are compared to the results of the FWS's *Harvest Information Program* (HIP) survey as published within its preliminary findings publication in July[4]. This survey is a mandatory reporting process that requires hunters to indicate their harvest and hunter efforts via telephone or online poll.

Table 1. Comparisons between HIP and Nevada Post-season Questionnaire estimates.

Year	Estimated Duck Hunters			Estimated Total Duck Harvest		
	HIP(1)	NV Questionnaire(2)	% Diff.	HIP	NV Questionnaire	% Diff.
2002	3,900	4,028	-3%	46,000	33,113	*+28%*
2003	4,200	4,298	-2%	50,200	44,022	+12%
2004	3,500	3,572	-2%	37,100	38,305	-3%
2005	3,600	3,960	-10%	49,600	56,428	-14%
2006	4,000	4,525	-13%	55,402	69,893	-26%
2007	2,900	4,039	-39%	43,800	45,459	-4%
2008	2,600	3,212	+24%	29,900	42,915	-44%

(1) Expressed as "Active Adult Hunters" within the HIP survey. (2) Figures from 2005 are individual hunters – see explanation in next section.

Both processes are expressions of median values and each is accompanied with a range of figures (standard errors), which are not depicted, that are broad or narrow depending upon the statistical power of the collected data. Biases in both survey methods have been detected and both agencies are working toward correcting these.

[4] Richkus, K.D., et.al. 2009. Migratory bird hunting activity and harvest during the 2007 and 2008 hunting seasons: Preliminary Estimates. U.S. Fish and Wildlife Service. Laurel, Maryland. USA

DUCKS & MERGANSERS

The general limit was seven ducks per day with the species restrictions previously described. Table 2 describes harvest and effort statistics compiled trough Nevada's post-season questionnaire.

Table 2. Statewide duck & merganser harvest - from post-season questionnaire.

	STATEWIDE TOTALS:			Percent Change	
	2007	2008	10-Yr Avg.	Prev. yr.	vs. Avg.
No. of Ducks & Mergs.	54,459	42,916	58,708	-21.2%	-26.9%
No. of Hunters*	4,638	4,898	5,271	5.6%	-7.1%
No. of Days	24,445	26,021	30,202	6.4%	-13.8%
Birds / Hunter	11.74	8.76	10.75	-25.4%	-18.7%
Birds/Hunter Day	2.23	1.65	1.90	-26.0%	-13.0%
Individual Hunters*	4,038	3,212	--	-21.6%	--

* see explanation below

Under two current post-season questionnaire analysis protocols, biologists can make calculations of both unique individual hunters and combined, or cumulative, total hunters. In the table above, the number of hunters in the second row represents the sum of all hunters hunting in all counties. Cumulative hunters are represented for each county within all rows of the questionnaire tables for waterfowl and migratory birds (see page Q-1). The totals at the bottom of the columns for 2007 & 2008 represents the estimated total of all *individual* hunters, based upon the reported sales of electronic duck stamp privileges and a proportion of all paper duck stamps sold. It is the proportion of paper stamp sales that represents the largest bias in calculating hunter numbers, a key factor in computing the expansion factors that produce all the estimated figures within all of the questionnaire tables. NDOW continues to investigate opportunities to reduce or eliminate this bias.

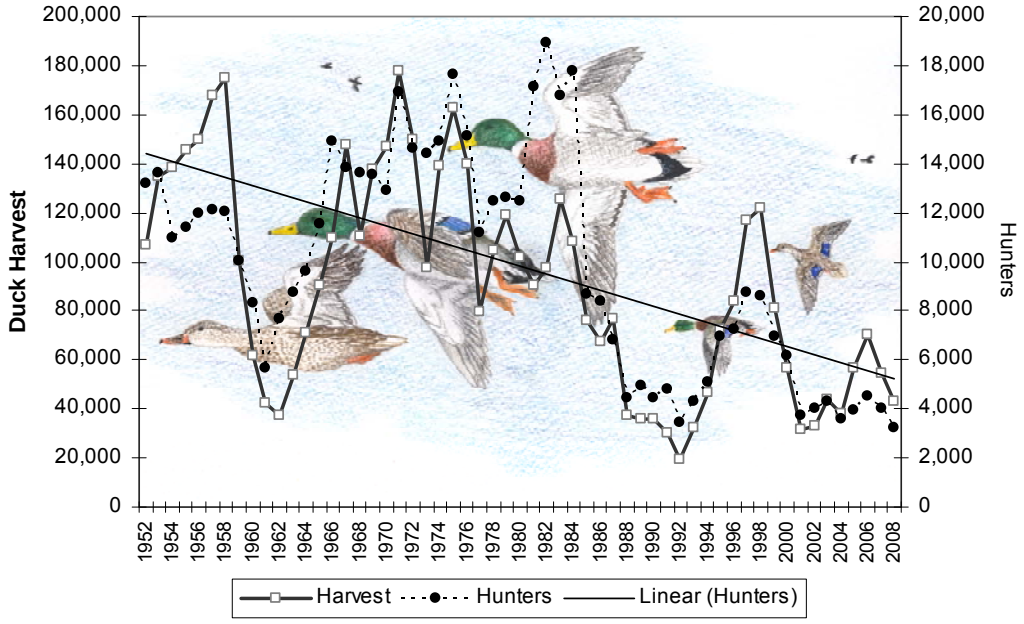
The estimated 'individual hunters' figures are better indicators of what changes in participation have occurred between sample years. There were statistically fewer hunters during the 2008-09 season than in the previous year. Because individual hunter data has only been collected from the past three years' questionnaires, one cannot make a long-term comparison. Though difficult to prove scientifically, an examination of the cumulative hunter and hunter day totals suggests that even though individual hunters diminished, they tended to put in a lot of effort and hunted in more places than they might have in a *average* hunting season. Based upon an examination of a sample of the active waterfowl hunting respondents, approximately 30% indicated they hunted ducks in more than one county in 2008-09. Many respondents hunted for ducks in excess of three counties.

This supposition is also supported by a comparison of hunter days, which remained fairly static, measured against the previous year and not particularly diminished versus the previous 10-year average. But harvest was below average, thus birds per hunter and per hunter day significantly declined for the 2008-09 season. Both statistics were also lower by 18% and 13%, respectively, against their long-term averages (LTA). Hunters realized early on that they were in for a tough season and they worked hard and went to more places to seek success, though duck abundance in Nevada was not there to give them that sought after success.

A review of the wetland habitat condition report in last year's status report reveals a pessimistic outlook for duck numbers based upon habitat capacity. Evidently the prediction came true even though continental bird numbers increased during the summer of 2008. Late water delivers and less than full allocations hindered the production of foodstuffs sought by migrating and wintering waterfowl. They arrived, found that their energy demands could not be supported with the forage available and they left. Sporadic days of good shooting likely coincided with recent arrivals of migrants, which are committed to searching for forage by flying and in the doing are exposed to hunters. This is not particularly phenomenal and is characteristic of all hunting seasons. Supportive data is found within the Carson Lake weekly harvest totals, which demonstrate improved duck per day figures in January at the commencement of the return migration.

Figure 1 describes the trends for duck harvest and hunter numbers in Nevada based upon NDOW's post season questionnaire data. The precipitous decline of ducks in the mid-1980's is correlated with the decline in the continental breeding habitat. Similar habitat trends affected Nevada, though the state did have very good precipitation in the late 1980's – a time when Nevada's deer population had its last major eruption. Marshes benefited from the same precipitation that helped terrestrial species flourish. However, without the migration from northerly breeding grounds, hunters had lots of water to set up a blind, but not much to shoot at. Since 1990, Nevada has seen two peaks in harvest and hunter participation. Both are principally attributed to short term precipitation-driven habitat reprieves but again Nevada's habitat is not linked to continental duck numbers. Last year, the fall flight coming out of breeding grounds in Alaska and Canada was predicted to be high, but without the habitat, Nevadans were unable to capitalize on it.

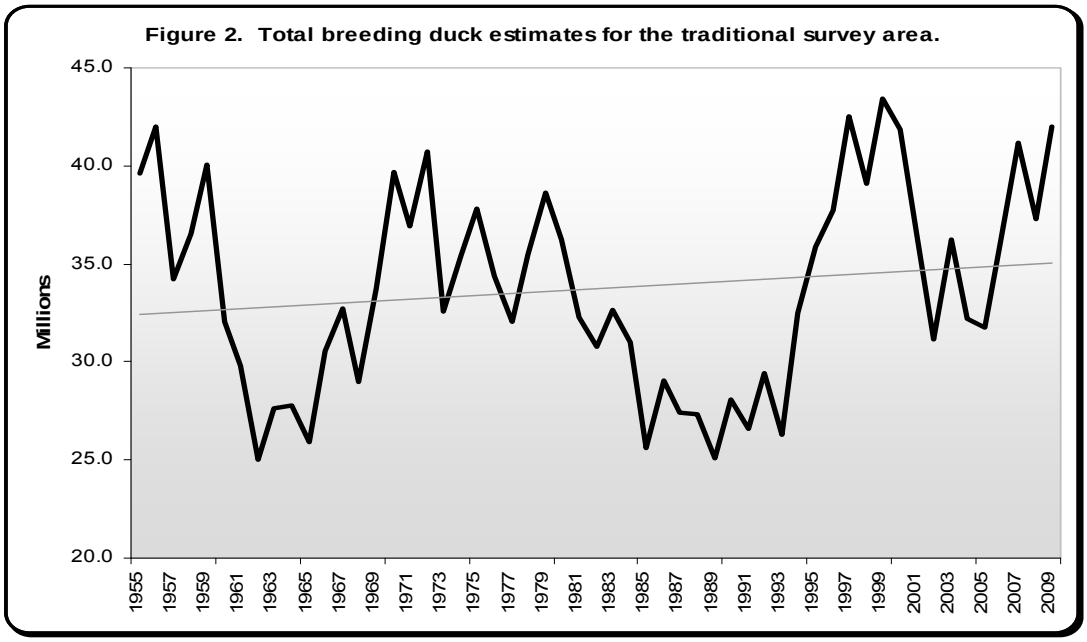
Figure 1. Nevada Duck Hunting Statistics 1952-2008
Source: Nevada Post-season Questionnaire



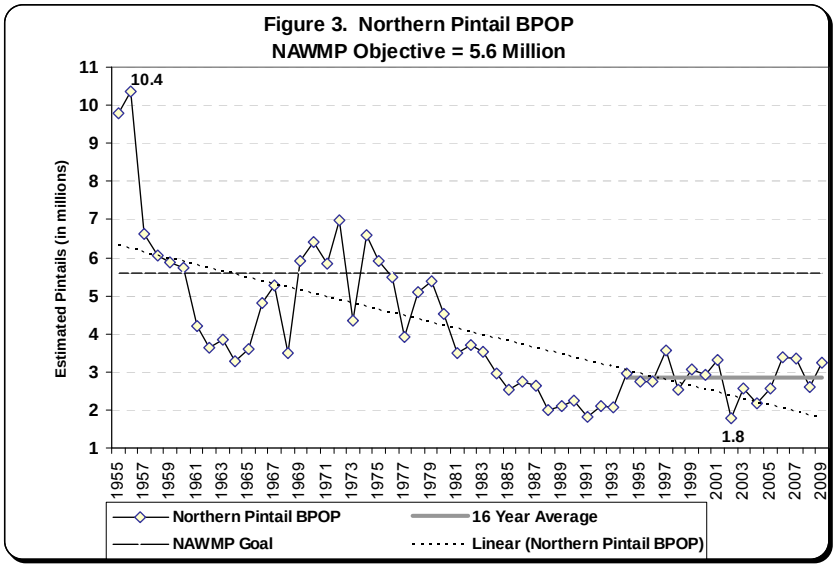
Another factor that probably contributes to the misalignment of Nevada's hunter and harvest statistics with continental breeding numbers is the overall attrition of duck hunters. Despite recoveries of continental duck abundance, and occasional short-term resurrection of Nevada's marsh habitat, the hunter numbers that the state used to support just aren't being revived. For much of the time that records have been kept, Nevada's harvest trends depicted above were somewhat aligned with continental breeding duck population tendencies (Figure 2). As stated previously in this section of the report, the data points for the past three years represent individual numbers rather than cumulative; nevertheless, the trend is abundantly apparent.

It is recognized that smaller scale local climatic and precipitation regimes ultimately affect Nevada's harvest and hunter participation statistics, but Nevada waterfowlers have diminished even as continental duck numbers are exceeding long-term averages. In other words, waterfowl hunter numbers are not corresponding to overall continental duck abundance – hunters left Nevada's marshes in large numbers during the past decade and a half and they haven't come back. Last year was not the year to entice them back and this year, though ducks will be abundant in the larger scale, habitat conditions, at least in the western part of the state where the largest area of wetland habitat in Nevada exists, will not be vast nor will they be fruitful. The ducks won't linger.

Across the continent, state and federal waterfowl managers of three countries are contemplating a revision to the North American Waterfowl Management Plan (NAWMP). This revision will attempt to define management coherence between duck population data, habitat conditions and hunter perceptions in an attempt to establish the future directions for habitat and population management. The performance of specific duck stocks such as pintail, canvasback and scaup will be a key consideration in these deliberations. Harvest strategies for these species are constrained by BPOP objectives established in the original NAWMP in the mid-1980s. Those goals were established at a time when duck numbers were on the decline following peaks observed in the 1970s. The harvest strategies attempt to conserve numbers by restraining harvest. Invoking smaller bag limits and shorter seasons are prescriptions to achieve lower mortality attributed to the gun. Some managers have expressed concerns that the complex regulations needed to control harvest on these stocks have affected hunter retention and recruitment. Accordingly, this will be a key analytical element in the revision.



It is not yet determined if the revision will address modifications to the BPOP objectives. The pintail population seems to have remained static at a lower population level (see figure 3) over the past 16 years. If this represents a shift in carrying capacity within breeding habitat, then this could possibly stimulate a revision of the pintail objective and thus affect a relaxation of the harvest constraint. Then regulatory impediments may be lessened. Managers in Nevada predict that a return to higher pintail limits could stimulate greater hunter participation of duck hunters.



GEESE

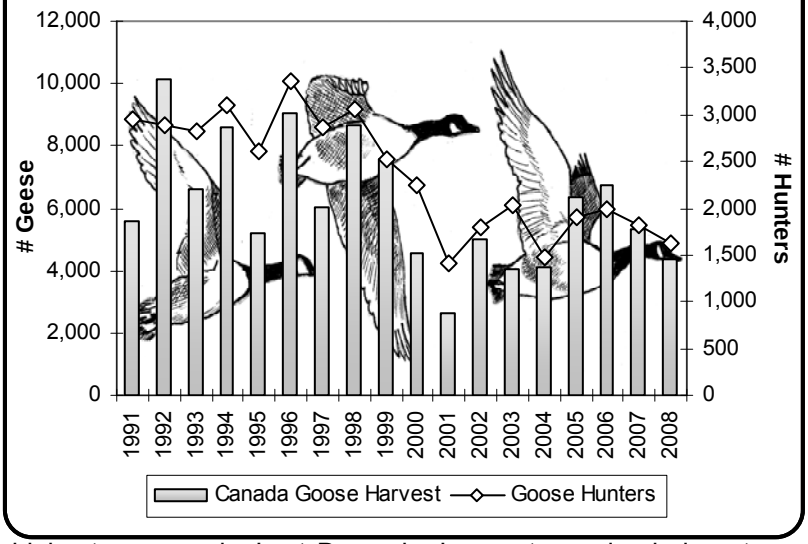
Nevada's statewide goose hunting season commenced on October 25th, 2008 and concluded on January 25th, 2009 in both zones. Overton WMA had a one day season on October 25th and goose hunting resumed with the duck opener on November 1st. Limits for the Canada and white-fronted geese were three daily, species singly or in the aggregate. Frameworks for white geese allowed for expanded limits thus the white geese (snow and Ross's geese) limits were ten daily, seasons running concurrent with the dark goose seasons.

Table 3. Statewide dark and white goose harvest - from Post-season Questionnaire.

	STATEWIDE TOTALS:			Percent Change	
	2007	2008	10 Yr. Avg.	Prev. Yr.	vs. Avg.
Dark Geese Harvest	5,339	4,384	5,490	-17.9%	-20.1%
No. of Hunters	1,819	1,624	2,024	-10.7%	-19.8%
Light Geese Harvest	414	325	586	-21.5%	-44.5%
No. of Hunters	467	448	807	-4.1%	-44.5%
TOTAL GEESE:	5,753	4,709	6,076	-18.1%	-22.5%

Within the Pacific Flyway, the two populations of large-bodied Canada geese (*Branta canadensis moffiti*) have greatly expand. Migrating geese that originate from both the relatively sedentary Pacific Population and the more widespread and migratory Rocky Mountain Population comprise the majority of the hunter's bag in Nevada. There are locally produced geese hatching within Nevada's wetlands and translocated nuisance adult geese and goslings that contribute to the harvest totals but these latter sources pale compared to numerical tide of migratory geese that bred and hatched elsewhere. Most of Nevada's Canada geese harvest occurs in western Nevada (see page Q5) within those counties with large amounts of cultivated fields or pasture support the greatest abundance of geese. Again, Churchill County leads all counties in percent of harvest. In this county, geese are taken both incidental to duck hunting in wetlands like Stillwater NWR and Carson Lake and out of decoy spreads set out in agricultural fields. Douglas County remains high in kill per hunter and kill per hunter day statistics.

Figure 4. Canada Goose Harvest in Nevada



In the Pacific Flyway, white goose numbers are monitored through population indices measured in December at locations where the birds concentrate, such as the Skagit-Fraser delta near Vancouver and in the Central Valley of California. White geese do not concentrate in great number away from the coastal states. In 2007, the index exceeded one million birds, the highest on record. Last December's count remained close to a million birds. Lesser sized flocks of white geese commonly move through the Pacific Flyway interior states, including Nevada, during the spring return migration. Therefore frameworks have been liberalized to allow short spring seasons with 10 bird daily bag limits. Nevada has not investigated the consistency of these return migrations both in terms of numbers and duration. This would be necessary to recommend a spring season in Churchill County. White goose harvest in Nevada continues to be mostly incidental to other waterfowl hunting activities.

TUNDRA SWAN

Last year's swan season commenced on October 25th and concluded on January 4th, 2009. Permits were available during an initial draw period which had an application deadline of September 19th, 2008. Only 173 applications for the 650 permits (27%) were posted for the initial draw. Remaining permits were available online, over the counter or through the mail after October 6th through the last Friday of the hunting season. An additional 362 permits were sold after the initial draw bringing the total permit sales to 535. This total included 100 second permits, thus there were 435 total permitees last year. Total sales for the 2008-09 season were significantly lower than the previous year, when the allocation was fully subscribed. Sales after the initial draw are stimulated by observed swan abundance in western Nevada Humboldt Sink was dry and swan numbers in Lahontan Valley were not very impressive in comparison to previous years, last year especially. Satellite tracking of individual swans marked in Alaska depicted flight paths that completely over flew Nevada in most cases. As noted in the duck discussion, the habitat was not fully wet and the forage, sago in particular for swans, was not abundant enough to cause swans to linger. Accordingly, hunters were not stimulated to pick up the remaining permits.

Table 4. Past ten years of Nevada swan harvest.

Year	Tags / Permits Purchased	Percent Participating	Reported Harvest	Expanded Hunter Days
1999	518	84%	193	1,817
2000	493	63%	71	1,242
2001	308	78%	58	1,171
2002	273	69%	40	886
2003	298	74%	71	802
2004	330	67%	77	892
2005	370	73%	92	934
2006	605	73%	147	2,014
2007	650	77%	200	1,996
2008	535	75%	124	1,597
'69-'07 Avg.	443	74%	115	1,252

Continuing a flyway commitment to detect trumpeter swan harvest, NDOW required all successful hunters to have their swan and permit validated within five days of the harvest date. Agency personnel inspected swans at specific NDOW offices where they could examine the birds' bills and feather coloration. This scrutiny is necessary to detect occurrence of protected trumpeter swans. In this manner, incidental take can be documented and its impact to the latter species can be assessed. Additionally, tundra swans are considered a primary candidate species for exposure to or infection from the HPAI H5N1 virus. Personnel collected 57 samples from hunter-killed birds.

Last year juveniles made up only 17% of the total swan harvest (n=20), a figure that is well below the average of 33%. No trumpeter swans were taken in the 2008-09 season. Only 69% of permitees hunted last year, lower than the 73% average and probably a result of diminished swan numbers. Hunters reported taking 72% of swans at Stillwater NWR, higher than the LTA of 62%. Only one interesting anomaly in harvest derivation was observed – 10% of swans were killed at Mason Valley WMA. This location typically averages <5% of the total harvest.

Nonresidents accounted for 13% of all individual swan permittees last year. Seventy-eight percent of these were California residents.

Population Status

Each year the FWS conducts a continental assessment of the status of waterfowl[5]. The FWS follows established survey protocols to evaluate bird abundance and habitat conditions within traditional survey areas in the central and northwest portions of North America, known as the Prairie Pothole Region and the Canadian Parkland Region, and in Northwest Canada and Alaska. Service statisticians then incorporate these data into annual or multi-year population models.

Biologists estimated this spring's breeding duck population (BPOP) within the traditional survey area at 42.0 million birds. This total represents a 13% increase compared to the 2008 estimate and was primarily influenced by a 45% increase in observed ponds within prairie United States and Canada (n=6.4 million). The total duck BPOP estimate is 25% above the LTA, which is based upon surveys dating back to 1955 (see figure 2). This estimate is also one of the highest on record. Breeding population estimates are depicted below.

Table 5. Five-year Duck BPOP estimates (in thousands) for 10 species within the traditional survey area.

							% change	
Species	2005	2006	2007	2008	2009	LTA	v.2008	v LTA
Mallard	6755.3	7276.5	8307.3	7723.8	8512.4	7511	10.2%	13.3%
Gadwall	2560.5	3386.4	3335.3	2612.8	3053.5	1763	16.9%	73.2%
Pintail	2560.5	3386.4	3335.3	2612.8	3225	4056	23.4%	-20.5%
BW Teal	4585.5	5859.6	6707.6	6640.1	7383.8	4607	11.2%	60.3%
GW Teal	2156.9	2587.2	2890.3	2979.7	3443.6	1920	15.6%	79.4%
Wigeon	2225.1	2171.2	2806.8	2486.6	2468.6	2609	-0.7%	-5.4%
Shoveler	3591.5	3680.2	4552.8	3507.8	4376.3	2273	24.8%	92.5%
Scaup	3386.9	3246.7	3452.2	3738.3	4172.1	5090	11.6%	-18.0%
Redhead	592.3	916.3	1009	1056	1044.1	645	-1.1%	61.9%
Canvasback	520.6	691	864.9	488.7	662.1	569	35.5%	16.4%

Almost all species increased in number compared to the previous year. Most impressive to managers was the increase in pintails, a species which is heavily dependent upon prairie potholes. However, the potholes were the product of recent precipitation. Many of the potholes are amidst intensely cultivated land. Other ponds existed in areas that had been devastated by drought. Thus the dense upland cover sought by nesting hens was not apparent and the pilot/biologists' observations may have only caught a snapshot of birds that were likely to move on. Regardless, pintail numbers still remain below the LTA but are higher than the 16-year average (see figure 3).

Green-wing teal, shovelers and gadwall continue to increase in number though these species have not been studied in depth for biologists to provide a scientific explanation for their surging abundance. Redheads again exceeded the million bird mark for the second consecutive year while canvasback numbers bounced back from a decline observed last year. Hunters will want to be in Nevada's marshes when waves of these migrating species pass through.

NDOW biologists observed a total of 78,019 waterfowl in Nevada's portion of the Mid-winter Waterfowl Survey (MWS) last January (see appendix). This represents a significant decline of 27% compared to the previous year's results. Again, this is likely attributable to forage paucity. Regardless, the observed total is still 16% greater than the LTA. The mid-winter survey is a coordinated effort to inventory the Pacific Flyway's migrating waterfowl. States conduct the survey simultaneously in early January to avoid double counts between proximal geographic areas. Canada goose numbers remained fairly consistent as this species is can forage upon terrestrial vegetation rather than aquatic vegetation exclusively. The swan count was well below both short and long-term averages. It can be surmised that sago depletion is to blame.

[5] U. S. Fish and Wildlife Service. 2009. *Waterfowl population status, 2009*. U.S Dept. of the Interior, Washington, D.C. USA. 65pp.

Productivity Potential

The Pacific Flyway Council (PFC) and the FWS recently implemented a western mallard AHM strategy. Under this strategy harvest regulations frameworks would be based upon the status of mallard stocks derived from breeding grounds in the western continent. The status of breeding populations would be determined by established surveys, both within the traditional survey area and with the use of survey findings in western states and British Columbia. Managers recently adopted the western mallard model to establish the estimates required to denote the dynamics of this population. This approach prompted many states in the Pacific Flyway to modify their waterfowl breeding population surveys so that their survey estimates could be factored into the model and thus contribute to harvest decisions. Although Nevada has traditionally conducted an annual census of waterfowl since 1959, the protocols used during this survey did not meet the FWS requirements for inclusion in their breeding population estimates.

Therefore in 2009 NDOW designed a survey that allowed for a stratified sampling approach that encompassed all potential waterfowl breeding habitat in Nevada[6]. This action was instituted in order to make Nevada's BPOP survey estimates contributory to the western mallard model process. Appropriate protocols had already been in place in California and Oregon. Washington is redesigning their protocols as well. Other western states may follow.

While planning for this adjustment in survey methodology, biologists considered appropriating the funding and effort in running simultaneous surveys using the old protocols. The purpose would be to attempt to establish a conversion factor that could be applied to past year's surveys so that the modifications of past data could be used for comparison. This is the same approach now being investigated by Washington, but the process requires at least three years of dual surveys in an attempt to mitigate individual year biases. However, the effort would have been very costly in terms of flight time and manpower, so the comparison flights have been shelved for now. NDOW will continue to refine its survey methodology.

Under the above circumstantiates this report only provides this year's data. Because of the sampling regime BPOP estimates are calculated using an expansion factor against the observations made within segments of four survey strata identified for Nevada: river, marsh, agricultural, and lake/reservoir. These findings are provided below:

Table 6. Breeding population estimates of waterfowl by species and stratum surveyed in Nevada in 2009. (standard errors are in parentheses)

Species	Stratum								TOTALS:	
	River		Agriculture		Lake/Reservoir		Marsh			
Mallard	1,868	(999)	6,010	(254)	821	(189)	3,965	(176)	12,665	(1,063)
Gadwall	763	(564)	5,339	(432)	6,364	(218)	13,364	(446)	25,831	(866)
Cinnamon Teal	1,469	(84)	13,894	(57)	891	(45)	15,808	(40)	32,061	(118)
Redhead	65	(443)	728	(294	418	(253)	4,484	(212)	5,695	(625)
Pintail	65	(114)	1,666	(79)	181	(57)	559	(54)	2,471	(160)
Ruddy Duck	249	(102)	539	(68)	940	(58)	9,624	(49)	11,351	(145)
Canvasback	17	(303)	344	(217)	117	(139)	2,663	(145)	3,141	(424)
Scaup (spp)	20	(52)	7	(35)	1,136	(28)	2,542	(25)	3,704	(74)
Ring-necked Duck	15	(33)	197	(22)	0	(19)	1,285	(15)	1,498	(47)
Wigeon	128	(60)	133	(47)	145	(22)	1,859	(28)	2,266	(84)
Shoveler	120	(112)	836	(74)	38	(64)	461	(54)	1,455	(158)
Hooded Merg.	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)
Bufflehead	0	(2)	0	(1)	40	(1)	64	(1)	104	(3)
Common Merg.	1,068	(7)	303	(5)	294	(4)	17	(4)	1,682	(10)
Wood Duck	366	(5)	220	(4)	18	(3)	0	(3)	604	(8)
GW Teal	19	(22)	933	(115)	0	(13)	0	(11)	952	(31)
TOTALS:	6,232		31,149		11,403		56,695		105,480	

6 Nicolai, C.A., et.al. 2009. *Redesign of the Nevada waterfowl breeding survey.* Nevada Department of Wildlife. Unpubl. 28pp.

In the contemporary survey, NDOW observers record all species seen. Past surveys generally did not look closely at river and agricultural strata, but under the new protocols, NDOW observers were able to detect certain species like wood ducks and common mergansers. Some species such as mallard and gadwall are very adaptable in their nest site selection. They were observed on small irrigation ditches and farm ponds fairly readily. Accordingly, their proportions increased. The proportion of cinnamon teal seen in both surveys is fairly static. This species and redheads have typically been the two most common breeders in Nevada in the recent past. Redheads were not numerous this year and the observers believe that wetland conditions at Carson Lake, an area where these birds congregate, may have been a factor.

Table 7. Comparison of species proportions within survey findings.

Species	2009 Revised	1959-2008 avg. Traditional
Mallard	12.0%	7.4%
Gadwall	24.5%	17.1%
Cinnamon Teal	30.4%	26.4%
Redhead	5.4%	27.3%
Pintail	2.3%	3.4%
Ruddy Duck	10.8%	8.5%
Canvasback	3.0%	1.7%
Scaup (spp)	3.5%	4.2% (misc ducks)
Ring-necked Duck	1.4%	
Wigeon	2.1%	
Shoveler	1.4%	1.7%
Bufflehead	0.1%	
Common Merg.	1.6%	
Wood Duck	0.6%	
GW Teal	0.9%	

In past surveys, scaup were considered late migrants and were not counted as breeding birds within Nevada. Although summer observations of scaup on some of the state's WMA's confirms that at least some scaup do produce broods in Nevada, NDOW has not undertaken the effort to compare survey findings with these subsequent ground observations in order to establish an index to calculate breeding pairs of scaup. This year observers were directed to make notations of scaup spatial distribution to attempt to discern migrating flocks from dispersed pairs. The observations suggest that many of the scaup were expressing breeding behavior.

As was the case last year, ruddy duck numbers were high. The explanation for this is elusive. This species often has unexplained highs and lows and managers speculate that their May abundance is probably correlated with the progression of their migration, rather than a response to habitat conditions.

As of this writing, there have been no confirmed major outbreaks of botulism, a natural mortality factor that affects all age classes.

Readers are encouraged to obtain additional information about the status of migratory birds by visiting the United States Fish & Wildlife Service, Division of Migratory Bird Management's website at: migratorybirds.fws.gov/reports/reports.html

MOURNING AND WHITE-WINGED DOVE

Harvest

Nevada's traditional dove season comprised the 30 days of September 2007. The bag and possession limits were 10 and 20, respectively. White-wing dove hunting was limited to Nye and Clark counties only. Biologists modified NDOW's *2008-09 Post-season Small Game Questionnaire* to ask recipients how many Eurasian collared doves they harvested during the past season.

The United States Fish & Wildlife Service (FWS) conducts harvest surveys through its *Harvest Information Program* (HIP) survey. The same protocols used to estimate waterfowl harvest are applied to the dove findings collected through this survey. NDOW has been refining its questionnaire by attempting to poll a larger proportion of the hunting public. This year's response depicted more individual dove hunters than any previous survey, giving biologists a fairly robust data set from which to make its extrapolations. Table 1 describes the findings of the two survey approaches:

Table 1. Comparisons Between Estimated Dove Harvest Statistics for Nevada.

Year	Estd. Hunter Numbers			Estimated Hunter Days			Estimated Dove Harvest		
	HIP[1]	NV Q	% Diff	HIP	NV Q	% Diff	HIP	NV Q	% Diff
2002	5,200	5,355	-3%	17,800	15,112	+15%	71,300	62,977	+12%
2003	4,700	4,074	+13%	10,800	10,177	+6%	42,100	37,750	+10%
2004	3,800	3,434	+10%	8,800	9,619	-9%	36,500	34,650	+5%
2005	4,100	4,110[2]	--	10,000	14,580	-46%	47,700	50,364	-6%
2006	4,100	4,325[2]	-5%	9,400	13,650	-45%	38,900	53,850	-38%
2007	2,800	3,214[2]	-15%	9,600	14,135	-47%	38,500	48,629	-26%
2008	4,900	4,215[2]	-14%	12,200	14,840	-24%	45,000	51,785	-15%

Expressed as "Active Adult Hunters" within the HIP survey.
Figures in 2005 - 2008 are *individual* hunters

The FWS's preliminary HIP data indicates a 75% increase in individual dove hunters from the 2007 season to 2008. The increase is less significant (23%) if compared to the average for 2004-2006. Hunter numbers estimated through NDOW's survey also describe a decline in hunter numbers for 2007, though to a much less significant extent. NDOW's 2008 hunter estimate is identical to the two year average for 2005-06. Dove harvest data obtained through the *2008-09 Nevada Post-season Harvest Questionnaire* are as follows:

Table 2. Nevada mourning dove harvest - from Post-season Questionnaire.

	STATE TOTALS:			Percent Change	
	2007	2008	98-07 avg.	Prev. yr.	vs. avg.
No. of Birds	48,629	51,786	45,664	2.8%	13.4%
No. of Hunters[3]	4,404	4,493	4,287	2.1%	4.8%
No. of Days	14,135	14,839	12,692	1.8%	16.9%
Birds / Hunter	11.04	11.53	10.57	0.70%	9.01%
Birds/Hunter Day	3.44	3.49	3.60	1.03%	-2.98%

(3) Figures in the row represent cumulative hunters.

NDOW's revised questionnaire allows managers to analyze individual hunters – the estimated number of license holders that hunted doves, as well as cumulative hunters – the total of all the estimated number of persons that hunted in each of the state's 17 counties. Since past analysis incorporated the cumulative value, it is used here for comparison to short and long-term averages. It is obvious that some dove hunters actively hunt in more than one county. Individual hunter total calculations are only estimated for the past three seasons.

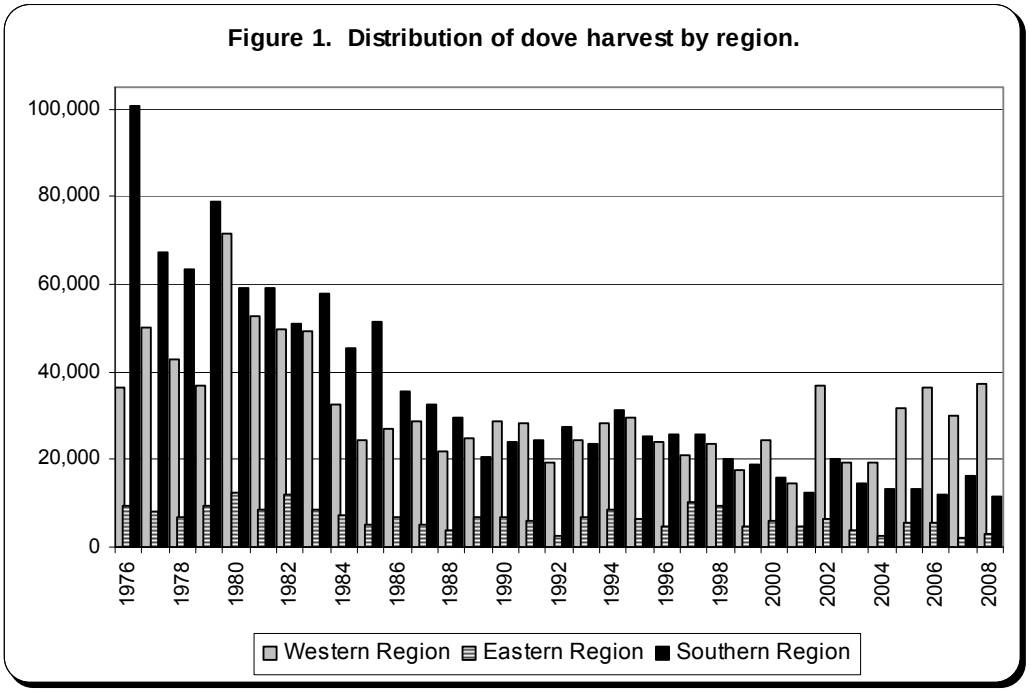
Table 3. Mourning dove harvest by region - from Post-season Questionnaire.

	WESTERN			EASTERN			SOUTHERN		
	2007	2008	AVG.*	2007	2008	AVG.	2007	2008	AVG.
No. of Birds	29,999	37,183	25,293	2,348	3,029	5,046	16,282	11,574	15,673
No. of Hunters	2,675	2,849	2,286	368	429	642	1,361	1,215	1,379
No. of Days	8,334	10,125	6,580	895	1,176	1,549	4,906	3,538	4,469
Birds / Hunter	11.21	13.05	10.9	6.38	7.06	7.7	11.96	9.53	11.4
Birds/Hunter Day	3.60	3.67	3.8	2.62	2.58	3.3	3.32	3.27	3.6

*average is 1997-2006

For most of this decade, harvest and hunter numbers have been highest in the Western Region. However, dove hunting was a major hunting activity in the Southern Region in the recent past. Harvest and participation have declined significantly but the proportional distribution of the harvest and hunters has shifted to northwest Nevada (Figure 1.). Biologists can only speculate about this phenomenon. The development of Las Vegas Valley is a primary consideration; however, there has been relatively little loss of access to public lands within the Mojave Desert and NDOW has been very active in increasing water distribution by placing more guzzlers. Therefore access to decent dove hunting is relatively close and easy to reach. Regardless, one would expect a numerical increase in total hunters residing in Clark County commensurate with the tremendous human population growth that has occurred since the mid-1970s. Sufficient data does not exist to prove the hypothesis that mourning dove are becoming more habituated to urban settings. This was originally a point of interest in northern latitudes where doves were present in cities like Reno, Boise and Salt Lake City even during harsh winter conditions. The same possibility exists for Las Vegas, Pahrump and Boulder City where backyard feeders probably now provide a significant volume of forage and a relatively safe environment.

Figure 1. Distribution of dove harvest by region.



Overall, the state's dove harvest has recovered from record lows set in the earlier part of this decade. Hunter's season totals and their average daily harvest have increased in the past three years, perhaps indicative of an aging, knowledgeable and effective hunter cadre. These values are fairly similar to their respective previous year and the 10-year averages; however, when compared to previous decades, the recent statistics are insubstantial (table 4). This is particularly evident when comparing harvest and days.

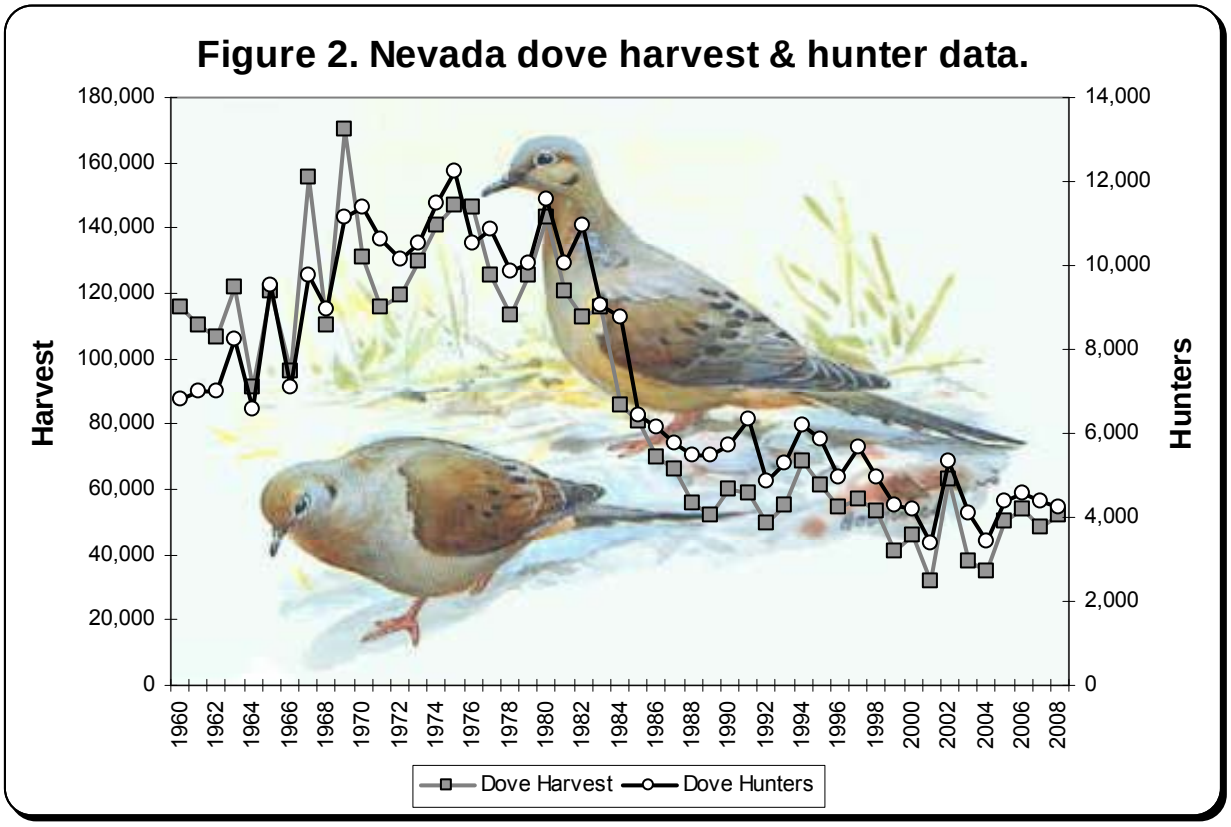


Table 4. Statewide dove harvest by decades - from Post-season Questionnaire.

	1960's	1970's	1980's	1990's	2000's
No. of Birds	119,945	129,489	90,248	55,843	46,024
No. of Hunters	8,208	10,765	7,968	5,410	4,236
No. of Days	26,590	34,388	23,333	15,600	12,688
Birds / Hunter	14.61	12.03	11.33	10.32	10.77
Birds/Hunter Day	4.51	3.77	3.87	3.58	3.63

White-winged Dove – This year 1,338 individual questionnaire respondents indicated that they hunted migratory game birds other than waterfowl during the 2008-09 hunting season. Of these, 29 indicated that they hunted white-winged dove in Clark and Nye counties during the 2008 hunting season. This data was sufficient to perform an extrapolation of harvest. Those harvest figures are depicted on page Q-9. NDOW cannot do any comparisons between years because the white-winged dove data has been very sporadic. Suffice it to say that this species is not abundant in Nevada and will continue to be somewhat of a novelty among southern Nevada hunters.

Eurasian Collared Dove –NDOW asked questionnaire recipients to indicate whether or not they shot this species (ECD) in 2008-09. This is a bird that is expanding its distribution and abundance throughout the nation and in Nevada. Ninety individual questionnaire respondents indicated ECD harvest in all but three of Nevada's 17 counties. The data supports an estimated statewide harvest of 1,907 birds. The species is unprotected and the questionnaire did not ask which month the birds were shot in. However, it is suspected that most were taken incidental to mourning dove hunting. Managers continue to attempt to gain an understanding of the bird's ecological role.

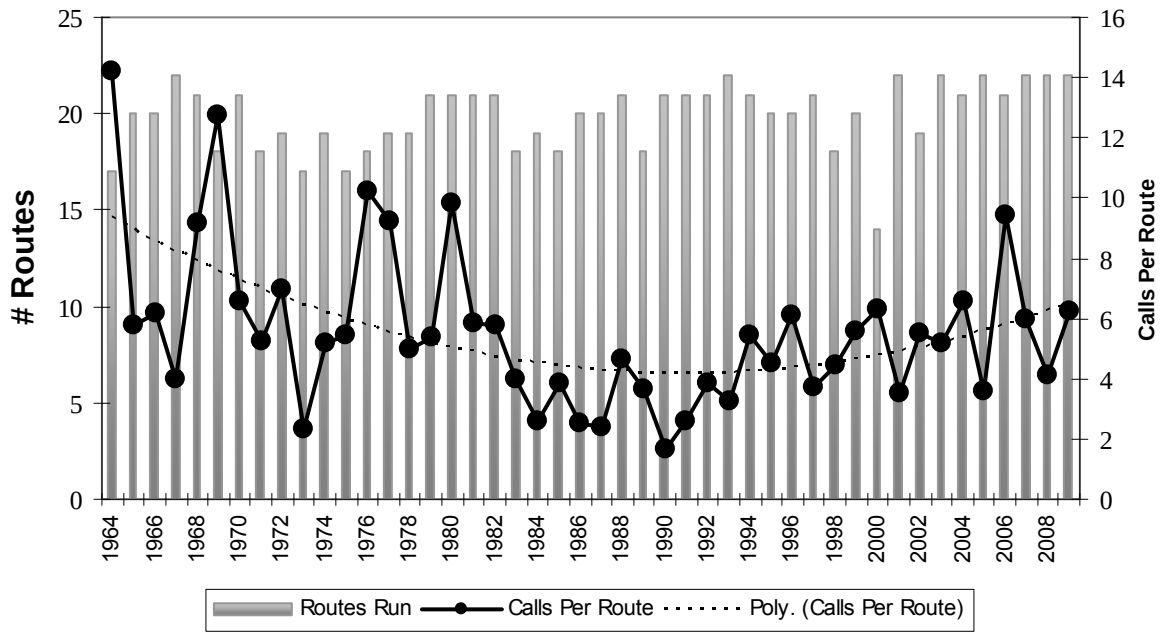
Population Status

The FWS coordinates the Mourning Dove Call-count Survey for the entire nation. This comprehensive effort includes more than 1,000 randomly selected routes distributed within physiographic regions. These migratory game birds are managed within three zones – the Eastern, Central and Western Management Units (MU). Populations within these MUs are considered to be largely independent of one another. Nevada is one of seven of the contiguous western states within the WMU. There are 22 call-count routes in Nevada, most of which have been run since 1964.

State and federal biologists in Nevada conducted all 22 of the established survey routes this spring. This year route-runners observed 121 birds compared to 102 last year and considerably less than the LTA of 173. Documented calls amounted to 138, compared to 91 in 2008 and the LTA of 110. Of course these data are subject to a number of biases and the rules for establishing or moving established routes are very strict. Managers have been somewhat critical of the inclusion of this data into models that will affect adaptive harvest management of doves in the near future. Like duck season frameworks, frameworks for season length and bag limit will be established by the FWS following a consultation process, but the status of MU populations will be determined through modeling. Presently, a nationwide banding effort is underway in an effort to quantify distribution, abundance and vital rates of these birds in order to achieve better precision in the models.

Last summer, biologists captured and banded a total of 146 dove at five sites in the state. This summer, agency banders became more efficient and banded a total of 427 dove at 8 sites. The recovery and report of these bands, mostly by hunters, will help estimate dove abundance and distribution patterns.

Figure 3. NV Dove CCS - Calls per Route



BAND-TAILED PIGEON

No survey and inventory activities were conducted for this job during this report period.

AMERICAN CROW

Harvest

Crow hunting was open statewide with two hunt periods. The fall hunt was September 1st to November 17th, 2008 and the spring hunt extended from March 1st to April 15th, 2009. The limit was 10 daily and in possession and hunters were required to retrieve their crows and remove them from the field.

NDOW modified its harvest questionnaire to attempt to document crow harvest beginning in 2003, with specific questions incorporated within the 2006 questionnaire. Initially, data was too insignificant to merit any analysis but as the agency increased its distribution to a larger base of small game hunters, enough responses came in to affect an estimated harvest (see page Q-11). This year, 31 of 1,338 (2.3%) individual respondents that hunted migratory bird also reported harvesting crows. Table 1 depicts harvest data recorded since 2003, with a separation of figures for 2007 and 2008 to differentiate between raw data collected for four years and estimates modeled for the past two years. Managers speculate that the majority of crow harvest occurs in the fall hunt.

Table 1. – Reported American crow harvest in Nevada.

	CC	CH	DO	HU	LY	MN	PE	ST	WA	EL	EU	LA	WP	CL	ES	LN	NY
2003	4	5	5	--	--	--	--	--	--	2	17	--	--	1	--	1	--
2004	--	6	2	36	124	--	4	--	--	--	32	13	--	42	--	--	18
2005	3	1	--	4	49	41	2	--	1	54	1	51	5	--	--	2	10
2006	--	0	--	9	3	3	15	--	1	16	--	11	--	--	6	16	1
2007	--	262	363	68	233	2	77	--	198	72	--	--	--	363	0	98	30
2008	--	93	--	42	291	19	--	32	16	19	--	109	32	80	--	67	--

Since the sample size is still relatively small, some variation in data can be quite significant between years. This is particularly evident for Washoe County where the estimated harvest greatly declined. This is the difference made when only four hunters indicated that they shot five birds in Washoe this year versus the 18 that shot 119 crows last year. The 2008-09 harvest estimates are based upon data provided by information provided by a total of 31 questionnaire respondents. Last year, there were 114 respondents that indicated they hunted crows. Only a greater distribution of questionnaires among theoretical small game hunters, in other words a higher sampling rate, will achieve more statistically reliable estimates.

Population Status

Crows are not classified as migratory *game* birds under federal rule thus the FWS does not regulate the take of American Crows. Accordingly, there are no coordinated efforts within the flyways to determine their population status. NDOW does not conduct any population analysis other than an analysis of harvest data. The species is ubiquitous and since it is lightly hunted within a broad statewide distribution, managers feel that the harvest data is not indicative of crow population trends. The extent of the effects of West Nile Virus is not known, although it is recognized that corvids are particularly susceptible to the disease.

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REGIONAL SPECIES SUMMARIES

SAGE-GROUSE

WESTERN REGION

Harvest

During the 2008 general season in Humboldt and Washoe Counties, a 10-day standardized season was held for sage-grouse from October 5th through October 14th. Areas 1, 3, and 5 were open for harvest excluding certain units in Humboldt and Washoe Counties. Open units included 033, 035, 042, 044, 046, and 151 in Humboldt County and 021, 022, 033, 194, and 196 in Washoe County. Unit 184 of Churchill and Lander Counties was open in 2008 with a 2-day season on October 4th and 5th. Bag limits remained the same as the previous year's season with a 2 daily and 4 in possession limits. Unit 033, on the Sheldon National Wildlife Refuge, had two special 2-day hunts offered during September. The two weekends were September 20th-21st and September 27th-28th. Participation was limited to 75 permits per hunt period and awarded by lottery. The daily bag and possession limits for these special hunts were changed from 3 and 6 in 2007 to 2 and 4, respectively. Table 1 describes the combined hunting season results of the open counties within the Western Region.

Table 1. WESTERN REGION SAGE-GROUSE HARVEST
Post-season Questionnaire Data

	REGIONAL TOTALS:			Percent Change	
	2007	2008	10-Yr Avg.	Prev. yr.	vs. Avg.
No. of Birds	1,835	1,974	1,838	7.6%	7.4%
No. of Hunters	1,466	1,366	921	-6.8%	48.3%
No. of Days	3,143	2,651	1,893	-15.7%	40.0%
Birds / Hunter	1.25	1.45	2.0	15.5%	-28.6%
Birds/Hunter Day	0.58	0.74	1.0	27.5%	-24.6%

Questionnaire data was acquired by using a sample of those individuals that purchased their upland game stamp online. This method was used to try and capture the information from those individuals that actually hunted upland birds during the 2008 season. During the 2008, season production was slightly up from what was observed in 2007. This slight increase was reflected in the harvest with an 8% increase despite the 7% drop in hunter participation. The effort that took place was less than what we saw the previous year, but well above the 10-year average. Birds per hunter and birds per hunter day were both up reflective of the increased number of birds harvested. Communication with hunters during the season provided varying results. Some individuals were able to harvest birds right away while others had difficulties locating birds. Very little participation was observed during the later portion of the season.

Population Status

Department biologists continue to monitor sage-grouse population trends throughout the region. Monitoring continues with both hunted and non-hunted populations. Spring lek counts and brood surveys are conducted annually in all the PMU's within the Western Region. Lek counts this year were conducted from both the ground and the air. From these lek counts and brood surveys, population estimates have been established for most sage-grouse populations. According to Western Association of Fish and Wildlife Agencies (WAFWA) guidelines, populations with less than 300 breeding birds should not be hunted and harvest rates should not exceed 10% of the estimated fall population. NDOW strives to meet these guidance recommendations on an annual basis for each PMU with an open season.

Major factors that have influenced sage-grouse populations in the Western Region include wildfire, urbanization, improper livestock grazing practices, wild horse over-utilization, mining, and pinyon/juniper encroachment that have changed vegetation types. Pipeline corridors and wind energy projects are both on the rise and have potential for future disturbances and fragmentation to existing sage-grouse habitats and populations.

During the annual Wing Bee on November 10, 2008, 583 hunter-harvested wings from the Western Region were analyzed by Department biologists. Table 2 summarizes this information.

Table 2. Western Region Wing Data by Area

Hunt Area	Adults		Juveniles		Total Harvest	Young/ Hen
	Males	Females	Males	Females		
Sheldon NWR	6	23	32	43	104	3.26
Buffalo/Skedaddle	3	1	9	11	24	20
Total Massacre PMU	2	19	17	25	63	2.21
Unit 012	0	4	1	3	8	1.0
Unit 013	0	8	4	13	25	2.13
Unit 014	2	7	12	9	12	11
Total WA Co.	11	44	60	88	203	3.36
Santa Rosa PMU	13	33	26	35	107	1.85
Lone Willow PMU	19	75	84	74	252	2.11
Pine Forest PMU	4	8	6	1	19	0.88
Black Rock PMU	0	0	1	1	2	
Total HU Co.	36	116	117	111	380	1.97
Desatoya	35	33	21	20	109	1.24
Total Churchill	35	33	21	20	109	1.24
Total Western Region	47	160	177	199	583	2.35

Production is measured by young/hen ratio which is acquired from hunter harvested wings. Estimated production for the entire region was up significantly from 2007. Production values for the western region range from a high of 3.36 chicks:hen in Washoe County to a low of 1.24 chicks:hen in Churchill County. WAFWA guidelines suggest that a ratio of 2.25 chicks:hen is necessary to maintain a stable to slightly increasing population. The overall production for the Western Region is showing an upward trend. Sage-grouse, like many other upland game species, are cyclic with periodic population highs and lows. Population declines have been noted for the last four years with this year being the exception. Every unit that had a harvest has shown and increase in production for the year. The spring of 2008 was very dry in comparison to average precipitation received. Then, near Memorial Day Weekend, rains soaked a very parched landscape across northern Nevada. Additional rain was received in early June and these few, but substantial events provided necessary forbs and insects that fostered sage-grouse and other upland game bird production.

Lek counts were conducted using both aerial surveys and ground counts during the spring of 2009. Additional work forces in the form of seasonal technicians were added to assist with ground count efforts. Winter precipitation was lacking in most areas allowing easier access than in previous years. For the most part, the weather was very conducive for aerial surveys. Biologists observed approximately 2,900

sage-grouse during these surveys in the Western Region compared to 3,004 in 2008. The mean number of birds counted on all leks in 2009 was slightly higher (μ=8.5) than that of 2008 (μ=7.9). In terms of mean number of birds per active lek, that also increased by 18.6% from 12.4 in 2008 to 14.7 in 2009. Comparing the number of birds per active lek likely provides a more reasonable evaluation of the population performance from year to year. Radio-marking studies continue throughout the region to monitor both movement patterns as well as use areas. These projects have provided vital knowledge and information to assist with the management of this species.

Productivity Potential

Despite the lack of winter precipitation, lek attendance was relatively the same as the previous year with a few leks showing slight increases. However, with the noted increase in production in 2008 (albeit somewhat slight), there was an expectation that this would translate into higher lek count numbers. Even though sage-grouse are a relatively long lived bird, average mortality likely negated the improved production.

Wildland fires did not have any major impacts during 2008 on any of the sage-grouse populations within the Western Region. From the information gained from hunter harvested birds in 2008, lek counts and brood surveys conducted in 2009, populations should increase in most areas with adequate amounts of suitable habitat. Production numbers for this summer are generally good and the number of sage-grouse is expected to be slightly better than what was observed last year.

Fall Prediction

Despite the poor winter precipitation, spring conditions improved and had a major effect on the forbs and insects available for early stages of brood rearing. The poor winter snowpack coupled with recent dry conditions have constricted water sources and forced females with broods to become heavily tied to these limited water sources. This can increase their vulnerability to predators. Information gained to date indicates that hunting should be improved from what was experienced last year. If weather patterns do not change, hunters can expect dry and dusty conditions for the beginning of the hunting season.

EASTERN REGION

Harvest

For the first time since 1999, the Eastern Region (Elko, Eureka, Lander and White Pine) sage-grouse season was increased from 9 days to 15 days in 2007. The season was set for two years so the 2008 season also ran from September 25 through October 9, 2008. Bag limits were not changed and remained at 2 daily and 4 in possession. Since 2003 Game Management Unit 151 in Lander County has been closed to sage-grouse hunting based on low population levels of sage-grouse in the Battle Mountain and Fish Creek Population Management Units (PMU's). Since 2005, Units 079 and 106 in Elko County and Unit 132 in White Pine County have been closed to sage-grouse hunting. Due to management area boundary changes, Unit 091 was also added to areas closed to sage-grouse hunting in Elko County in 2007. Units 114 and 115 were both closed to sage-grouse hunting in White Pine County in 2008.

Table 3. EASTERN REGION SAGE-GROUSE HARVEST BY COUNTY
Post-season Questionnaire Data

	COUNTY TOTALS:			Percent Change	
	2007	2008	Avg.	Prev. yr.	vs. Avg.
Elko	1,406	1,861	1,551	32%	20%
Eureka	410	671	319	64%	110%
Lander	495	430	306	-13%	41%
White Pine	344	492	200	43%	146%
Eastern Region	2,655	3,454	2,454	30%	41%

Table 4. EASTERN REGION SAGE-GROUSE HARVEST
Post-season Questionnaire Data

	REGIONAL TOTALS:			Percent Change	
	2007	2008	Avg.	Prev. yr.	vs. Avg.
No. of Birds	2,655	3,454	2,454	30%	41%
No. of Hunters	1527	1,722	1,360	13%	27%
No. of Days	3,390	4,002	3,053	18%	31%
Birds / Hunter	1.7	2.0	1.8	15%	11%
Birds/Hunter Day	0.8	0.9	0.8	10%	7%

The 2008 sage-grouse harvest increased in three of four Eastern Region counties and was only down in Lander County (-13%). Although harvest decreased slightly in Lander County, it was still 41% above the previous 10-year-average. Sage-grouse harvest increased 30% overall in the Eastern Region and was 41% above the previous ten-year-average.

Population Status

Summer brood survey sample sizes in 2008 remained low for the Eastern Region (Table 5) because effort to collect samples has been reduced. The largest sample was obtained in Elko County (55% of the Eastern Region's sample) followed closely by White Pine County (35%). Lander County had provided the largest sample of sage-grouse between 2004 and 2007 but sample size fell 64% in 2008. A total Regional sample of 234 sage-grouse was classified with an average brood size of 3.7, a young/hen ratio of 2.38 and a young/adult ratio of 1.50. The Region's sample size in 2007 was 149 with an average brood size of 3.4, a young/hen ratio of 1.42 and a young/adult ratio of 0.73. Both the adult/young and young/hen ratios increased from 2007 to 2008. Brood sizes increased in Elko and White Pine counties and decreased slightly in Lander County between 2007 and 2008. Harvest data reflected these differences where Lander County was the only county in the region with lower harvest in 2008 than in 2007.

Table 5. SAGE-GROUSE PRODUCTION SUMMARY - EASTERN REGION 2008

County	Bird Totals					Ratios		Total Complete Broods	Tot. Yng. in Complete Broods	Avg. Brood Size
	Observed	Classified	Adults	Hens	Young	Young/ Ad	Young /Hen			
Elko	128	128	52	33	76	1.46	2.30	20	69	3.5
Eureka	0	0	0	0	0	0.00	0.00	0	0	0
Lander	25	25	14	7	15	1.07	2.14	4	15	3.8
White Pine	108	81	29	20	52	1.79	2.60	11	44	4.0
Reg. Total:	261	234	95	60	143	1.50	2.38	35	128	3.7

Wings collected from hunters in 2008 were assessed to determine male/female ratios and production. Wing data for the Eastern Region are summarized in Table 4.

Table 6. EASTERN REGION SAGE-GROUSE WING DATA - 2008

County	Total Wings	Adult Males	Adult Females	Juvenile Males	Juvenile Females	Ratios	
						Juv./ Ad Hen	Juv./ Adult
Elko	395	50	151	101	93	1.28	0.97
Eureka	230	41	74	44	71	1.55	1.00
Lander	146	17	50	28	51	1.58	1.18
White Pine	96	18	31	28	19	1.52	0.96
Reg. Total:	867	126	306	201	234	1.42	1.01

Wings were obtained from hunters through strategically placed wing collection depositories (*wing barrels*) and through field contacts between NDOW personnel and successful hunters. Wing analysis indicated survival of young birds into October improved from 2007 to 2008 with 145% increase in the juvenile/adult hen ratio and a 181% increase in the juvenile/adult ratio. A comparison with brood data shows that 2.38 young/hen observed in July decreased to 1.42 by October. It is notable that the 1.42 young/hen ratio observed in the 2008 October wing data was the same as the summer brood survey ratio for the region in 2007 indicating production was much improved in 2008.

Winter survival of birds was good throughout the Eastern Region in 2008-2009. Sage-grouse are adapted to heavy snow cover, cold temperatures, and deep snow as long as heavy crusting is not experienced and especially if there are vast sagebrush areas available for migration of sage-grouse to

winter ranges. Lek count data on comparable leks in the Eastern Region for 2009 are summarized as follows:

- -6% in Elko County;
- -16% in Eureka County;
- 0% change in Lander County; and
- -17% in White Pine County.

There has been a gradual downward trend in lek counts over the long-term throughout the Eastern Region since the 1960's. Following gradual overall increases in lek attendance between 2000 and 2006, a downward trend has been documented since.

Elko County harbors some of the largest sage-grouse populations within Nevada. There are a total of 10 PMUs within this planning area. Four biologists share responsibilities for these ten PMUs. Lek-monitoring efforts were coordinated between Elko NDOW, USFS and Elko BLM Field Office personnel as well as volunteers. Monitoring by NDOW personnel focused on trend ground counts and ground-truthing of existing leks in the database. BLM efforts were directed more towards checking leks for activity associated with burned areas, proposed power line projects or in areas that have little historic data available. USFS personnel and volunteer's assisted with lek occupancy and lek counts.

In Elko County during the spring of 2009, 297 leks were visited and 2,355 cocks were observed for an average of 7.9 birds/lek or 14.6 birds/lek not including the 136 leks with no birds observed. Nine new leks were located in 2009, all but one in the Northfork PMU. In comparison, 366 leks were visited in 2008 with 2,697 cocks observed for an average of 7.4 birds/lek or 15.2 birds/lek excluding the 189 leks with no birds observed. As a result of 2009 fieldwork and assessment, a total of 17 leks were removed from the database due to the lack of long-term data or because they were one time counts or no data in questionable habitat (two leks) or the lek was combined with an existing adjacent lek (15 leks). There are still a substantial number of leks on the list that need to be evaluated as to whether they were one-time sightings or if they are actual strutting areas. Burned leks will continue to be monitored to see if they persist or if abandoned leks become occupied sometime in the future.

NDOW personnel checked trend leks between 3 and 8 times each during March, April and early May of 2009. NDOW personnel monitored 14 trend leks in Elko County. They counted 557 males with 40 males/lek and showed a 6% decrease in numbers from 2008. Most leks peaked in mid to late April, one peaked in mid-March and one in early May.

In Eureka County, the peak male attendance on the 10 comparable grounds for 2009 was 159 for an average of 16 males per ground. This resulted in a 16% decrease from 2008 when 189 males were counted for an average of 18 males per ground. The decrease in 2009 followed a 31% decrease the previous year. In addition to trend counts, there were 8 additional active leks surveyed by NDOW and UNR graduate students in 2009 for 18 leks to compare. These 18 active leks had 279 males in attendance for an average of 16 males/lek. In 2008, there were 339 males yielding an average of 19 males/lek. Using this extended list of leks monitored, a decrease of 17% in lek attendance was documented. There were 5 new leks documented by helicopter survey on Roberts Mountain that will have to be verified by ground surveys in 2010. Including the five leks found during the aerial survey there were 24 total active leks counted in 2009 with 336 males for an average of 14 males per ground.

In Lander County 5 trend leks were monitored and 114 cocks were observed in 2009 for 23 cocks/lek compared to 117 cocks and 23 cocks/lek in 2008. No difference in lek attendance was observed between 2008 and 2009. A total of 321 cocks were counted on 25 leks in 2009 for 13 cocks/lek compared to 10 cocks/lek in 2008 with 144 cocks counted on 14 leks. Two new leks were found this year thanks to continued monitoring of radio-marked males captured on Bates Mountain in the Simpson Park Range. One of these new leks had the second highest attendance of males counted in Lander County in 2009 with a high count of 36.

White Pine County witnessed an unprecedented lek monitoring effort in 2009. Numerous personnel from 7 different agencies and organizations participated in lek surveys. Twenty-five comparable leks were monitored and 288 cocks were observed in 2009 for 11.5 cocks/lek compared to 345 cocks and 13.8 cocks/lek in 2008. This represented a 17% decrease in lek attendance. Overall in 2009, 145 leks were visited and 1,048 cocks were observed for an average of 7.2 birds/lek or 13.4 birds/lek not including the 67 leks with no birds observed. In comparison, 77 leks were visited in 2008 with 872 cocks observed for an average of 11.3 birds/lek or 15.0 birds/lek excluding the 18 leks with no birds observed. Twelve new leks were found in 2009 with all but one located in the Butte Valley/Buck Mountain/White Pine PMU. These new leks were attended by 212 males and will need to be validated next spring. The largest new lek exceeded 70 males.

Overall in the Eastern Region in 2009, 4,060 cocks were counted on 491 leks. Last year, 234 leks were monitored with 3,247 male sage-grouse documented using those leks. Lek data indicate sage-grouse populations are still widely distributed throughout the Region in spite of recent wildfire and development challenges. Vast areas of burned habitat may have fragmented some sage-grouse populations. Most of them still have adjacent grouse populations that will be able to colonize back into these burns if they recover over the next 15 to 25 years. Additional uncontrolled wildfires in the future could exacerbate the habitat fragmentation problem and threaten the future of sage-grouse in significant portions of Elko County. Trend lek counts are down over the long-term (20 years). Strutting ground and harvest data indicate base populations of sage-grouse are low to moderate in the Region compared to the late 1970's and early 1980's.

Productivity Potential

A total Regional sample of 234 sage-grouse was classified with an average brood size of 3.7, a young/hen ratio of 2.38 and a young/adult ratio of 1.50 in 2008 compared to 149 classified with an average brood size of 3.4 and a young/ratio of 1.42 and a young/ratio of 0.73 in 2007. For the first time since 2004, the largest sample size in 2008 was collected in Elko County followed by White Pine County. Large areas north of Interstate 80 in Elko County were negatively impacted when significant wildfires burned hundreds of thousands of acres of sage-grouse habitat in 2007. Combined with acreages from previous wildfires since 1999, more than one million acres of sage-grouse habitat has been impacted. Initially, burned areas come back as mostly a grass-forb complex with only limited seasonal use value for sage-grouse. Of major concern is the loss of wintering habitat (October through March) and spring production habitat (March through June) for leks and nesting. If these wildfires continue to burn significant acreages of sage-grouse habitat, Elko County could soon be facing significant challenges in terms of supporting the healthy populations it has been known for in the past. Summer conditions in 2009 were good to excellent for brooding sage-grouse in most of the Eastern Region due to above average precipitation received in June that was the highest since 1913. Abundant spring moisture and mild temperatures delayed the appearance of sage-grouse around riparian areas. Insect numbers were fair in early summer but should have responded favorably to the lush vegetation.

Fall Prediction

Bird availability in the Eastern Region is predicted to be fair where habitat is intact and in some of the recovering burns but poor in areas of Elko County where large wildfires have destroyed sage-grouse habitat. Measurable precipitation occurring immediately prior to and during the season tends to reduce hunting success. Dry conditions often concentrate birds making them more available to the hunter. Hunting is expected to be fair to good in most of the Region for 2009.

SOUTHERN REGION

Harvest

Although sage-grouse occur in both Esmeralda and Lincoln counties, these populations are not considered large enough to support harvest at the present time. Currently, Nye County is the only county within the Southern Region which maintains an open sage-grouse season. Accepted sage-grouse harvest guidelines state that harvest should only occur in areas where more than 300 birds comprise the spring breeding population. When it is determined that Lincoln and/or Esmeralda counties have met these guidelines a recommendation to open some additional areas in the Southern Region may be made.

The 2008 sage-grouse season in Nye County ran from September 25th to October 9th for a total of 15 days. This relatively new season structure began in 2007 when the previous standard of a 9-day season was lengthened by 6 days, and the opener was moved two weeks earlier than had been the case for quite some time. Daily bag and possession limits remained unchanged at 2 daily and 4 in possession. Harvest data collected for the 2008 sage-grouse season indicate that 183 hunters harvested 347 birds in the Southern Region. In comparison, 2007 saw a harvest of 406 birds by 204 hunters. Post-season questionnaire data indicates that interest in sage-grouse hunting in Nye County has remained relatively low for the past 10 years. However, the past two seasons have seen a return to levels of hunter interest and total birds harvested not seen since the late 1990's. Questionnaire data also indicate that, similar to 2007, sportsmen were once again more successful locating and harvesting sage-grouse in 2008 than has been the case in a number of years. The recent move to a somewhat earlier season, along with the addition of nearly a week to the length of the season, seems to be increasing the interest of sportsmen in pursuing sage-grouse in the Southern Region.

Questionnaire data indicate a few sportsmen continue to report pursuing sage-grouse in both Esmeralda and Lincoln counties. Both counties are closed to sage-grouse hunting; however, low harvest is continually reported. These types of reports should be followed up in order to determine if people are actually pursuing sage-grouse in these closed areas, or if the information provided is simply a mistake or meant to be intentionally misleading.

It is important to note that although the questionnaire data provide important information regarding overall harvest and hunter pressure trends; small sample sizes may produce biased results. Refer to the following table for the short- and long-term perspectives of harvest.

Table 7. Southern Region (Nye County) Sage-Grouse Harvest
Post-season Questionnaire Data

	REGIONAL TOTALS:			Percent Change	
	2007	2008	10yr Avg.	Prev. yr.	vs. Avg.
No. of Birds	406	347	177	-15%	96%
No. of Hunters	204	183	132	-11%	39%
No. of Days	449	332	261	-26%	27%
Birds / Hunter	2.0	1.9	1.2	-1%	58%
Birds/Hunter Day	0.9	1.0	0.6	1%	67%

Population Status

During late March and continuing through early May each spring, Nevada Department of Wildlife personnel, BLM and USFS biologists, and PROWL volunteers, conduct sage-grouse lek counts in central Nevada to determine breeding population trends and status. Fourteen leks have been identified as trend leks in central Nevada. An attempt is made to conduct a count at each of the 14 trend leks once per week for 5 weeks in order to determine peak attendance of male and female sage-grouse.

Not surprisingly, considering the severe drought conditions experienced during 2007 in central Nevada, lek counts were down noticeably in Nye County during the spring of 2008. In 2008, 11 of the 14 trend leks showed decreases in cock attendance, and three showed increases. Overall, 2008 trend lek data indicated that cock attendance was down 24% from 2007, but was nearly identical to the previous seven-year average.

During the spring of 2009, 7 trend leks showed a decrease in cock attendance from 2008, while 7 showed an increase. Overall, 2009 trend lek data indicate that cock attendance was down 4% from 2008. Despite the minor drop in cock attendance compared to the previous year, it is interesting to note that over the past 8 years, 8 of the 14 trend grounds have been showing an increasing trend in cock attendance. From 2001 to 2007, most central Nevada trend grounds showed very good increases, but due to recent drought, much of this growth has been nullified.

In order to determine male/female harvest ratios, nesting success, and young of the year recruitment rates, NDOW collects wings from hunter harvested sage-grouse each fall in areas with open seasons. During the 2008 sage-grouse season, a total of 103 wings were gathered in the Southern Region. Data obtained from assessing these wings indicate that the juvenile per adult hen ratio during the fall of 2008 was approximately 1.42 juveniles/adult hen. While this rate is noticeably better than the 0.67 juveniles/adult hen observed in 2007, it is still well below the rate of 2.25 chicks/adult hen that is considered necessary for a stable to increasing population. The reliability of wing data is partially dependent upon sample size, and samples are relatively small for Nye County in most years. Wing data for central Nevada are summarized in Table 2.

Over winter survival of sage-grouse should have been good during the 2008-09 winter period. Lower elevation sagebrush benches remained open and available to wildlife throughout much of the winter period in central Nevada. Despite the recent set back due to drought, central Nevada continues to support very healthy populations of sage-grouse.

Table 8. SOUTHERN REGION SAGE-GROUSE WING DATA

Year	Total Sample	Adults		Juveniles		Young/ Ad Hen
		Males	Females	Males	Females	
2000	33	5	10	7	11	1.8
2001	76	10	16	21	28	3.1
2002	63	10	25	9	19	1.1
2003	75	6	20	26	23	2.5
2004	62	14	24	10	14	1.0
2005	90	8	23	36	23	2.6
2006	155	28	40	31	56	2.2
2007	127	30	58	17	22	0.67
2008	103	11	38	22	32	1.42
Average	87	14	28	20	25	1.82

Productivity Potential

While central Nevada has been ravaged by drought conditions over the past three years, 2009 has seen a great improvement in moisture receipts and resultant improvements in habitat conditions. The Basin-Wide Precipitation Data Summary provided by the Natural Resources Conservation Service (NRCS) indicates that the winter of 2008-2009, while slightly below average, was a comparatively good one in much of central Nevada. Despite a return to drier conditions during the period of March - mid May, relief in the form of record rainfall was experienced during late May - July over much of central Nevada. June

saw precipitation receipts on the order of 250% above the average while July experienced 280% above average precipitation over much of central Nevada. While a cold, wet period in late May and early June can negatively impact upland game production by increasing chick mortality due to hypothermia, it appears that during 2009 overall temperatures remained warm enough that mortality of newly hatched young was lower than anticipated. The abnormally wet early summer significantly improved range conditions throughout much of drought ravaged central Nevada, boding well for all species of wildlife at least in the short-term.

Preliminary brood survey data collected up to the writing of this report indicate a production rate of 3.5 chicks/adult hen for 2009. Despite the very wet late May and early June period this rate is equal to that experienced in 2008. In contrast, 2007 saw production rates of 1.3 chicks/adult hen due to severe drought conditions experienced throughout central Nevada. Although brood survey data provide important information to wildlife managers, due to the many factors that can affect chick survival through the summer and early fall, the data is of minimal value in predicting actual recruitment rates. Wings collected in the fall from hunter harvested sage-grouse are presently the most effective method of determining recruitment. Unfortunately, in areas where sage-grouse hunting does not occur, as in Lincoln County, this source of data is unavailable.

Fall Prediction

Winter survival of adults should have been good throughout most sage-grouse ranges of the Southern Region. For central Nevada, periodic warm periods allowed many lower elevation winter habitats to remain open and available to wildlife. The good winter moisture receipts in conjunction with very wet conditions during the late spring and early summer period has resulted in much improved range conditions throughout central Nevada, improving production of sage-grouse. Due to two consecutive years of fair production rates, the number of young birds should have increased over the levels seen in 2007. Not only will the availability of young birds be comparatively good this fall, the new season structure should allow sportsmen to more easily locate birds. The 2009 sage-grouse season is expected to be good in central Nevada. It is important to note that even with good bird availability, sage-grouse hunter success can vary widely dependent upon localized population densities, fall weather patterns, and an individual's knowledge of specific hunting areas and sage-grouse habits.

FOREST GROUSE

WESTERN REGION

Harvest

The 2008 Forest Grouse (Blue Grouse & Ruffed Grouse) hunting season was 122 days long, beginning on September 1st and ending on December 31st. During this time period 799 hunters participated in the hunt, harvesting 581 birds, up slightly from last year. Blue grouse make up the majority of the forest grouse harvest with most taken out of the Carson Range of the Sierra Nevada above Reno and Carson City. In the Santa Rosa Range of Humboldt County, 41 ruffed grouse were killed by 64 hunters. This range contains the only known population of ruffed grouse in the Region. Limits for forest grouse were 3 daily and 6 in possession. Harvest figures for the 2008 season are presented in Table 9 for blue grouse and Table 10 for ruffed grouse.

Table 9. Western Region blue grouse harvest

	REGIONAL TOTALS:			Percent Change:	
	2007	2008	10-Yr Avg.	Prev. yr.	vs. Avg.
No. of Birds	540	540	330	0.0%	63.9%
No. of Hunters	712	735	321	3.2%	129.0%
No. of Days	1,484	1880	755	26.7%	149.0%
Birds / Hunter	0.76	0.73	1.1	-3.1%	-33.9%
Birds/Hunter Day	0.36	0.29	0.5	-21.1%	-40.1%

Table 10. Western Region ruffed grouse harvest

	REGIONAL TOTALS:			Percent Change:	
	2007	2008	Avg. 05-08	Prev. yr.	vs. Avg.
No. of Birds	15	41	9	173.3%	355.6%
No. of Hunters	85	64	38	-24.7%	69.9%
No. of Days	146	99	72	-32.2%	37.5%
Birds / Hunter	0.18	0.64	0.3	263.0%	95.4%
Birds/Hunter Day	0.10	0.41	0.2	303.1%	152.8%

Population Status and Productivity Potential

Forest grouse populations are believed to be at moderate levels with stability in most areas. There are no formal surveys or brood counts taking place in the Western Region, however, favorable climatic conditions including a very wet spring in 2009 should allow for good production and recruitment. There was one report of ruffed grouse production in the Santa Rosa's but no numbers were available. However, what limited information is available for the past four years indicates that the Humboldt County ruffed grouse population may be expanding.

Forage and escape cover for forest grouse brood survival in the higher elevations is adequate, centering around aspen stands/riparian areas. Habitat improvement projects initiated by the USFS in the Carson Range will be taking place in 2009.

Fall Prediction

Following the drought conditions that persisted throughout 2007, the winter of 2009 was slightly more favorable, with close to average winter precipitation levels occurring in the western part of the state. A near record amount of precipitation was received in June of 2009 combined with mild temperatures. This scenario should prove beneficial to the area's upland game bird populations. Populations of forest grouse should remain at moderate and healthy levels, providing for adequate hunter enjoyment.

EASTERN REGION

Harvest

The 2008 blue (dusky) and ruffed grouse season was extended for one month and ran 122 days from September 1 to December 31. Last year's season length was 91 days ending on November 30. Bag limits for forest grouse have been 2 daily and 4 in possession since 1985 and were increased to 3 daily and 6 in possession for the 2007 and 2008 seasons. Between 1981 and 1984, bag limits were also 3 daily and 6 in possession in Elko and White Pine counties.

Blue grouse make up the majority of forest grouse harvest. Limited ruffed grouse harvest was reported in Elko County (25 estimated in 2006). For the 2007 season the hunter questionnaire was changed to attempt to get a better sample of ruffed grouse hunters and they reported a harvest of 223 birds by 254 hunters. For the 2008 season, questionnaire data indicated 245 hunters harvested 268 ruffed grouse. Eastern Region ruffed grouse populations are located in the Ruby Mountains, the East Humboldt Range, and in extreme northern Elko County, from the Independence/Bull Run Range complex to the Jarbidge Mountains. The following tables illustrate blue grouse harvest in the Eastern Region.

Table 11. EASTERN REGION BLUE GROUSE HARVEST BY COUNTY
Post-season Questionnaire Data

COUNTY	COUNTY TOTALS:			Percent Change	
	2007	2008	Avg.	Prev. yr.	vs. Avg.
Elko	525	684	372	30%	84%
Eureka	16	51	50	219%	2%
Lander	39	112	46	187%	143%
White Pine	478	527	662	10%	-20%
Eastern Region	1,058	1,374	1,130	30%	22%

Table 12. EASTERN REGION BLUE GROUSE HARVEST
Post-season Questionnaire Data

	REGIONAL TOTALS:			Percent Change	
	2007	2008	Avg.	Prev. yr.	vs. Avg.
No. of Birds	1,058	1,374	1,153	30%	19%
No. of Hunters	861	863	665	0%	30%
No. of Days	1,940	1,951	1,496	1%	30%
Birds / Hunter	1.2	1.6	1.7	30%	-8%
Birds/Hunter Day	0.5	0.7	0.8	29%	-9%

Starting in 2007, ruffed grouse harvest was separated out from forest grouse harvest in the Eastern Region. The 2008 blue grouse harvest increased 30% from 2007 and was 22% above average. Following four consecutive years of White Pine County carrying the highest forest grouse harvest in the Region, Elko County showed the highest harvest in the Eastern Region in both 2007 and 2008. Elko County provided 49% of the region's harvest and White Pine County provided 38%. The Eureka County blue grouse harvest increased 219% from 2007 and was near average. Lander County's blue grouse harvest also increased 187% from 2007 and was 143% above average. Harvest data suggest blue grouse populations experienced average or better production in the Eastern Region in 2008.

Population Status

A total of 20 blue grouse were classified in the Eastern Region in 2008 including 7 hens and 13 young for an average brood size of 3.0 chicks/brood and a young/adult ratio of 1.86. In comparison, a total of 21 blue grouse were classified in the Eastern Region in 2007 including 8 hens and 13 young for an average brood size of 2.2 chicks/brood and a young/adult ratio of 1.62. There were 10 blue grouse classified in Elko County in 2008 including 4 hens and 6 young for an average brood size of 2.5 chicks/brood and a young/adult ratio of 1.50. Ten blue grouse including 3 hens with 7 chicks were reported from White Pine County for an average brood size of 3.5 chicks/brood and a young/adult ratio of 2.33 in 2008. No blue grouse were classified in either Lander or Eureka counties.

Wings were collected from blue grouse hunters in 2008 and assessed to determine male/female ratios and production. A total of 65 wings were collected from White Pine County including 28 males and 37 females for a male/female ratio of 0.76. There were 34 juveniles and 31 adults for a juvenile/adult ratio of 1.1 and a chick/hen ratio of 1.89. For Elko County, 25 wings were collected from blue grouse hunters with a male/female ratio of 2.13 and a juvenile/adult ratio of 3.17 and a chick/hen ratio of 6.3.

Productivity Potential

The major impact to brooding forest grouse is believed to be the condition of riparian habitat. The removal of understory vegetation in riparian areas reduces cover that is valuable for brood-rearing habitat, making chicks more susceptible to predation. Winter moisture was average but spring moisture for 2009 was excellent with the wettest June since 1913. Nesting and escape cover for early brooding in the Eastern Region was good to excellent. Brooding habitat was better in 2009 than in 2008 in the Eastern Region.

Fall Prediction

Forest grouse availability in 2009 is predicted to be good in the Eastern Region. Population levels are predicted to be fair to good in all four counties of the Eastern Region. Eureka and Lander counties have much more limited distribution than Elko and White Pine counties. Blue grouse hunting in 2009 should be good and is expected to exceed last year's harvest.

SOUTHERN REGION

Harvest

The 2008 statewide forest grouse season was extended from the previous 91 day season to a 122 day season, running from September 1 – December 31, 2008. Bag and possession limits remained at 3 daily and 6 in possession, a modest increase over the traditional 2 and 4, which was put into place for the 2007 season. Although the forest grouse season is open statewide, within the Southern Region, only Esmeralda, Lincoln, and Nye counties support blue grouse. Blue grouse are the only species of forest grouse that generally occur in the Southern Region at this time, and provide for 100% of the harvest.

Harvest data collected for the 2008 forest grouse season indicate 72 hunters harvested a total of 22 blue grouse in the Southern Region. 100% of this harvest came from Nye and Lincoln counties. In comparison, 2007 saw 70 hunters harvest a total of 101 blue grouse in the Southern Region. Although hunter interest remained at nearly identical levels to that in 2007, the amount of effort expended by sportsmen as well as the total harvest was down considerably in 2008.

Although questionnaire data provide important information regarding overall harvest and hunter pressure trends, it can be influenced by sampling bias. This bias is particularly apparent when sample sizes are small, as is typically the case with forest grouse. Refer to the following table for a breakdown of the Southern Region harvest, as well as the short- and long-term perspectives of harvest.

Table 13. SOUTHERN REGION FOREST GROUSE HARVEST
Post-season Questionnaire Data

	REGIONAL TOTALS:			Percent Change	
	2007	2008	10yr Avg.	Prev. yr.	vs. Avg.
No. of Birds	101	22	30	-78.2%	-26.9%
No. of Hunters	70	72	41	2.9%	76.0%
No. of Days	195	139	109	-28.7%	27.8%
Birds / Hunter	1.4	0.31	0.92	-78.8%	-67.0%
Birds/Hunter Day	0.52	0.16	0.40	-69.4%	-60.6%

Population Status and Productivity Potential

While central Nevada has been ravaged by drought conditions over the past three years, 2009 has seen a great improvement in moisture receipts and resultant improvements in habitat conditions. The Basin-Wide Precipitation Data Summary provided by the Natural Resources Conservation Service (NRCS) indicates that the winter of 2008-2009, while slightly below average, was a comparatively good one in much of central Nevada. Despite a return to drier conditions during the period of March – mid May, relief in the form of record rainfall was experienced during late May - July over much of central Nevada. June saw precipitation receipts on the order of 250% above the average while July experienced 280% above average precipitation over much of central Nevada. While a cold, wet period in late May and early June can negatively impact upland game production by increasing chick mortality due to hypothermia, it appears that during 2009 overall temperatures remained warm enough that mortality of newly hatched young was somewhat lower than anticipated. The abnormally wet early summer significantly improved range conditions in much of drought ravaged central Nevada boding well for all species of wildlife at least in the short-term.

Over-winter survival of adult blue grouse is expected to have been average during the winter of 2008-2009. Although snow accumulations were greater than during the previous winter, blue grouse have adapted to deal with these conditions very successfully. Blue grouse populations typically display a unique “reversed” migration pattern. Birds normally move to higher elevation habitats with the onset of winter and survive by roosting above ground in conifer trees where they are protected from the elements and can feed on pine needles, often times gaining weight, until spring when they move down to breeding areas.

Fall Prediction

In regard to forest grouse, even more so than with other species of upland game, erratic fluctuations in data and small sample sizes can make post-season questionnaire data somewhat difficult to analyze. Consequently, the data that may be most helpful in making predictions in regard to blue grouse are birds per hunter and birds per hunter day. These data suggest that bird availability was reduced during the 2008 season, which may have been due to more moist conditions compared to those experienced in 2007, which allowed birds to disperse more widely during the season making them more difficult to locate. This past spring and summer has seen another increase in moisture receipts, and if the trend continues

into the fall, it may allow birds to disperse even more widely during the upcoming season, particularly as the season progresses. The blue grouse season in the Southern Region is expected to be fair for 2009. Hunters familiar with the habits of blue grouse should be able to locate birds in their typical haunts, and there should be an increase in the number of young birds this season.

SNOWCOCK

EASTERN REGION

Harvest

Between 1980 and 1994, snowcock seasons were held from September 1 through the 30th. Beginning in 1995, seasons were extended to October 15th to increase hunting opportunity and the potential to provide the opportunity to obtain higher quality capes for preparing taxidermy specimens. Opening dates are generally the Saturday nearest September 1. The snowcock season was 44 days long in 1995 and 46 days long in 1996. The 1997 season was the longest on record, running 48 days from August 29 through October 15. Beginning in 2001 the snowcock season was extended until November 15th. The 2003 season was 93 days long running from August 30 through November 30th. The 2004 season was 88 days long running from September 4 through November 30th. The extension of the season has allowed increased hunter opportunity but doesn't appear to result in a greater harvest. There was a daily and possession limit of one bird beginning with the first season held in 1980 until 2000. Beginning in 2001, the daily and possession limit was two birds. The change in limits has not affected the overall reported harvest but does provide the hunter with a rare opportunity to harvest a second bird if they are lucky.

The Department of Wildlife did not establish a hunt permit system or mandatory reporting procedure for the 1995 or 1996 seasons. Snowcock hunters reported taking six in 1995 and three snowcock in 1996. The free hunt permit system, in place since 1997, is intended to track hunter participation and harvest. Several methods have been tried to monitor harvest and hunter participation since Nevada began hunting snowcock including mandatory hunt permits, voluntary hunt permits, post-season questionnaires, and even follow-up phone surveys. Return rates of the various techniques have ranged between 33% for voluntary return to 47% for questionnaires with pre-addressed returns. In 2005, a total of 7 “mandatory” questionnaires were received and prompted yet another change in the issuance of permits. Due to the extremely low compliance rate of hunters who could easily and without expense download “free-use permits” from the internet, the Elko office staff began to collect contact information from hunters who obtained permits in person. Post-hunt follow-up calls improved reporting compliance greatly.

For the 2008 snowcock hunting season, 87 questionnaires were received from 100 known permits issued (87%). Of those 87 received, 2 were unreadable and 31 indicated that they did not hunt. The 54 hunters who reported spending time in the field, reported harvesting 6 birds, wounding and losing 4 birds, and seeing 553 snowcocks during 109 days of hunting. Reported snowcock harvest has ranged between 2 and 23 birds annually and has averaged approximately 8 birds/year since 1980. Further minor changes in the permitting and reporting requirements will make further improvements for the 2009 season.

Population Status

The habits and remote habitat preference of these birds make standard population surveys extremely difficult. Random sightings and observations noted during other wildlife management activities are recorded. Snowcock density and distribution surveys were previously conducted in conjunction with helicopter mountain goat/bighorn sheep surveys. Aerial surveys conducted since 1994 indicated good distribution of birds throughout the East Humboldt/Ruby Mountain complex in suitable habitats. Actual numbers counted have varied from the record sample of 217 birds observed in 1994 to only 79 in 1995, 83 in 1996, 73 in 1997, 95 in 1998, 73 in 2000, 68 in 2001, 80 in 2002 and 148 in 2003, and 119 in 2004. Beginning in 2005, bighorn sheep surveys and Rocky Mountain goat surveys were rescheduled to late winter to better assess lamb and kid recruitment. Unfortunately, because snowcock data were collected incidental to helicopter sheep and goat surveys, summer aerial surveys are no longer being conducted. If better knowledge on snowcock population trend and distribution is desired, it would be necessary to formalize the procedure and allocate sufficient helicopter time in order to better assess snowcock population and distribution.

Productivity Potential

Climatic conditions for the past few years were represented by average winters with relatively harsh spring weather in occupied snowcock habitat. During the 2008 breeding and nesting periods, above average snow pack was present and spring moisture was well above normal, potentially helping nest success and brood survival. The snowcock population appears to be at low to moderate levels at the current time based on limited observations from hunters and helicopter surveys. More intensive survey work would be needed to adequately assess snowcock population condition and trend.

Fall Prediction

Climatic conditions, habitat preference, the snowcocks wary nature, and the current low to moderate population level are expected to keep harvest levels low. In 2008, 150 more birds were observed by hunters in 30 fewer hunter days than in 2007. Bird availability is expected to be fair to good during the 2009 hunting season and harvest is expected to remain at a low level.

CHUKAR & HUNGARIAN PARTRIDGE

WESTERN REGION

Harvest

The second year of the Junior Upland Game hunting season took place on the 27th and 28th of September. Young adults 15 years of age and younger participated in the two day hunting season. Daily and possession limits remained the same as in 2007 at 6 birds per day and 12 in possession. The young hunters were given the opportunity to harvest chukar, Hungarian partridge, quail and rabbits.

Those 16 years of age and older hunted during the regular chukar and Hungarian partridge season that ran from October 11 thru February 1, 2009. The daily bag limits remained the same and were 6 birds daily and 18 birds allowed in possession. In 2006, the possession limit was increased from 12 birds to 18. Limits were singly or in aggregate for the two species. The 10% hunter questionnaire data provided the following expanded chukar harvest information for the 2008-09 hunting season:

Table 14. WESTERN REGION CHUKAR HARVEST
Post-season Questionnaire Data

	REGIONAL TOTALS:			Percent Change	
	2007	2008	10-Yr Avg.	Prev. yr.	vs. Avg.
No. of Birds	41,749	47,022	57,103	+12.6%	-17.7%
No. of Hunters	9,587	8,239	7,129	-14.1%	15.6%
No. of Days	41,855	33,696	30,511	-19.5%	10.4%
Birds / Hunter	4.35	5.7	8.0	+31.1%	-28.7%
Birds/Hunter Day	1.0	1.4	1.9	+39.9%	-26.3%

Chukar hunters enjoyed better chukar hunting in the Western Region in 2008-09 and ended up harvesting 6,000 more birds than the 2007-08 hunting season. However, the number of chukar harvested this past year remained approximately 10,000 birds below the 10-year average of 57,103 birds. Despite the increase in the regional chukar harvest, the number of hunters who participated in chukar hunting in 2008 dropped by 14%. The number of days hunter's expended hunting chukar also decreased fairly significantly this past year. The lower hunter participation and effort are thought to be the reasons that chukar harvest within the western Region remained below the long-term average.

Although hunter participation and hunter effort declined when compared with the 2007 hunting season, the number of hunters and number of hunter day's expended hunting chukar suggests that interest in chukar hunting remains high. The popularity of chasing chukar remains high despite two consecutive years where chukar hunting has been fairly difficult.

The 47,022 birds that were harvested within the western Region was an increase in harvest of approximately 12.6%. However the statewide chukar harvest remained static compared with the 2007 total. The chukar harvest within the western Region represented 77% of the total statewide chukar harvest. The region had 66% of the total harvest in 2007. This past year, 90% of the birds harvested in the western Region were harvested from Humboldt, Washoe and Pershing Counties. This is almost identical to the 2007 hunting season where 91% of the harvest came from those same three counties.

The bulk of the Western Region chukar harvest occurred in Humboldt and Washoe Counties. More hunters traveled to Washoe County this year to pursue chukar which resulted in 32% of the regions harvest. Humboldt County hunters harvested 30% of the Western Regions total chukar harvest. However,

hunters who hunted in Humboldt County had the most success for their efforts and led the way with 7.8 birds per hunter and 1.7 birds killed per day.

Observations made by NDOW field biologist this past summer have indicated that chukar recruitment appeared to be strong in many areas within the Western Region. Strong recruitment was observed throughout most of the region and generally ranged between 7 and 12 chicks per hen. However, there were a few areas where recruitment appeared to be somewhat lower ranging between 4 and 6 chicks per hen. These areas of lower recruitment were generally observed in the drier environments or on or near areas with predominantly western and southern exposures. Overall, chukar recruitment appears to be above the levels that were observed in 2007 and 2008 and should help to bolster chukar populations in the region. Currently, chukar populations are at or near moderate levels. Another two years of good recruitment and survival will be needed in order for chukar numbers to reach the population levels observed during the 2005-06 hunting season.

NDOW biologists in the western Region also flew helicopter chukar density surveys during the second week of August 2009. Early indications are that most survey routes showed increasing trends in chukar populations in the northwestern portion of the state. However, there were a few survey routes that showed slight decreases in the numbers of birds counted which is likely attributable to differences in habitat conditions and elevation between survey routes. For example, current habitat conditions are improved this year compared with the previous two years, and in some locations birds may have not been as concentrated on water sources. This may have lead to less birds being counted on those routes this year.

Another dry and dismal water year was in store for northwestern Nevada following the very dry winter and spring of 2008-09; fortunately, record setting rainfall was received during the month of June. Some areas within northwestern Nevada received over 2 inches of rainfall during the month. With much needed rainfall, habitat conditions have improved within the Western Region. However, precipitation totals to date for the 2008-09 water year remain at average to below-average levels for most areas in northwestern Nevada.

Improved recruitment in 2008-09 will result in increased chukar numbers and expanding chukar populations in the western Region. Chukar hunting this coming fall and winter should improve when compared with both the 2007 and 2008 hunting seasons. Total harvest for the western region is expected to increase to near the long-term average of 57,000 birds. Hunters can expect to see good numbers of young birds in the harvest.

Table 15. WESTERN REGION HUNGARIAN PARTRIDGE HARVEST
Post-season Questionnaire Data

	REGIONAL TOTALS:			Percent Change	
	2007	2008	10-Yr Avg.	Prev. yr.	vs. Avg.
Number of Birds	1,022	607	1,547	-40.6%	-60.8%
Number of Hunters	554	478	532	-13.7%	-10.1%
Number of Days	2,768	2,424	1,786	-12.4%	35.7%
Birds/Hunter	1.84	1.27	2.9	-31.2%	-56.3%
Birds/Hunter Day	.37	.25	1.0	-32.2%	-74.3%

In 2008, over 80% of the statewide Hungarian partridge harvest occurred within Humboldt and Elko Counties. In the western Region; other counties to report the harvest of “Huns” were Washoe, Pershing, and Mineral Counties. In recent years, the harvest of Hungarian partridge has plummeted when compared with the 10-year average. It may be that the severe drought conditions experienced over the past three-year period have seriously impacted the lower elevation habitats that Hungarian partridge usually inhabit. Hungarian partridge are typically found on alluvial fans or the flats at the bottom of the

canyons. Chukar partridge are somewhat more resilient because they often utilize the entire mountain range and move up and down in elevation depending on available water and forage conditions.

The harvest of “Huns” in the western Region has decreased by over 40% in 2008. When compared with the long-term data, the 2008 harvest shows over a 60% reduction. However, it appears that most hunters who enjoy hunting Hungarian partridge continue to hunt for them, but that they are having a much more difficult time locating birds due to lower population levels. Coincidentally, hunter success rates have also fallen off as bird densities have dropped. Most hunters harvest “Huns” incidentally while pursuing chukar.

Population Status

Strong recruitment of both chukar and Hungarian partridge is expected this year due to the improved habitat conditions. The record rainfall that fell in June of 2009 created excellent habitat conditions throughout the Western Region. Overall, bird numbers are expected to increase, however, it is expected to take at least two more years of good recruitment to once again reach those population levels observed during 2005-06. Adult base population levels will remain at moderate levels within the region.

Significant rainfall in June dramatically improved habitat conditions throughout the northwestern portion of the state. However, the lack of any snowfall during the extremely dry winter of 2008-09 did not provide the much needed runoff that is needed each year to help bolster water flow to springs and seeps. Water availability is improved over the past two years but is still suffering from three-consecutive years of drought.

Productivity Potential

Biologists have reported observing strong recruitment values in most locations within the Western Region. Improved habitat conditions have resulted in increased survival of young birds. Survival of birds through the late summer and fall is expected to be fairly high provided northwestern Nevada receives additional moisture from summer thundershowers. A fall “green-up” would help the birds build the fat reserves that are needed to survive the winter.

Fall Prediction

Hunters should experience a good hunting season this coming fall. Improved recruitment will provide hunters with more opportunity to harvest both chukar and the occasional Hungarian partridge. Hungarian partridge will continue to be more difficult to locate due to low population levels. However, young chukar should make up a fairly high percentage of the fall harvest. Hunting is expected to be good to very good early in the hunting season and more difficult as moisture scatters the birds. The fall prediction for the 2009-10 hunting season is for a much improved hunting season.

EASTERN REGION

Harvest

The 2008 chukar and Hungarian partridge season was 114 days in length running from October 11, 2007 through February 1, 2008. Limits were 6 daily and 18 in possession, singly or in aggregate.

Table 16. EASTERN REGION CHUKAR HARVEST
Post-season Questionnaire Data

	REGIONAL TOTALS:			Percent Change	
	2007	2008	Avg.	Prev. yr.	vs. Avg.
No. of Birds	17,709	10,579	22,704	-40%	-53%
No. of Hunters	3,270	2,275	3,065	-30%	-26%
No. of Days	14,380	9,417	12,661	-35%	-26%
Birds / Hunter	5.4	4.7	7.4	-14%	-37%
Birds/Hunter Day	1.2	1.1	1.8	-9%	-37%

The 2008 Eastern-Region harvest of 10,579 chukars was down for the third year and down 40% from the 2007 harvest. It was 53% below the previous 10-year-average and the lowest harvest since 1997 when only 9,428 birds were killed. Harvest was down along with hunting pressure indicating bird availability was at a four year low and hunters didn't waste time or money to participate. The number of birds per hunter and birds/hunter day also decreased in 2008.

Table 17. EASTERN REGION HUNGARIAN PARTRIDGE HARVEST
Post-season Questionnaire Data

	REGIONAL TOTALS:			Percent Change	
	2007	2008	Avg.	Prev. yr.	vs. Avg.
No. of Birds	752	727	1,719	-3%	-58%
No. of Hunters	561	545	598	-3%	-9%
No. of Days	2,669	2,213	2,030	-17%	9%
Birds / Hunter	1.3	1.3	2.9	0%	-54%
Birds/Hunter Day	0.3	0.3	0.8	17%	-61%

Hungarian partridge harvest decreased again in the Eastern Region. Regional Hun harvest was reported to be 727 birds in 2008 and was 58% below the long-term average. The lowest Hun harvest on record was 66 birds in 1994. The 1999 harvest of 5,497 Hungarian partridge was the highest since 1981 when 6,019 were harvested. The highest reported Hun harvest was 7,011 birds in 1974.

Population Status

The total Eastern Region chukar sample for 2008 was 324 including 15 broods with 115 chicks for 7.6 chicks/brood. A total of 129 adults were observed and 165 young for a young/100 adult ratio of 128. In comparison, there was a total 2007 sample of 732 chukars classified as 476 adults and 256 young with 241 young found in 32 complete broods for 7.5 young/brood in the Eastern Region. The young/100 adult ratio has decreased from 109 in 2005 to 90 in 2006 and 54 in 2007 but increased to 128 in 2008. In Lander County, a total of 292 chukar were classified in 2008 including 12 broods with 88 chicks for 7.3 chicks/brood and 124 adults and 138 young for a young/100 adult ratio of 111. Only seven chukar were classified in Elko County in 2008 including one brood with 6 chicks for 6 chicks/brood and a young/100

adult ratio of 600. Twenty-five chukar were classified in White Pine County in 2008 including two broods with 21 chicks for 10.5 chicks/brood and a young/100 adult ratio of 525. No brood data was reported for Eureka County in 2008.

Chukar and Hungarian partridge populations were extremely low following several years of drought and the harsh winter of 1992-93 but exhibited a remarkable recovery between 1997 and 1999. Population data collected since 2000 suggested partridge populations were above average in the Region except for the past two years. Current data suggest the partridge population in the Eastern Region was at a 12 year low in 2008. Hungarian partridge base populations have been at low levels throughout the Eastern Region and 2008 harvest decreased slightly from the previous year and was well below the past 10-year average (-58%).

Productivity Potential

Above average harvest from 2001 through 2006 indicated chukar populations had recovered throughout most of the Region. The 2007 production year was the poorest on record and this was reflected in bird availability for the 2007 season. Chukar harvest decreased an additional 40% in 2008 and was the lowest since 1997. Base populations throughout the region were below average. Spring green-up was fair until June 2009 and then record precipitation (wettest June since 1913) drastically improved nesting and brooding habitat for chukar. Chukar and Hun production is expected to be good based on habitat conditions and observations of chukar broods so far in 2009.

For the first time since 2001 four helicopter chukar density surveys were conducted in the Eastern Region in 2008. A total of 720 chukars were observed on these four surveys covering ≈49 square miles for 14.7 chukars/square mile. In comparison to data collected between 1986 and 2001, the 2008 survey resulted in the lowest number of birds surveyed on one survey, the second lowest on another, the third lowest on another and the highest on the fourth. All four survey areas have been completely or partially burned, so no completely “intact” areas were surveyed for comparison in the Eastern Region.

Fall Prediction

Chukar hunters are expected to experience fair to good chukar hunting in the Eastern Region in 2009 as birds begin to recover from low levels documented last year. Hungarian partridge hunting is expected to be fair and mostly incidental to chukar hunting.

SOUTHERN REGION

Harvest

The 2008-09 chukar and Hungarian partridge season was 114 days in length beginning on the 11th of October, 2008, and ending on February 1st, 2009. Bag and possession limits remained unchanged at 6 daily and 18 in possession.

On occasion, a few sportsmen report the harvest of a small number of Hungarian partridge in the Southern Region, but the species does not typically occur in the Southern Region and these reports are likely due to misidentification of young of the year chukar. The remainder of this report will deal solely with chukar partridge.

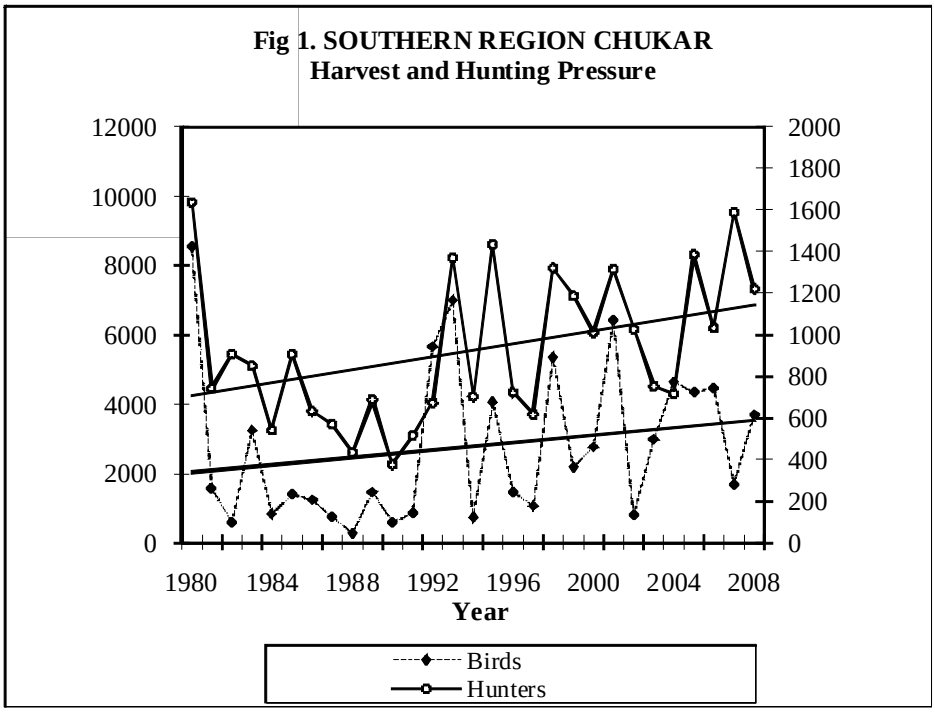


Figure 1 illustrates chukar harvest and hunting pressure trends for the Southern Region, based upon post-season questionnaire data for the 1980-08 period. Although the actual numbers can vary greatly year to year, the trend lines in Figure 1 above make it apparent that overall hunter participation and the total number of birds harvested has been increasing over the past 20 years in the Southern Region. The rapid population growth in Clark County is almost certainly the reason behind the increase. Post season questionnaire data indicate that a total of 1,221 hunters expended 5,198 days of effort and harvested 3,707 chukar during this past season. In comparison, the 2007-08 season saw a total harvest of 1,695 chukar by 1,590 hunters. Participating hunters in 2007-08 expended 6,885 days of effort pursuing chukar. Although a smaller number of hunters spent fewer days afield in 2008-09, the increase in total harvest indicates bird availability was much better this past season throughout the Southern Region. Poor hunting experienced during the 2007-08 season likely resulted in the drops seen in hunter numbers and effort expended in 2008-09. Young of the year chukar were nearly nonexistent in the Southern Region during the 2007-08 season due to drought conditions, which made for very difficult hunting in most areas.

Table 18. SOUTHERN REGION CHUKAR HARVEST
Post-season Questionnaire Data

	REGIONAL TOTALS:			Percent Change	
	2007	2008	10yr Avg.	Prev. yr.	vs. Avg.
No. of Birds	1,695	3,707	3,562	118.7%	4.1%
No. of Hunters	1,590	1,221	1,134	-23.2%	7.7%
No. of Days	6,885	5,198	4,050	-24.5%	28.4%
Birds / Hunter	1.1	3.04	3.3	184.8%	-8.6%
Birds/Hunter Day	0.25	0.71	0.9	189.7%	-22.8%

Population Status

Favorable moisture patterns during the 2004-2006 period resulted in an increase in chukar populations throughout central Nevada for a short time. Unfortunately, drought conditions returned to central Nevada during the latter part of 2006 and through the summer of 2007. While adult carryover was good due to a mild and dry winter in 2006-07, production during the spring of 2007 was severely hampered by poor range conditions, resulting in a marked decrease in chukar populations in Nye and Esmeralda counties. 2008 saw a return to somewhat more favorable conditions which resulted in moderate production and recruitment of young birds increasing the base population somewhat. Production in 2009 appears to have been good due to a very wet spring and summer in central Nevada and chukar populations are expected to benefit greatly from improved habitat conditions allowing for another moderate increase in birds.

Chukar populations inhabiting Lincoln County had been doing well for a number of years leading up to 2007. Although recent wildfires have increased chukar habitat overall in Lincoln County, poor production experienced in 2007 hampered chukar expansion into these new areas. Although base populations were somewhat low, good production this past spring, in addition to newly created habitats, should result in modest increases in chukar population levels in 2009.

Despite a relative boom in chukar populations in Clark County in 2001, typical dry Mojave Desert conditions have been the norm since. Overall, this portion of the Southern Region had experienced dry conditions since November 2005 resulting in a noticeably reduced base population of chukar. Due to increased production resulting from favorable moisture patterns during late 2008 and early 2009, chukar numbers are expected to rebound somewhat from the lows experienced the past several years.

Productivity Potential

While central Nevada has been ravaged by drought conditions over the past three years, 2009 has seen a great improvement in moisture receipts and resultant improvements in habitat conditions. The Basin-Wide Precipitation Data Summary provided by the Natural Resources Conservation Service (NRCS) indicates that the winter of 2008-2009, while slightly below average, was a comparatively good one in much of central Nevada. Despite a return to drier conditions during the period of March – mid May, relief in the form of record rainfall was experienced during late May - July over much of central Nevada. June saw precipitation receipts on the order of 250% above the average while July experienced 280% above average precipitation over much of central Nevada. While a cold, wet period in late May and early June can negatively impact upland game production by increasing chick mortality due to hypothermia, it appears that during 2009 overall temperatures remained warm enough that mortality of newly hatched young was somewhat lower than anticipated. The abnormally wet early summer significantly improved range conditions in much of drought ravaged central Nevada boding well for all species of wildlife at least in the short-term.

Preliminary chukar brood survey data collected in central Nevada indicate an increase in production compared to that experienced the past few years. In addition to improved production, enhanced habitat conditions and insect production resulting from the wet spring and summer should result in very good survival of young of the year birds into the fall and winter.

Preliminary chukar brood surveys in Lincoln County indicate good production levels in east central Nevada in 2009. Improved summer moisture has resulted in moderate to good conditions across broad areas of Lincoln County with some areas receiving higher amounts of moisture than others.

In Clark County, precipitation receipts in late 2008-early 2009 were greater than the previous three winter-spring seasons. Precipitation amounts and distributions were an improvement, yet far from optimal. As a result of improved precipitation receipts, chukar production should have been higher relative to the previous three years. Unfortunately, the monsoon season has not produced a continuation of conditions favorable enough to sustain vigor in many plant species. Insect availability in early-midsummer may be characterized as poor to fair throughout much chukar habitat in Clark County.

Fall Prediction

In central Nevada, increased production and improved habitat conditions should help increase overall chukar numbers and result in more young chukar being available for harvest during the 2009-10 season than has been the case the past few years. Although, if favorable conditions persist into the fall, chukar may be more dispersed and comparatively more challenging to find than they tend to be during drought periods. Despite this fact, increased numbers of birds should allow for a fair to good season in central Nevada.

In Lincoln County, the outlook is also fair to good. Despite a somewhat lowered adult base population, good production should result in an overall increase in chukar in east central Nevada for the 2009-10 season. It is likely that chukar will begin to be encountered in recently burned areas that previously did not support viable numbers of birds

Very productive years are relatively rare in the Mojave Desert, but bird availability in Clark County is expected to be comparatively fair to good due to increased production. Small chukar populations may be encountered on north and south ends of the Spring Range, Virgin Mountains, upper elevations of the Gold Buttes and for the hearty the Highland Range and McCullough Range.

QUAIL

WESTERN REGION

Harvest

Since 2006, NDOW has been collecting upland harvest data by polling a sample of hunters who purchased upland game stamps rather than using the standard 10% hunter harvest questionnaire which had been used for past 30 years. This new approach of collecting harvest data is intended to target a greater percentage of people that actually hunted upland game during the season. This past year, slightly over 26,000 upland game stamps were sold and questionnaires were sent out to approximately 15,000 hunters who purchased an upland game stamp. Information gathered from hunters using this sampling technique indicates that quail harvest during the 2008-09 upland seasons increased from what was reported in 2006-07 by approximately 26 percent. Overall, quail harvest this past year was approximately 50 percent above the long-term trend.

Table 19. WESTERN REGION CALIFORNIA QUAIL HARVEST

	REGIONAL TOTALS:			Percent Change	
	2007	2008	10-Yr Avg.	Prev. yr.	vs. Avg.
No. of Birds	28,975	36,079	23,928	24.5%	50.8%
No. of Hunters	3,873	4,775	2,979	23.3%	60.3%
No. of Days	15,463	19,746	11,386	27.7%	73.4%
Birds / Hunter	7.5	7.6	8.2	1.0%	-7.5%
Birds/Hunter Day	1.9	1.8	2.1	-2.5%	-14.1%

Table 20. WESTERN REGION MOUNTAIN QUAIL HARVEST

	REGIONAL TOTALS:			Percent Change	
	2007	2008	2-Yr Avg.	Prev. yr.	vs. Avg.
No. of Birds	845	1,374	1,110	62.0%	23.7%
No. of Hunters	274	406	340	48.1%	19.4%
No. of Days	833	1,803	1,318	116.0%	36.8%
Birds / Hunter	3.1	3.4	3.3	10%	3.2%
Birds/Hunter Day	1.0	0.8	0.9	20.0%	11.1%

Mountain quail harvest showed an increase of 62 percent from the previous year. Expansion of the small number of mountain quail hunters responding to this questionnaire along with possible misidentification issues between California quail and mountain quail may be inflating harvest levels for mountain quail.

Population Status

Northwestern Nevada offers knowledgeable quail hunters opportunities to pursue both California quail and mountain quail within the same day and sometimes on the same mountain range. Overall, mountain quail make up a very small portion of the total quail harvest within the Western Region as populations are well below historic highs. This past year, hunters reported harvesting approximately 1,374 mountain quail which represented only four percent of the total quail harvest in the western region. However, the western region produces the bulk of the statewide mountain quail harvest opportunity with over 90 percent of the harvest occurring in the northwestern portion of the state. Recent trapping and transplanting efforts in portions of Churchill County are beginning to produce huntable populations of

birds. This past spring 87 mountain quail were released in the Stillwater Range in an attempt to reestablish them back into their historical range.

California quail are found throughout the region and are typically associated with upland riparian areas or urban interfaces. Populations of California quail, like most other upland species, are greatly influenced by precipitation levels and the timing of weather events over the course of the year. For example, heavy winter snowfall can contribute to above average losses of adults while a lack of timely spring moisture can dramatically reduce production and recruitment rates.

Productivity Potential

This past winter produced generally below average precipitation receipts with no major snow events that would have lessened quail survivability over the winter. Dry conditions persisted into the early spring but were broken with a series of weather fronts that produced significant amounts of moisture in the form of rain during late May and into early June. It appears that these late spring rains were helpful in stimulating production. Brood survey information and general observations of quail production near the urban interfaces indicate average to above average production. Quail production in upland areas also appears to be near average with most quail groups having young associated with them.

Fall Prediction

Quail populations within the Western Region are thought to be at moderate levels based on harvest numbers and production and recruitment rates observed this summer. Hunters should find relatively decent numbers of California quail to pursue in the agricultural areas and in areas surrounding the urban interface. California quail numbers in upland areas in most cases should be at or above levels observed last year. Mountain quail will still be available to the hunter in the mountains where they exist but will continue to be a challenge to locate in the vast amount of habitat available to them.

EASTERN REGION

Harvest

The 2008-09 quail season was 114 days in length running from October 11, 2006 through February 1, 2008. It was concurrent with the chukar and Hungarian partridge season. Bag limits of 10 daily and 20 in possession were the same as last year in all four of the Eastern Region counties for all quail species except mountain quail. Mountain quail limits were 2 daily and 4 in possession.

Table 21. EASTERN REGION QUAIL HARVEST
Post-season Questionnaire Data

	REGIONAL TOTALS:			Percent Change	
	2007	2008	Avg.	Prev. yr.	Vs. Avg.
No. of Birds	256	420	375	64%	12%
No. of Hunters	113	117	106	4%	10%
No. of Days	277	299	262	8%	14%
Birds / Hunter	2.3	3.6	3.5	58%	1%
Birds/Hunter Day	0.9	1.4	1.4	52%	-2%

Quail harvest in 2008 increased 64% over the previous year in the Eastern Region and was 12% above the long-term average. The Eastern Region California quail harvest accounted for less than 1% of the

total statewide harvest. Thirteen mountain quail were reported harvested in the Eastern Region from Elko County compared to four last year.

Population Status

The base population of quail was reduced by the severe winter of 1992-93. There were 675 mountain quail from China Lake Naval Air Weapons Station released into Elko and Lander counties between 1993 and 1996 and between 2000 and 2002 (87 mountain quail were released along McDonald Creek in the Bruneau River drainage in the spring of 2002). In addition to mountain quail releases, 218 California (Valley) quail were released into Lander and White Pine counties in 1996 and 40 California quail were released at the Baker Silver Creek Ranch in White Pine County in the spring of 2004. A follow-up release of 41 California quail (14 males, 27 females) was made at the Baker's Silver Creek Ranch in 2005. In the spring of 2009, 242 California quail were released at two sites on the west side of the Ruby Mountains in Unit 102. Brood surveys, sightings, harvest and hunter-day data indicate quail populations remain at low levels throughout the Eastern Region.

Productivity Potential

Precipitation since the 2008-09 winter has been above average throughout most of the Eastern Region and range conditions were excellent for nesting and brooding habitat in 2009. June was the wettest on record since 1913. The productivity potential for quail was estimated to be good in the Eastern Region.

Fall Prediction

Eastern Region quail populations are very low compared to most of the State. Small relatively isolated quail populations in the Region will provide limited hunting opportunities during the 2009 season. Quail are normally harvested in the Eastern Region by hunters pursuing other species such as rabbits and chukar. The quail harvest should be higher than last year in the Eastern Region.

SOUTHERN REGION

Harvest

The 2008-2009 quail season began October 11th, 2008 and extended through February 1st, 2009 (114 days). Limits were 10 daily and 20 in possession. An estimated total of 3,258 Gambel's quail hunters harvested 16,516 birds during the 2008-09 season in the Southern Region. This total represents an 11.7% increase from the 2007-2008 quail season.

Table 22. SOUTHERN REGION GAMBEL'S QUAIL HARVEST
Post-season Questionnaire Data

	REGIONAL TOTALS:			Percent Change	
	2007	2008	99-08 AVG.	PRE. YR.	10 YR. AVG.
No. of Birds	14,783	16,516	16,007	11.7%	3.2%
No. of Hunters	3,928	3,258	2,283	-17.1%	42.7%
No. of Days	17,526	12,815	9,279	-26.9%	38.1%
Birds / Hunter	3.80	5.10	7.78	34.2%	-34.5%
Birds/Hunter Day	0.80	1.30	1.87	62.5%	-30.4%

Quail harvest, birds per hunter, and birds per hunter day all increased compared to the 2007-08 season while number of hunters and number of hunter days decreased in comparison. Number of birds harvested, numbers of hunters, and number of hunter days were below the 10-year average, while birds

per hunter, and birds per hunter day were above the 10-year average. The following table presents current harvest figures as well as short- and long-term harvest perspectives.

Table 23. SOUTHERN REGION QUAIL HARVEST BY COUNTY
Post-season Questionnaire Data

	2007-08	2008-09	% Difference
Clark	11,218	12,307	+9.7%
Esmeralda	0	43	+100%
Lincoln	3,057	3,429	+12.2%
Nye	508	737	+45.1%
Total	14,783	16,516	-17%

Clark County supported the highest percentage (79%) of the harvest for the region. Lincoln County was next with approximately 21% of the Gambel's quail harvested, followed by Nye at 4.5% and Esmeralda County with 0.2%.

Population Status

Drought conditions have continued throughout much of the Southern Region, with periods of slight relief coming from scattered summer thunderstorms. Typical Mojave Desert dynamics are manifested with some areas showing good production of quail, while other areas appear moderate to low. Quail populations are low to moderate throughout the Southern Region. Quail harvest showed an increase in the 2008-09 season, likely due to increased recruitment as a result of slightly improved habitat conditions.

Productivity Potential

Limited brood surveys were conducted in the Southern Region during 2009. Moderate numbers of birds observed indicate an upward trend in bird numbers for 2009. Above average summer moisture across areas of the Southern Region should allow for increased cover, forage, and insects, which should benefit quail.

Fall Prediction

According to the DOE-CEMP, precipitation in southeastern Nevada is ≈100% of average. Moderate precipitation during the mid-summer of 2009 should result in quail going into fall in good condition. Isolated summer thundershowers should result in areas with moderate to good range conditions that will benefit quail. Gambel's Quail populations are at low-to-moderate levels, with most areas experiencing moderate-to-good production that will likely lead to increases in harvest.

PHEASANT

WESTERN REGION

Harvest

Post-season questionnaire data indicated that 428 pheasants were harvested in the Western Region during 2008. Hunters expended 1,206 days in pursuit of pheasants with an average of 0.9 birds per hunter and 0.4 birds per hunter day. Hunter participation continues to increase and now is similar to the 10-year average. Birds/hunter and birds/hunter day figures both remain approximately 40% below their 10-year averages. (Table 1.)

Table 24. WESTERN REGION PHEASANT HARVEST
Post-season Questionnaire Data

	REGIONAL TOTALS:			Percent Change	
	2007	2008	10-Yr Avg.	Prev. yr.	vs. Avg.
No. of Birds	311	**428**	739	38%	-42%
No. of Hunters	308	**493**	520	60%	-5%
No. of Days	760	**1,206**	1,073	59%	12%
Birds / Hunter	1.01	**0.87**	1.5	-14%	-41%
Birds/Hunter Day	0.41	**0.35**	0.7	-13%	-48%

Population Status

The Western Region pheasant population is thought to be at low levels with small populations located in Humboldt, Pershing, Lyon and Churchill Counties. The largest of these populations exists in northern Humboldt County. Pheasant numbers in Humboldt County appear to have peaked in 2003. Steady declines in harvested bird numbers since 2003 indicates that the population is below levels found during 2003.

The pheasant population that exists at the Mason Valley Wildlife Management Area in Lyon County has declined to very low levels. This can be confirmed by long-term pheasant crow call count data, which is recorded on the area in the spring for a 6 week period. In 2009, crow counts on MVWMA were averaging 1.3 calls per week. Long-term averages for MVWMA are 15 calls per week. The 2009 crow count average represents a 91% decrease in calls per week from the long-term average. Given this drastic decline in the pheasant population at MVWMA, a pheasant augmentation program was initiated in 2009. This program involves the use of a Surrogator. A Surrogator is a self contained unit that provides food, water, warmth and protection to chicks for the first 5 weeks of the bird's life. Studies show that the greatest mortality occurs during the first 5 weeks. Also, it has been inferred that by placing a surrogator in a location where a manager would like to establish a population that birds will live and reproduce where they were raised and released. This year, two surrogators were utilized at MVWMA. In mid-May 68 ring-necked pheasants were placed in one box while 61 Manchurian cross pheasants (Manchurian pheasants are desired because these birds exhibit naturally wild characteristics crossed with ring-necked stock) were placed in a second box. A total of 63 birds were released in early June all marked with white leg bands. Pre-release mortality totaled 66 birds from both boxes. The second batch of birds were placed into the two surrogators in early June and consisted of 60 Manchurian cross and 65 ring-necked pheasants. The second release occurred in late July. Released birds were fitted with yellow leg bands and totaled 107. Pre-release mortality was 18 birds. A total of 170 pheasants were released in 2009. Additionally, this program calls for the release of birds for at least the next two years with two more surrogators being purchased with a minimum release complement of 250 birds per year. Monitoring of these birds will start in mid-August. NDOW will also be implementing a predator control program for fiscal years 2011 and 2012 with the intent of providing increased chick survival rates. As part of the pheasant program, MVWMA will be planting more cereal grains and will provide additional food plots on the area.

Pheasant numbers in Pershing County remain low. It is thought that the many pheasant hunting clubs that encompass Lovelock Valley have aided in providing the wild population with food, water, escape and thermal cover. This valley is periodically subject to drought because of its reliance on Rye Patch Reservoir for irrigation. During drought years many of the agricultural fields do not produce crops which reduces pheasant habitat throughout the valley. Multiple drought years and clean farming practices with less cereal crops grown further contribute to Lovelock Valley's low pheasant population.

The pheasant population around the Lahontan Valley in Churchill County is considered to be at extremely low levels. Field observations from biologists and the public indicate very low bird numbers. Harvest levels have remained low with 12 pheasants harvested in 2008 and a 10-year average harvest of 23 birds. Agricultural practices that favor alfalfa combined with increased urbanization have almost eliminated the pheasant population in the Lahontan Valley.

Productivity Potential

Agricultural regimes in Humboldt County and MVWMA still practice delayed cutting of alfalfa and other crops that favor hen and chick survival during the nesting/brood rearing period. These areas also provide a variety of escape and thermal cover. It is thought that the level of moisture received in June 2009 should have helped habitat conditions associated with nesting and brood rearing in Humboldt County. No formal pheasant brood surveys are conducted in the Western Region.

Fall Prediction

Humboldt County has provided the majority of the statewide harvest since 1999. In 2008, Humboldt County produced 73% of Nevada's pheasant harvest. Humboldt County should provide the greatest harvest opportunities in the state during the 2009 season. Pershing County (15% statewide harvest 2008) will also offer limited opportunities for the upcoming season. Pheasant hunting throughout the rest of the Western Region will again rely heavily upon pen raised birds for harvest opportunities.

SOUTHERN REGION

Harvest

In 2008, hunter questionnaire data indicated 18 pheasants were harvested by 65 hunters. Collectively, hunters expended 113 day afield. The Southern Region accounted for 4% of the statewide pheasant harvest and 11% of the total number of pheasant hunters.

Population Status

The small pheasant population in Moapa Valley has been impacted by protracted drought conditions, habitat loss and high predation rates. Department personnel on OWMA indicated no pheasants have been observed on the management area thus far in 2009. Presently, there are no data or accounts that would suggest a viable pheasant population exists in Moapa Valley.

Re-establishment of a viable pheasant population would likely require releases of wild birds, adequate precipitation, habitat conservation, and, pending the determination of overall effectiveness, continuance of raven control.

Fall Prediction

Pheasant hunting opportunities in Moapa Valley are extremely limited, perhaps nonexistent. In recent years, opportunities to hunt pheasants in the Southern Region have declined due to downward population trend and habitat loss. Presently, the pheasant population in the Moapa Valley is not deemed viable. Recently, there have been several unsubstantiated reports of pheasants having been released in Pahranagat Valley, Lincoln County. No releases of pheasants in Lincoln County have been authorized by NDOW.

TURKEY

WESTERN REGION

Harvest

Fall 2008

Three separate limited entry hunts each lasting 10-days were conducted on the Mason Valley Wildlife Management Area (MVWMA) during the fall of 2008. The first hunt period began on October 5th, 2008 and the last one concluded on November 3rd, 2008. Quotas consisted of 10 resident tags per hunt period. The hunt allowed for the take of any turkey, tom or hen. Harvest results for the 2008 fall hunt are depicted in Table 1.

Table 25. FALL 2008 TURKEY HARVEST – WESTERN REGION

Area	# Tags Issued	Percent Return	# Turkeys Harvested	% Success Participants*
MVWMA	33	91%	7	30%
Lyon County	26	100%	11	50%

*Participant success determined by dividing harvest by the number of hunters reporting that they hunted.

Hunters expended an average of 0.61 days scouting on the MVWMA prior to their hunt in 2008 which compared to an average of 0.88 days in 2007. Hunter days in the field decreased from 2.68 days expended in 2007 to 2.00 days in 2008. Based on these figures hunters invested more time hunting than scouting during the fall of 2008 which is a departure from what has occurred in past years.

Spring 2009

There were 5 hunt periods on the MVWMA, the first beginning on March 25th, 2009 and the last concluding on May 5th, 2009. Each hunt period included 15 resident, and one nonresident tag. Churchill and Lyon Counties hunt seasons, which were "open quota" hunt units, began on March 25th 2009 and extended until May 5th 2009. An open quota system allows any hunter the opportunity to take to the field each season to hunt turkey.

Humboldt County had an open quota season in Paradise Valley. Persons wishing to participate in this hunt were required to obtain permission from a Paradise Valley private landowner and submit a form provided by the landowner. Harvest results for all spring 2009 hunts are illustrated in Table 2.

Table 26. SPRING 2009 TURKEY HARVEST – WESTERN REGION
Based Upon Post-Season Questionnaires (Resident and Non-Resident)

Hunt Area		# of Tags Issued	# of Questionnaires Returned	DNH	Number Successful	Percent Success*
Mason Valley WMA		64	60	5	7	13%
Lovelock Valley		10	8	1	5	56%
Open Quota Areas	Lyon County	181	51	16	6	11%
	Paradise Valley	21	10	1	5	56%
	Churchill County	95	35	8	6	26%
Western Region Totals:		362	166	31	29	32%

*Participant success determined by dividing harvest by the number of hunters reporting that they hunted.

During the 2008 and 2009 seasons, the Western Region experienced poor hunter success on the MVWMA as well as the surrounding Lyon County private lands. Normally the MVWMA averages around 30% – 45 % hunter success rates. The MVWMA success was at 13%, which is a 65% decline in hunter success when compared to last year. This low harvest is a direct result of two consecutive years of below average poult production. Drought conditions experienced over the last several years have reduced turkey densities making it difficult for hunters to locate and harvest turkeys. A total of 181 tags were issued for Lyon County compared to 274 tags issued during the previous year which represented a decrease of 33%. For many years, the Lyon County open quota hunt and the MVWMA hunt have had similar hunter success rates. This year's hunter success rate of 11% was well below the norm and is a good indicator of low overall bird numbers in Lyon County.

Paradise Valley landowners issued 21 tags this year compared to 12 tags last year which was an increase of 75%. The Paradise Valley hunter success rates reported this past year were good at 56%, but still below what was reported last year. Land owners most likely allowed more participation because of increased observations of birds.

Churchill County hunter success rates for the 2009 spring hunt were 26% and are the same as reported last year. Newly enacted for the 2010 season is a limited quota hunt structure designed to reduce hunter congestion on a limited resource. The open quota system is being discontinued because of low overall success rates coupled with hunter complaints. Other areas of the state in which NDOW has discontinued the open quota system have seen dramatic increases in hunter success rates.

Hunter success rates reported for the 2009 spring turkey season in Pershing County were 56%, which was similar to what was reported during the 2008 spring season. Hunter opportunity was split into two seasons in Lovelock Valley with the first season beginning on March 25th and concluding on April 13th while the second season started on April 14th and concluded on May 3rd. Splitting this season and reducing tag numbers available for this hunt appears to have aided hunters in accessing private property and increasing hunter success rates from what was observed during previous years.

Population Status

Low hunter success rates experienced by hunters during the previous fall and spring hunts on the MVWMA combined with a reduction in the harvest of yearling male turkeys is an indication of low production rates and declining turkey numbers. Observations during the summer of 2009 on the MVWMA indicate above average brood sizes ranging from 9-10 poults per hen. Lyon County habitat conditions in 2009 were dry throughout the winter and early spring months. Early June rains alleviated drought like conditions allowing for improved habitat conditions for hatching and raising young turkeys. Additionally cultivated crops such as cereal crops, field corn, and sorghum are grown on the Mason Valley Management Area. These agricultural areas provide nesting and brood rearing habitat for young turkey poults during the growing season. Crops are harvested at a later date in this area to allow ample time for chicks to develop and escape mechanized harvesting equipment. The Rio Grande subspecies is noted for large clutch sizes and can produce large numbers of young when environmental conditions are favorable. The MVWMA wild turkey population is thought to be stable at low levels.

Other turkey populations within the Western Region continue to exist at relatively low densities in association with available habitat. Desert shrub communities provide needed cover and protection in and around agricultural fields. The fragmentation of turkey habitat that exists in Churchill County allows for low densities of turkeys that are spread out across a large geographic area. High hen mortality occurs in agricultural fields in Churchill County where the cover in fields provides good nesting habitat but makes birds susceptible to mechanical harvesting equipment. The Churchill County turkey population is believed to be static at low levels. The new hunt structure for 2010 is an attempt to reduce hunter congestion and allow for easier access to private land.

Pershing County turkeys are associated with private land river bottoms and adjacent alfalfa fields. Salt desert brush communities which outline the agricultural fields provide escape cover. Additionally, scattered cottonwood trees provide roosts for turkeys. Lovelock Valley is somewhat similar to Lahontan

Valley except that the Humboldt River corridor provides a greater expanse of thick cover with less urbanization than what occurs in Lahontan Valley. The Humboldt River to the east of Lovelock may provide for the establishment of a strong and stable turkey population in the future.

Paradise Valley appears to have a stable turkey population. Large amounts of private land that are not under cultivation provide good concealment for raising young. Native vegetation combined with agriculture allows for stability in the population.

EASTERN REGION

Harvest

The Eastern Region had 5 turkey hunt choices in 6 units located in 3 counties that were open for turkey hunting during the 2009 spring season. These hunts included Hunt Unit 102 in Elko County, Hunt unit 103 in Elko and White Pine counties, Hunt Units 114 and 115 in White Pine County, and Hunt Units 151 and 152 of Lander County along the Humboldt River.

There were 27 turkey tags in Unit 102 (Lamoille) and 25 hunters reported spending 59 days scouting and 133 days hunting. Three tag holders reported not hunting. Twelve turkeys were harvested (55% success) including seven toms and five jakes and one bird was reported lost. Hunter success increased from 42% success in 2008 to 55% in 2009.

There were 16 turkey tags in Unit 103 (South Ruby), 15 tags were sold and 14 hunters reported spending 24 days scouting and 92 days hunting. Three tag-holders reported not hunting. Two turkeys were harvested (18% success) including one tom and one jake. Hunter success increased from 10% in 2008 to 18% in 2009.

Three turkey tags were issued for Units 151 & 152 in Lander County and the three hunters reported spending 7 days scouting and 7 days hunting. All three hunters harvested toms. This was the second year for this hunt and hunters achieved 100% success both years.

There were 3 turkey tags issued for Unit 114 in White Pine County and 2 hunters reported spending 2 days scouting and 10 days hunting. One tom was harvested for 50% success. One tom was harvested last year as well.

Nine turkey tags were issued for Unit 115 in White Pine County. The 9 hunters reported spending seven days scouting and 40 days hunting. Eight turkeys were harvested including 6 toms and 2 jakes. Hunter success in Unit 115 increased from 75% in 2008 to 89% in 2009.

Population Status

No turkeys were released in the Eastern Region during 2008. The Ruby Mountain turkey populations in Units 102 and 103 are doing well. Frequent turkey observations from Lamoille, the South Ruby Mountains and the South Fork area were reported from 2004 through 2008 and both of these populations are gradually spreading out onto public land along the western benches of the Ruby Mountains. Hunt Unit 065 was added to the 102 hunt area for the upcoming season. Turkeys utilize habitat along the South Fork of the Humboldt River in the Twin Bridges area. This change will make turkeys in this area available to hunters. Hunters should know that this area is mostly on private lands and permission is required prior to hunting the area. Turkeys do not currently occur in any other portion of Unit 065.

Reports from Unit 101 indicate the turkey population is gradually spreading throughout available habitat in Clover Valley and some turkeys have been documented in North Ruby Valley. A new hunt has been established for the Clover Valley area beginning in 2010. This hunt area is almost entirely on private land and hunters are encouraged to get land owner permission prior to applying for a tag.

During 2006, the Utah Division of Wildlife released Rio Grande Turkeys on the Utah (east) side of Pilot Peak. Surveys of turkey habitat on the Nevada side have documented use by turkeys. A new hunt has been established for the Nevada portion of Pilot Peak beginning in 2010. This hunt is largely public access.

Observations of turkeys in Hunt Unit 114, White Pine County have dropped off sharply in recent years. Hunter success has followed with decreased hunter observations and success. This hunt unit will close beginning in 2010 and will remain closed until further notice. Turkey numbers in Hunt Unit 115 remain strong with excellent hunter success and this hunt will continue.

During the summer of 2007 fires burned much of the areas used by turkeys in the Bruneau River area and the future of that release is uncertain. Limited reports indicate that turkeys are still present and as the habitat recovers in the area, turkeys may be able to make a comeback. Conditions and populations will continue to be monitored.

Productivity Potential

Reported observations of turkeys in the Region indicate that they are expanding from original release sites. Spring moisture was outstanding this year with June precipitation being recorded as the second wettest June ever and the wettest since 1913. Broods have been reported in most of the turkey areas during the summer. With reports of jakes and good brood production during 2009 the outlook for the spring 2010 turkey hunts is good.

Fall/Spring Prediction

Turkeys in Units 102 (Lamoille) and 103 (South Rubies) and the White Pine County Hunt Unit 115 are believed to be stable with a sufficient male population that will allow spring hunts to continue. Hunt 114 in White Pine County will close beginning in 2010. Clover Valley and the Pilot Range both support large enough populations to allow hunts starting in 2010. The Lander County turkey population is expanding and doing well with broods observed this summer. Hunting should be good again in Lander County. The future potential for hunts in the Eastern Region looks promising.

SOUTHERN REGION

Clark County

Harvest

Fall 2008

In the limited entry hunt, hunters vied for 22 either-sex turkey tags in Moapa Valley, Clark County. Tags were apportioned to one nonresident and ten residents in each of two consecutive seasons: October 5th through October 14th and October 15th through October 24th.

Based on questionnaire data that included 21 respondents, 20 hunters in Moapa Valley collectively expended 24 days scouting and 38 days hunting. One tagholder did not hunt. On average, hunters scouted less than two days and hunted nearly two days. The turkey harvest in Moapa Valley was comprised of ten hens and one tom. In 2007, the harvest consisted of one jake and four toms. In the 2008 seasons, there was no reported wounding loss. Overall, hunter success was 55%, and represented an increase relative to the 38% reported last year.

Spring 2009

The spring limited entry drawing in Moapa Valley involved three consecutive ten-day seasons: March 25th – April 3rd, April 4th – April 13th, and April 14th – April 23rd. One nonresident and five resident tags were allotted in each of the three seasons.

Based on questionnaire data submitted by 15 hunters, five toms and four jakes were harvested. In 2008, nine toms and two jakes were harvested. All respondents in the 2009 spring seasons actively hunted, yet two hunters chose not to harvest. One turkey was reported as lost. Hunter success among 15 hunters equated to 60%, and reflected a decrease relative to the 69% reported last year. Overall, hunters expended 45 days scouting and 42 days hunting. On average, hunters scouted three days and hunted slightly less than three days.

Lincoln County

Harvest

Wild turkeys were initially introduced into Lincoln County in 1999. Initial releases proved successful and a limited hunt was opened in 2001. Turkeys initially were found using private lands heavily. Hunting pressure caused birds to move to adjacent public lands where they appear to have done reasonable well despite mostly poor habitat conditions. Additional releases have been done in various locations around Lincoln County which has resulted in wild turkeys being found in low densities across a wide portion of the landscape. Turkeys may still be found associated with private lands, although the bulk of the turkeys appear to be located on public lands at this point. Although drought conditions have prevailed through most of the last 10 years, turkeys have survived, but have not thrived. Large expanses of dense pinyon-juniper have burned in both the Clover Mountains (Unit 242) and the Delamar Mountains (Unit 241) in central Lincoln County. These areas should have several varieties of oak brush coming back in them that could provide an excellent source of forage for turkeys. Many times springs or seeps show up in these burned areas which provide sources of insects as well as water.

The Wildlife Commission approved four separate seasons for the Spring 2009 Wild Turkey Hunt in Lincoln County. The first was a Resident Junior Spring Wild Turkey Hunt with an open quota. The dates were March 25th – April 3rd, 2009. A total of 42 tags were issued for this hunt. The remaining three hunts were Resident/Nonresident Limited Entry Spring Turkey hunts. The dates for these were April 4th – April 13th, April 14th – April 23rd, and April 24th – May 3rd, 2009 respectively. Quotas were 30 resident tags and 3 nonresident tags for each hunt period. The following table depicts the results of these hunts as compared with previous years:

Table 27. Lincoln County Turkey Harvest

		REGIONAL TOTALS:			Percent Change	
	2007	2008	2009	2001-09 AVG	PRE. YR.	9 YR. AVG.
Number of Tags Issued	295	117	140	80	20%	75%
Total Birds Harvested	48	18	10	12	-44%	-17%
Percent Success	16%	15%	7%	17%	-55%	-58%

Return information from Lincoln County wild turkey hunters shows a 20% increase in turkey tags available for the 2009 season. The number of birds harvested showed a 44% decrease from the previous year and 17% below the long-term average. Ten hunters reported that they had opportunities to harvest turkeys, but chose not to. There are several potential reasons for the drop in success for wild turkeys in Lincoln County including dry spring weather conditions over the past two years that has resulted in poor recruitment, high numbers of nest predators like ravens that may be lowering nest success, and poor weather conditions during the 2009 hunt that appeared to delay the breeding season. Many hunters

reported hearing very little gobbling in traditional hunting areas. It is likely that the number of turkeys has decreased in Lincoln County and future quotas and management will reflect that and attempt to reverse the trend.

Although the number of turkeys harvested decreased, the Lincoln County Wild Turkey hunt is still providing many people with recreational opportunities. A total of 24% of the tags issued statewide and 14% of the total number of birds reported harvested were from Lincoln County.

RABBIT

WESTERN REGION

Harvest

In 2008, an estimated 5,363 cottontail rabbits were harvested in the Western Region by 1,028 hunters. These hunters spent 5,211 days in the field with an average of 5.2 rabbits/hunter and one rabbit killed/day. The 2008 post-season questionnaire data showed significant increases in the number of hunters and rabbits harvested over the previous year and long-term averages. These increases may have been influenced by increases in chukar hunters this past year.

Table 28. WESTERN REGION RABBIT HARVEST
Post-season Questionnaire Data

	REGIONAL TOTALS:			Percent Change	
	2007	2008	10-Yr Avg.	Prev. yr.	vs. Avg.
No. of Rabbits	1,606	5,363	4,739	234%	13%
No. of Hunters	176	1,028	810	484%	27%
No. of Days	1,103	5,211	3,568	372%	46%
Rabbits / Hunter	9.13	5.22	6.33	-43%	-18%
Rabbits/Hunter Day	1.46	1.02	1.32	-29%	-22%

The Nevada Department of Wildlife is attempting to determine pygmy rabbit harvest levels throughout the state through the upland game harvest questionnaire process. Within northwestern Nevada, information gathered from these questionnaires indicates that 128 pygmy rabbits were harvest by 41 hunters this past year. Given the small number of responses received from hunters and the difficulty in accurately identifying pygmy rabbits from cottontail rabbits by the average person, the expanded data portrayed is suspect.

Population Status and Production Potential

Long-term harvest data infers that rabbit populations reached high levels in 2005 and then began a gradual decline to current levels. Harvest data suggests that the population is at moderate levels when compared to long term numbers. Western Region habitat conditions are thought to be good to excellent from June precipitation receipts. Though no formal surveys are conducted, biologists have reported increased numbers of rabbits throughout the Western Region this summer.

Fall Prediction

Western Region counties with the highest 2008 harvest were Churchill (11% statewide harvest), Washoe (8% statewide harvest), Humboldt (7% statewide harvest) and Lyon (4% statewide harvest). These counties should provide adequate harvest opportunities for the 2009-2010 season.

EASTERN REGION

Harvest

The 2008-09 rabbit season was 141 days long, extending from October 11, 2007 to February 28, 2008 compared to 139 days last year. Bag limits were the same as in the past, with 10 daily and 20 in

possession. The season and bag limits were concurrent with all counties in the state. The regional rabbit harvest summary from the Small Game Post-Season Questionnaire survey is reported below.

Table 29. EASTERN REGION RABBIT HARVEST
Post-season Questionnaire Data

	REGIONAL TOTALS:			Percent Change	
	2007	2008	Avg.	Prev. yr.	vs. Avg.
No. of Rabbits	1,187	4,739	4,718	299%	0%
No. of Hunters	95	502	587	428%	-14%
No. of Days	474	2,616	2,343	452%	12%
Rabbits / Hunter	12.5	9.4	8	-25%	18%
Rabbits /Hunter Day	2.5	1.8	2	-28%	-10%

There was a significant increase in the regional rabbit harvest from the previous year's total (+299%), but harvest was about the same as the long-term average. Rabbit harvest increased in all four Eastern Region counties in 2008. The number of hunters in 2008 was 428% above the previous year but 14% below the long-term-average. Rabbits/hunter (n=9.4) decreased 25% from the previous year but was 18% above the long-term average. Rabbits/hunter day (n=1.8) was below both the long-term average and the previous year.

Population Status

Eastern Region rabbit populations appear to be at average levels. Biologist observations and the number of road-killed rabbits are about average for the region.

Productivity Potential

Weather conditions, especially precipitation levels have provided good conditions for rabbits throughout most of the Region for several years. The 2008-09 winter was about average but late spring precipitation was the highest since 1913 in most of the region. Cover and forage for rabbits in the 2009 summer was excellent. The productivity potential remains good throughout most of the Eastern Region in 2009.

Fall Prediction

The Eastern Region rabbit population is expected to increase throughout most of the Eastern Region. Rabbit hunters should experience good hunting during the 2009-10 season and harvest is expected to be above average.

SOUTHERN REGION

Harvest

The 2008-2009 rabbit season ran from October 11, 2008 to February 28, 2009, for a total of 141 days in length. Bag limits were 10 daily and 20 in possession.

Post-season questionnaire data for the four counties within the Southern Region show that 1,160 hunters harvested a total of 5,776 rabbits during 5,785 days of hunting. The number of rabbits harvested, number of hunters, number of days hunted all increased compared to both short and long-term data, while rabbits per hunter, and rabbits per hunter day both showed decreases in comparison. The

Southern Region accounted for approximately 36% of the statewide rabbit harvest during the 2008-2009 rabbit season.

Table 30. SOUTHERN REGION RABBIT HARVEST
Post-season Questionnaire Data

	REGIONAL TOTALS:			Percent Change	
	2007	2008	99-08 AVG.	PRE. YR.	10 YR. AVG.
No. of Rabbits	1,485	5,776	5,190	289.0%	11.3%
No. of Hunters	223	1,160	840	420.2%	38.0%
No. of Days	2,928	5,785	4,294	97.6%	34.7%
Rabbits / Hunter	6.70	5.00	7.20	-25.4%	-30.6%
Rabbits /Hunter Day	1.10	1.00	1.41	-9.1%	-29.3%

Table 31. SOUTHERN REGION RABBIT HARVEST BY COUNTY
10% Questionnaire Data

	2007-08	2008-09	2008--09 % of harvest	% Difference Short-term
Clark	875	2,750	47.6%	+214%
Esmeralda	0	139	2.4%	100%
Lincoln	210	1,606	27.8%	+665%
Nye	400	1,282	22.2%	+220%
Total	1,485	5,776	100%	±289%

Population Status

The Southern Region rabbit population appears to have bounced back from the low numbers reported in 2007-08. Only one vehicle-rabbit transect was conducted in Lincoln County this year. Of the 21 miles driven only 2 rabbits were observed for a total of 0.1 rabbits per mile. This is up from the 2008 survey which resulted in 0.05 rabbits per mile observed. This was the fifth year that one or both of the transects have been driven. Rabbit populations are generally subject to cyclical changes which are normal to most populations of lagomorphs.

Fall Prediction

According to the DOE-CEMP, precipitation in southeastern Nevada is ≈100% of average. Moderate precipitation during the mid-summer of 2009 should result in rabbits going into fall in good condition. Isolated summer thundershowers should result in areas with moderate to good range conditions that will benefit rabbits. Cottontail rabbit populations appear to be at low levels, however, most areas should be experiencing moderate-to-good production that will likely lead to potential increases in harvest.

FURBEARERS

Overall statewide harvest of furbearing animals during the 2008-09 season was well below the 30-year average. This statement needs some clarification since a majority of the decrease is due to the decline in muskrat harvest over the years. Bobcat harvest statewide for 2008-09 was 2,532, a decrease of 10% from the 2007-08 season, but was still slightly above the 30-year average of 2,425 cats per season. Coyote harvest decreased 27% over the 2007-08 season remaining well under the long term average. Red fox harvest increased to a record 18 in 2007-08, but decreased to 13 in 2008-09. The sale of trapping license increased 11% from 2007-08 with 1,048 licenses being sold in 2008-09. That was the largest sale of license since the 1985-86 season and was the third consecutive year of increased sales. Although license sales were high and above the 30-year average, they still fell below the average number through the 1980's of 1,256 trapping licenses sold. Fur prices were down almost across the board with bobcats averaging $264, a decrease of 46% from 2007-08. Refer to the Appendices, pages A6 - A9, for tables expressing the historical harvest and current year breakdowns.

Trapping harvest and trapper effort data are obtained through an annual harvest questionnaire which is sent to all trapping license buyers following the conclusion of the trapping season. Prior to the season, the Department sends trappers a log book to facilitate their documentation of trapping effort. Because the questionnaire return rate is not 100%, the Department must expand the figures to generate an estimate of harvest and trapper effort. However, the conversion factor within the formulation to expand the data was overestimating harvest. The conversion numbers were over estimating harvest of all species, except bobcats. The formula was adjusted dating back to the 2006-07 season and the numbers are represented in the Appendices in the Table titled "Summary of Statewide Fur Harvest."

The Department also obtains bobcat harvest and trapper effort data through a mandatory check-in process. Trappers are required to retain and remit a portion of the lower jaw preserving one or more canine teeth. The canines are later extracted by biologists who can determine the age classification of the animal, either adult or juvenile, based upon tooth characteristics. Cumulative tooth data reveals recruitment rates of juveniles for a geographic area. Based on the tooth data spanning the last two years, the bobcat season length was adjusted from 120 days to 81 days with a start date of December 1st, 2009 and ending February 19th, 2010. This was in response to a two year low in juvenile production and a short term increased harvest.

Western Region

Harvest

In the Western Region, a total of 3,962 furbearing animals were harvested. Western Region trappers recorded 46% of the state's total fur harvest of just over 8,600 animals. Access was good and fuel prices were lower than last year. Favorable trapping conditions persisted throughout the season with mild weather until late in the winter. Table 1 represents the furbearer and predator harvest in the Western Region for the 2008-2009 trapping season, indicating the seven most sought after species.

Table 1. Western Region Furbearer Harvest.

Species:	2007-08	2008-09	Average 2000-09	Percent Change	
				Prev. Year	10 Year Avg.
Bobcat	1021	883	853	-14%	+3%
Coyote	1,392	1,131	751	-19%	+34%
Gray Fox	355	88	147	-75%	-40%
Kit Fox	342	207	180	-55%	+13%
Beaver	465	390	332	-16%	+15%
Muskrat	3,015	959	1,253	-68%	-23%
Mink	23	52	35	+56%	+33%

Bobcat

Table 2. Western Region Bobcat Harvest.

	2007-08	2008-09	Average 1999-08	Percent Change	
				Prev. Year	10 Year Avg.
Bobcat Harvest	1021	883	847	-14	4
Bobcat Trappers	149	176	104	18	70
Trap Days	186,253	229,735	143,584	23	60
Trap Days / Cat	204	269	171	32	58
Bobcats / Trapper	6.1	5.1	8.2	-16.4	-38.1
Season Length	120	120	120	na	na
Kitten/Adult Female	0.15	0.12	0.59	-20.00	-79.52
Adult Male/ Adult Female	1.37	1.4	1.57	2.19	-11.00

Bobcat harvest for the Western Region decreased slightly from last year (Table 2). The auction price was expected to decline, and although cat prices did drop considerably it was not to the amount anticipated. Production appears to have remained low for another year, likely due to continued effects from two years of drought. However, the ratio of adult males/adult females, at 1.4, is indicative of a healthy bobcat population. These indicators will be monitored closely at the terminus of the upcoming season.

As expected the increase in fur prices in 2007-08 brought more licensed trappers afield in 2008-09 and the number of trappers' statewide remains well above the long term average. With this increase however, came a drop in bobcats harvested per trapper, while trapper effort (number of days to catch one cat) increased.

Pelt prices for most species declined, with prices for bobcat and coyote dropping 46% and 61% respectively. This should have a noticeable effect in the number of trappers for the 2009-10 season.

Population Status and Analysis

Furbearer populations in northwestern Nevada appear healthy and at sufficient numbers to maintain population viability. The extremely dry spring and summer of 2007 had an effect on predator populations by limiting the available prey base. Climatic conditions were somewhat more favorable in 2008 and were much improved upon this past spring (June – 2009) which should equate to better production, enhanced survival and therefore improved recruitment for the Regions furbearers. This number was expected to show a slight increase after the past trapping season, and even though this did not materialize the bobcat population should recover over the next couple of years. Prey base populations, mainly lagomorphs, will cycle back to higher populations, assisted by the spring precipitation in 2009.

Gray fox and Kit fox populations are unpronounced but stable, based on habitat conditions and harvest figures. These two fox species, along with coyotes are broadly distributed and their populations occur in varying densities throughout their habitat.

Aquatic furbearer populations, which include beaver, muskrat, otter and mink, will fluctuate around annual climatic conditions and the resulting local water levels. There were no additional reports of otter in the Western Region this year. Beaver numbers are thought to substantial in the Carson, Truckee and Walker river sheds, but this analysis is subject to increased complaints which are influenced by climatic conditions and the resultant water flows. The number of beaver harvested in the last few years has been increasing but some of this can be attributed to depredation issues.

EASTERN REGION

Harvest

During the 2008-09 season 1,732 furbearers were taken in the Eastern Region. The two prior year's furbearer harvest in the Eastern Region was 2,477 in 2007-08 and 2,456 in 2006-07. This year's harvest represents a 30% decrease over last year's fur harvest in the Eastern Region. The harvest level of a few species was above the ten-year average, while others remained below average. Over the past decade low interest in furbearer harvest has resulted in relatively low ten-year-average figures. It appears that an improved fur market has resulted in renewed interest from trappers. More trappers were afield last year than the previous year. Comparisons of current and historic Eastern Region furbearer and predator harvest for several species are presented in Table 4. For a complete list please see furbearer tables in the appendix.

Table 4. EASTERN REGION FURBEARER HARVEST

Species:	AVERAGE 1998-08	2007-08	2008-09	Percent Change	
				Prev. Year	10 Year Avg.
Beaver	123	193	255	+ 32%	+ 107%
Muskrat	45	8	7	-13%	-84%
Coyote	689	975	622	-36%	-10%
Gray Fox	80	186	103	- 45%	+ 29%
Kit Fox	20	65	31	- 52%	+ 55%
Red Fox	4	11	11	0%	+ 175%
Otter	7	2	5	+ 150%	-29%

During the 2008-09 trapping season fur values varied widely from species to species. Prices were lower for most furbearer species caught during the 2008-09 season. Only the ring-tailed cat market saw an increase in price. Trapper interest remained elevated largely due to bobcat prices which were higher than the ten-year-average. Instability in the world fur trade continues to have the most significant effect upon

the Nevada fur industry. Prices and interest are expected to remain somewhat unpredictable but directly proportional.

Population Status

Prey base populations (rodents and lagomorphs) were lower than usual throughout the Region. Dry weather was believed to be the primary reason for lower prey production last year. Near record precipitation received in June 2009 should help to improve prey base populations.

Red fox are becoming more common throughout the Eastern Region. Trapping records and sightings indicate a general expansion of red fox numbers and distribution.

Gray fox pelt value decreased 55% last season and gray fox harvest subsequently dropped 45% from the 2007-08 season to the 2008-09 season. Gray fox harvest is closely related to bobcat pelt values and trapping interest due to the fact the species overlap in habitat use. Gray fox have a widespread distribution and it is believed that they will respond favorably to what should be increased prey availability due to a wet spring.

Kit fox populations within the Eastern Region are fairly widespread with populations present in most valleys. Kit fox harvest decreased during the past season and harvest information indicates trapping interest is relatively low.

Table 5. EASTERN REGION BOBCAT HARVEST

	Average 1999-08	2007-08	2008-09	Percent Change	
				Prev. Year	10 Year Avg.
Bobcat Harvest	885	855	663	- 23%	- 25%
Bobcat Trappers	113	218	154	- 29%	+ 36%
Trap Days	122,513	133,948	171,653	+ 28%	+ 40%
Trap Days / Cat	160	172	262	+ 52%	+ 64%
Bobcats / Trapper	5.5	3.6	4.3	+ 19%	- 22%
Season Length	118	120	120	0%	+2%

The number of bobcats harvested in the Eastern Region decreased during the 2008-09 season. The number of trap days required to catch a cat increased from the previous year and was above the long-term average. Juvenile production was low for the second straight year following four years of very good production. The number of cats per trapper (4.3) was an increase from last year but below the long-term average. Trappers indicated finding bobcats was more difficult than in past years. Bobcat pelt prices fell in 2008-09. Prices were very high for bobcat during the 2007-08 season resulting in an increase of trappers. That may have carried over into the 2008-09 season, but with falling prices, interest may also start to diminish.

Coyote harvest decreased slightly during the past season. The average price for coyote pelts decreased 61% in 2008-09. Average prices were below $10. In addition to sport harvest, Wildlife Services personnel removed coyotes in response to livestock depredation complaints and the Department's predator management program in the Eastern Region.

The 2008-09 Eastern Region beaver harvest increased compared to the previous year. Regional beaver harvest was also above long-term averages. Beaver populations are believed to be at moderate levels. Some higher populations exist in areas with good habitat. Beaver distribution is expanding in a few areas in response to favorable riparian conditions and increased stream flow. Harvest levels are traditionally related to beaver pelt prices, but last year saw an increase in take while prices dipped by more than 36%. Harvest should remain low as long as pelt prices are down.

Regional muskrat harvest continued to be negligible and was well below the previous highs of the 1970's, 1980's and 1990's. The isolated muskrat populations that exist throughout the Region fluctuate annually depending on climatic conditions and local water levels. The only large, stable population of muskrat within the Eastern Region is at the Ruby Lake National Wildlife Refuge. Ruby Lake is no longer available for harvest since the Refuge is not allowing muskrat trapping.

The distribution of otter and mink is widespread throughout the major drainages of the Eastern Region. Information regarding these species is extremely limited at the present time. Localized population levels are believed to be low to moderate and stable.

Analysis

Bobcat harvest levels were managed for many years through season length adjustment. Historically, season length reductions were recommended when juvenile production was low and trapping interest was high. The juvenile per adult female ratio was 0.17 in 2008-09. Production was 0.34 in 2007-08 and 0.86 in 2006-07, respectively. Production was down for the second year following four years of high production. In response to two consecutive years of low juvenile production, the bobcat season was reduced from 120 days to 81 days for the 2009-2010 season. Production will be closely monitored to see if the downward trend continues. Other biological parameters measured to evaluate trends in the bobcat population indicate stability. The adult male to adult female ratio was 1.3 in 2008-09. The ratio was 1.3 in 2007-08 and 1.3 in 2006-07. The effort necessary to trap a cat was up from last year, and above the long-term average. With numerous new trappers entering the trapping arena, effort is expected to increase. Bobcat populations are healthy and stable in the Eastern Region.

Beaver harvest increased for the third straight year in 2008-09 in the Eastern Region and was above the long-term average. Beaver populations remain at moderate to high levels and continue to present problems to some private landowners. Beaver trapping seasons of maximum length have been maintained in order to maximize beaver harvest. This has been desirable from both a biological and damage management standpoint.

The majority of river otter harvested within the Region were captured incidental to beaver trapping. With low beaver trapping interest, few otter are taken. Nevada does not offer an export seal for otter, which will continue to depress prices and trapping interest. Populations should remain stable along major drainages and reservoirs.

Overall, populations of furbearer species in the Eastern Region remain at healthy levels with stable to increasing population trends for both prey species and furbearers.

SOUTHERN REGION

Harvest

Based on post-season questionnaires and trapper-submitted bobcat harvest reports, 2,919 animals were harvested in the Southern Region during the 2008-09 trapping year. This figure represents a 16% increase compared to 2,449 animals harvested in 2007-08. Notable changes relative to last year involved decreased harvest of coyote and gray fox, while kit fox and beaver harvest increased. Additionally, the overall harvest in Lincoln County included two red foxes. Current harvest figures as well as short- and long-term perspectives are presented in Table 1.

Table 6. SOUTHERN REGION FURBEARER HARVEST

	Average 1998-07	2006-07	2007-08	2008-09	%Difference Short-term	%Difference Long-term
Beaver	10	1	19	39	+52%	+74%
Muskrat	24	0	0	0	NA	NA
Coyote	427	716	878	672	-24%	+36%
Gray Fox	548	999	1,203	981	-18%	+44%
Kit Fox	125	188	202	215	+6%	+42%

Over the long-term beaver harvest has been erratic and muskrat harvest is non-existent. While harvest decreased for most species in 2008-09 relative to 2007-08, they remained similar for the major species compared to 2006-07. Relative to last year, commonly sought species associated with lower average pelt values included bobcat, gray fox, kit fox, coyote and beaver. In contrast, average pelt price increased for ring-tailed cat.

Bobcat

In the Southern Region, 932 bobcats were harvested through trapping and shooting during the 2008-09 season, which closely approximated the harvest (929) last year. However, compared to the long-term average, the bobcat harvest in 2008-09 represented a 21% increase (Table 2).

In the 2008-09 season, slightly fewer trappers harvested more bobcats while expending more time per bobcat compared to trappers in 2007-08. The Southern Region bobcat harvest (trapping and shooting) comprised 36% of the statewide total, which reflected a slight increase relative to the 35% proportion reported last year. Current trapping figures as well as short- and long-term harvest perspectives are presented in Table 2.

Table 7. SOUTHERN REGION BOBCAT HARVEST

	Average 1998-07	2006-07	2007-08	2008-09	%Difference Short-term	%Difference Long-term
Bobcat Harvest	728	1,775	929	**932**	<1%	21%
Bobcat Trappers	110	193	196	**184**	-6%	60%
Trap Days	134,515	273,447	138,672	**181,312**	31%	29%
Trap Days/Cat	196	160	170	**210**	24%	8%
Bobcats/Trapper	6.2	8.9	4.2	**4.7**	12%	-25%
Season Length	114.7	120	121	**120**	<-1%	2%

Population Status

Based on analysis of bobcat tooth data, juvenile production in the Southern Region was among the lowest on record. Bobcat harvest data corresponding to the 2008-09 season indicate a juvenile per adult female ratio of 0.22, which reflected a 57% increase relative to the proportion of juveniles to adult females noted in the previous year. Viewed against the long-term average (1980-05) ratio of juveniles to adult female (0.65), there was a 66% decrease in 2008-09.

The Mojave Desert bobcat population experienced a 79% increase in the ratio of juveniles per adult female from 0.14 in 2007-08 to 0.25. Compared to the long-term (1980-05) average ratio of 0.70 juveniles per adult female, the Mojave Desert population experience a 64% decrease in juveniles per adult female.

Great Basin bobcat populations experienced a 32% decrease in the ratio of juveniles per adult female from 0.22 in 2007-08 to 0.15. Compared to the long-term average (1980-05) ratio of 0.72 juveniles per adult female, Great Basin populations experienced a 79% decrease in juveniles per adult female.

The U.S. Department of Agriculture, Wildlife Services, removes predators in response to livestock depredation complaints, and increasingly, aggressive coyotes in situations of human and pet encounters. The increase in reported incidences of human and pet interactions with coyotes is largely related to continued rapid urbanization and habitat loss in Southern Nevada.

Kit fox, gray fox and coyote populations in the Southern Region are broadly distributed, and occur in varying densities.

Status and trend information corresponding to furbearers associated with wetlands (i.e., beaver and muskrat) is largely unavailable in the Southern Region. Harvest of these species is minimal. The impacts to aquatic furbearers by protracted drought conditions are unknown. Beavers occur in southern Nevada and appear to have small stable populations. Muskrat populations in the Southern Region are limited in size and distribution, and occur in Pahranagat Valley, Lincoln County, and Overton Wildlife Management Area, Clark County.

In 2005 and 2006, lightening caused wildfires in Clark and Lincoln counties impacted wildlife habitats over broad areas. Wildfires in Clark County occurred in the Spring Mountains and Gold Buttes. In Lincoln County, wildfires impacted wildlife habitats in the Delamar Mountains, Meadow Valley Mountains, Mormon Mountains, Clover Mountains, Tule Desert and Pahroc Mountains. Initially, the areas affected by fires offered diminished resources (i.e., food and cover) for many wildlife species. Some furbearer habitats that were profoundly altered by fires may already reflect improvements through native plant establishment and increased prey availability.

Fall Prediction

Bobcat harvest levels in the upcoming 2009-10 season are anticipated to vary across areas despite moderately high demand and market prices. Trappers should encounter reduced bobcat abundance in many areas. It is anticipated the availability of bobcats in the upcoming season will likely be influenced by low recruitment rates in recent successive years. Last year marks the second year of high harvest levels superimposed on the impacts of drought and an overall contracting bobcat population. Bobcat densities in some areas may be exceedingly low due to high harvest pressures and subsequent low immigration rates. Bobcat trapper participation is anticipated to remain largely unchanged relative to the 2008-09 season.

Harvest levels of gray fox and kit fox are expected to remain high relative to bobcat harvest due to incidental catch with the increased number of bobcat trappers in the field.

APPENDIX I

INDEX TO TABLES

APPENDIX II
Small Game Questionnaire Data

SUMMARY OF STATEWIDE UPLAND GAME HARVEST 1965-2008 From Post-season Questionnaire								
Year	Sage Grouse	Hunters	Blue Grouse	Hunters	Chukar Partridge	Hunters	Hungarian Partridge	Hunters
1965	12,948	6,786	559	494	131,048	16,458	ND	ND
1966	6,138	3,883	451	506	28,963	6,028	ND	ND
1967	7,284	4,584	408	564	48,984	8,376	ND	ND
1968	11,765	5,499	975	559	78,064	10,047	ND	ND
1969	23,270	7,605	767	611	124,353	14,536	ND	ND
1970	23,775	9,180	645	570	16,886	18,615	ND	ND
1971	20,805	7,845	660	645	155,895	17,127	ND	ND
1972	17,686	9,099	1,301	882	75,520	14,116	ND	ND
1973	24,930	8,536	2,529	1,237	131,608	13,936	ND	ND
1974	22,924	9,348	3,409	1,696	161,813	17,952	9,625	2,160
1975	16,376	8,331	2,168	1,534	89,408	14,292	2,671	1,185
1976	13,902	5,977	1,752	1,047	56,440	9,626	2,020	870
1977	7,561	4,230	2,257	1,164	52,245	7,853	1,503	606
1978	17,693	6,647	2,663	1,396	108,775	12,296	2,234	796
1979	28,228	8,090	3,123	1,684	151,270	13,960	2,665	1,042
1980	14,648	5,895	1,824	1,112	218,965	15,481	4,895	1,465
1981	15,522	6,731	2,916	1,560	84,498	11,486	8,671	1,469
1982	13,015	6,150	1,792	1,501	55,454	10,738	2,151	1,257
1983	14,495	6,297	939	1,379	79,222	10,979	2,999	1,105
1984	11,555	5,960	1,183	1,043	52,243	9,264	3,299	1,079
1985	ND	ND	1,125	1,063	19,514	6,842	1,271	484
1986	3,967	2,361	1,897	950	43,555	9,325	1,802	774
1987	9,104	3,866	1,694	1,063	52,640	10,200	2,609	983
1988	7,564	3,722	1,856	1,317	101,194	13,065	3,888	1,260
1989	9,445	4,320	2,303	1,225	82,464	14,545	1,655	847
1990	13,697	5,331	2,357	1,291	75,834	10,941	3,829	1,247
1991	13,371	5,564	1,161	1,285	46,700	11,364	1,526	858
1992	12,871	5,126	3,179	1,422	46,780	9,206	750	489
1993	9,782	4,352	1,490	1,141	24,232	7,519	368	377
1994	9,004	4,238	847	796	28,563	6,871	938	275
1995	7,529	4,042	1,606	1,127	62,009	11,613	1,985	658
1996	8,111	3,906	1,969	919	61,972	11,041	1,455	760
1997	5,125	3,471	1,105	1,113	36,950	9,178	1,055	480
1998	5,723	3,277	1,550	857	62,289	10,742	2,830	750
1999	6,070	3,097	1,702	997	105,655	15,586	8,759	2,069
2000	4,728	2,520	925	844	61,310	11,721	4,801	992
2001	2,691	1,708	1,168	666	54,350	8,905	2,223	697
2002	3,940	2,412	1,064	801	72,545	10,722	1,504	789
2003	4,557	2,177	1,305	688	115,738	12,491	2,266	892
2004	5,244	2,194	833	523	76,081	9,134	1,482	523
2005	3,175	1,526	2,046	1,268	120,135	14,727	2,767	1,613
2006	3,701	1,981	2,822	1,987	104,408	15,654	4,334	1,866
2007	4,897	3,197	1,699	1,643	61,153	14,448	1,775	1,114
2008	**5,775**	**3,271**	**1,936**	**1,670**	**61,307**	**11,735**	**1,334**	**1,023**

SUMMARY OF STATEWIDE UPLAND GAME HARVEST 1965-2008 From Post-season Questionnaire (page 2)								
Year	**Quail**	**Hunters**	**Pheasant**	**Hunters**	**Rabbit**	**Hunters**	**Dove**	**Hunters**
1965	58,110	8,944	20,787	10,595	29,796	6,656	120,827	9,516
1966	70,906	8,008	22,319	10,714	29,502	6,039	96,074	7,073
1967	73,548	8,040	2,676	2,016	27,048	5,748	155,556	10,476
1968	134,002	12,275	2,847	3,159	55,465	8,924	110,253	9,658
1969	107,287	11,396	2,938	2,377	56,660	9,662	170,419	11,125
1970	105,646	13,533	4,125	3,555	64,181	12,282	131,290	12,084
1971	67,027	9,040	4,357	3,191	49,004	9,387	115,761	10,608
1972	37,111	7,636	5,274	3,441	29,682	7,376	119,461	10,149
1973	41,696	6,532	5,012	2,887	28,059	6,476	129,945	10,552
1974	65,674	8,431	7,188	3,842	45,926	9,124	140,639	11,487
1975	104,954	8,790	8,046	4,117	58,573	9,122	147,189	12,234
1976	68,629	8,694	5,910	3,469	53,133	8,800	146,586	9,571
1977	71,720	7,825	4,969	2,987	71,898	9,592	125,504	9,802
1978	104,939	9,050	5,322	2,946	99,817	10,491	113,048	9,390
1979	171,972	11,338	6,072	3,139	136,502	11,550	125,462	9,123
1980	138,863	11,128	6,740	3,305	105,671	9,904	143,253	9,843
1981	70,882	9,451	5,424	4,031	62,831	8,871	120,424	8,858
1982	54,397	9,620	3,119	3,325	52,168	9,386	112,810	9,948
1983	88,434	9,575	2,461	2,412	45,344	7,375	117,294	8,248
1984	62,981	8,241	3,110	2,839	40,406	6,961	85,501	8,173
1985	59,756	7,511	2,314	1,928	27,266	5,277	80,974	6,435
1986	49,423	7,384	2,535	1,731	25,709	5,481	69,998	6,123
1987	51,404	6,810	1,703	1,223	33,470	5,745	66,348	5,747
1988	60,398	6,484	2,758	1,359	45,215	6,545	55,454	5,371
1989	30,632	5,125	1,246	1,178	33,341	5,533	52,132	5,459
1990	21,471	4,336	1,058	1,054	38,449	5,298	59,863	5,670
1991	32,791	5,195	1,177	1,373	23,565	5,059	58,503	6,255
1992	34,265	4,966	1,041	1,129	39,893	4,994	49,710	4,804
1993	63,723	5,874	681	952	25,817	4,504	54,929	5,242
1994	52,044	5,798	1,973	1,341	20,035	3,900	68,270	6,112
1995	74,223	7,303	1,117	735	17,962	4,030	61,418	5,790
1996	39,989	5,054	557	556	16,694	3,284	54,291	4,923
1997	35,194	5,569	839	935	11,783	3,446	57,244	5,623
1998	62,619	6,814	1,315	1,047	18,404	3,346	53,138	4,895
1999	54,996	6,909	990	1,058	15,183	3,291	41,068	4,270
2000	34,757	5,782	699	808	12,114	2,659	45,955	4,193
2001	35,718	4,006	1,095	574	12,672	2,247	31,749	3,329
2002	24,420	5,006	1,015	686	7,554	2,085	62,977	5,355
2003	49,422	5,939	1,523	639	14,638	2,734	37,750	4,074
2004	38,353	3,725	783	387	17,604	2,196	34,650	3,434
2005	35,662	3,352	338	227	18,269	1,554	49,795	4,110
2006	38,557	4,022	388	218	38,727	1932	53,851	4,590
2007	44,185	8,403	344	360	4,278	494		
2008	**53,150**	**8,262**	**463**	**588**	**15,878**	**2,691**		

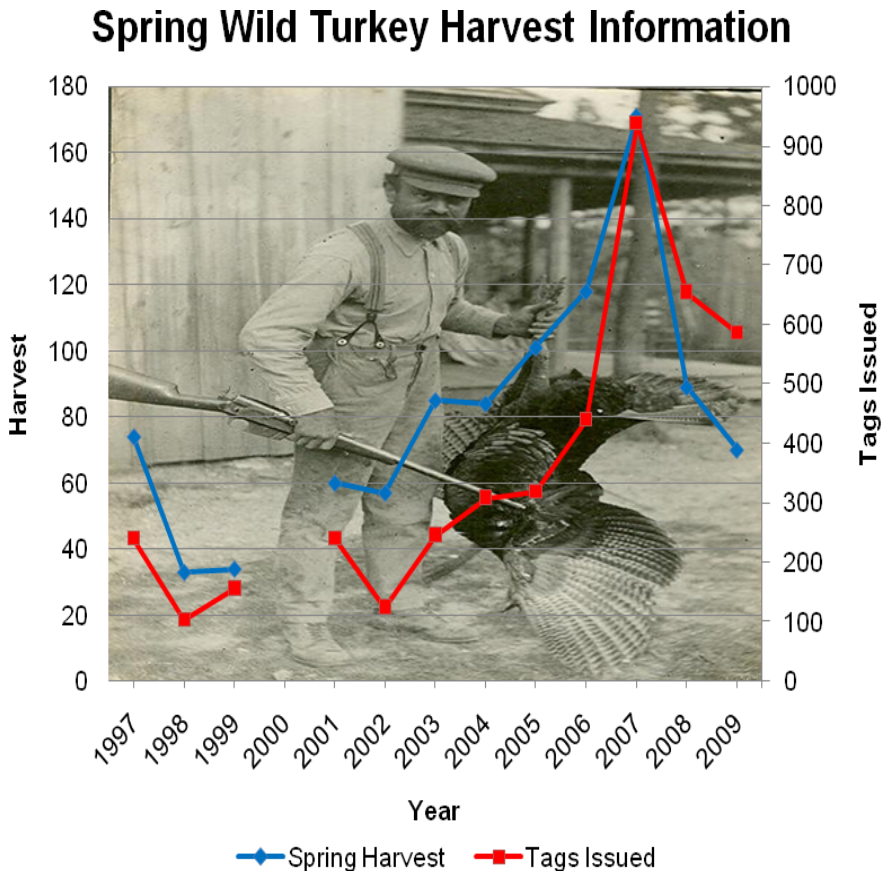
TURKEY RETURN CARD DATA — *STATEWIDE SUMMARY* — SPRING 2009

Hunt Area	Tag Quota	# Tags Issued	# Qstr. Rtnd	% Rtn	Effort					Harvest			Chose Not to Harvest	Weapon Type	
					# Succ.	%Succ.	Hunter Days	Scout	DNH	Tom	Jake	Lost		Archery	Shotgun
Elko Co. - Unit 102	27	27	25	93%	12	55%	133	59	3	7	5	1	4	1	11
Elko & White Pine - Unit 103	16	15	14	93%	2	18%	92	24	3	1	1	0	0	0	2
Lander Co. - Units 151 & 152	3	3	3	100%	3	100%	7	7	0	3	0	1	0	0	3
Lincoln County	99	98	87	89%	6	8%	285	192	8	4	2	3	10	1	5
Lincoln County (Youth)	Open	42	41	98%	4	11%	94	41	4	3	1	0	4	0	4
Pershing County	10	10	10	100%	5	56%	38	22	1	5	0	0	2	1	4
Mason Valley WMA	64	64	60	94%	7	13%	220	107	5	5	2	3	8	0	7
Moapa Valley	18	18	15	83%	9	60%	42	45	0	5	4	1	2	0	9
White Pine Co. - Unit 114	3	3	2	67%	1	50%	10	2	0	1	0	0	0	0	1
White Pine Co. - Unit 115	9	9	7	78%	6	86%	35	7	0	4	2	0	0	0	6
Lyon County except MVWMA	Open	181	51	28%	4	11%	164	67	16	1	3	0	0	1	3
Churchill County	Open	95	31	33%	6	26%	147	117	8	6	0	0	3	2	4
Paradise Valley	Open	21	10	48%	5	56%	31	12	1	5	0	1	1	0	5
TOTALS:	**249**	**586**	**356**	**61%**	**70**	**23%**	**1,298**	**702**	**49**	**50**	**20**	**10**	**34**	**6**	**64**

TURKEY RETURN CARD DATA — *STATEWIDE SUMMARY* — FALL 2008

Hunt Area	# Tags Issued	# Qstr. Rtnd	% Rtn	Effort					Harvest					Comments (#)	
				# Succ.	%Succ.	Hunt	Scout	DNH	Tom	Jake	Hen	Lost	Opportunity	+	-
Mason Valley WMA	33	30	91%	7	30%	46	14	7	0	2	5	1	2		
Moapa Valley	22	21	95%	11	55%	38	24	1	1	0	10	0	2		
Churchill Co.				**N**	**O**		**S**	**E**	**A**	**S**	**O**	**N**			
Lyon Co.	26	26	100%	11	50%	45	23	4	2	0	9	3	1		
TOTALS:	**81**	**77**	**95%**	**29**	**45%**	**129**	**61**	**12**	**3**	**2**	**24**	**4**	**5**		

SUMMARY OF STATEWIDE TURKEY HARVEST 1997-2008						
Year	Harvest		Tags Issued		Hunter Effort (days)	
	Spring	Fall	Spring	Fall	Spring	Fall
1997	74	28	239	79	No Data	No Data
1998	33	29	103	75	No Data	No Data
1999	34	No Data	155	No Data	No Data	No Data
2000	No Data	13	No Data	51	No Data	No Data
2001	60	17	239	57	No Data	No Data
2002	57	4	124	65	No Data	No Data
2003	85	45	245	130	706	264
2004	84	26	308	116	835	241
2005	101	44	318	104	1043	124
2006	118	51	440	134	1456	289
2007	171	29	938	92	2371	194
2008	89	29	654	81	1269	129
2009	70		586		1298	
TOTALS:	**976**	**315**	**4349**	**984**	**8978**	**1241**
AVERAGE:	**81**	**29**	**362**	**89**	**1283**	**207**



Summary of Statewide Fur Harvest from Post-Season Questionnaire 1979- 2009

Year	Trappers	R-T Cat	Weasel	Beaver	Skunk	Otter	Muskrat	Mink	Raccoon	Kit Fox	Gray Fox	Red Fox	Badger	Bobcat	Coyote	Total Value
1979-80	2,209	80	25	2,846	396	76	18,946	185	129	2,306	2,119		1,033	5,513	16,229	$1,883,894
1980-81	1,567	81	4	2,123	296	46	30,165	245	133	1,103	1,294		589	4,257	10,304	$1,640,904
1981-82	1,524	87	12	1,148	209	9	24,227	167	115	865	1,112		536	3,392	14,129	$1,545,102
1982-83	1,509	35	0	834	220	7	19,920	143	520	832	937		569	3,786	13,882	$1,499,808
1983-84	1,184	49	3	897	209	3	32,128	127	80	914	1,013		362	3,027	10,055	$1,071,431
1984-85	1,250	42	10	495	115	5	10,849	24	78	1,205	619		496	3,077	10,306	$1,038,602
1985-86	1,051	58	14	1,219	147	0	8,211	100	163	1,373	1,040		353	2,657	6,119	$877,423
1986-87	875	28	0	1,722	129	49	14,864	380	106	1,345	767		397	1,305	7,745	$830,114
1987-88	875	86	2	675	80	19	12,641	126	108	1,004	630		366	1,458	6,373	$641,495
1988-89	512	25	2	367	30	4	2,135	113	52	845	439		141	2,189	2,352	$546,993
1989-90	592	29	2	1,020	103	3	149	47	53	397	811		97	2,489	1,717	$336,394
1990-91	462	9	1	421	49	0	410	24	14	87	212		55	939	1,252	$122,767
1991-92	334	17	1	1,089	118	9	680	80	52	514	443		151	2,476	3,718	$447,162
1992-93	488	14	0	254	53	1	100	20	17	488	223		112	1,175	3,746	$176,354
1993-94	510	16	0	403	67	8	273	72	56	537	612		233	1,820	4,477	$348,844
1994-95	524	25	1	625	45	7	876	116	23	247	354		182	1,270	3,298	$165,352
1995-96	373	9	0	398	13	5	1,372	41	14	172	376		53	806	1,791	$157,861
1996-97	420	15	2	564	96	8	6,717	75	48	195	498		96	1,509	3,209	$218,439
1997-98	482	10	1	780	35	13	9,604	80	62	298	565		58	1,705	2,227	$196,671
1998-99	320	7	0	421	21	1	3,415	17	11	154	318		94	899	1,003	$183,203
1999-00	382	9	2	544	79	6	3,078	71	46	193	434		91	1,637	1,202	$172,585
2000-01	408	12	1	301	32	5	592	22	62	138	448		49	949	1,185	$145,022
2001-02	380	8	0	553	71	8	425	33	52	135	497	1	40	1,145	1,071	$229,284
2002-03	564	16	0	641	73	13	75	40	105	187	554	2	73	2,198	1,340	$414,808
2003-04	580	19	0	666	184	5	546	29	110	414	967	9	256	2,744	2,726	$781,849
2004-05	615	7	2	441	74	19	468	45	89	399	536	9	170	2,666	2,003	$644,688
2005-06	585	17	1	409	91	7	1,280	33	72	442	720	3	152	3,316	1,776	$1,147,034
2006-07	857	11	9	494	295	1	4,546	108	116	516	1,608	12	555	4,911	2,956	$1,248,873
2007-08	937	20	3	677	157	2	3,023	29	180	609	1,771	18	269	2,811	3,245	$1,543,803
2008-09	**1,048**	**11**	**1**	**684**	**108**	**5**	**966**	**62**	**172**	**453**	**1,172**	**13**	**92**	**2,532**	**2,425**	**$726,901**
Average	**781**	**28**	**3**	**790**	**120**	**11**	**7,089**	**88**	**95**	**612**	**770**	**8**	**257**	**2,355**	**4,795**	**699,455**

NEVADA FUR HARVEST BY COUNTY 2008-2009

Region	County	Beaver	Muskrat	Coyote	Bobcat	G. Fox	Kit Fox	Mink	Otter	Badger	Weasel	Raccoon	Stripe Skunk	Spot Skunk	Ring-Tail Cat	Red Fox
Western	Carson	4	0	39	6	0	0	0	0	0	0	0	4	0	0	0
	Churchill	65	614	102	103	11	65	0	0	1	0	23	6	0	0	0
	Douglas	90	96	64	66	0	0	24	0	0	0	17	12	0	0	0
	Humboldt	33	1	352	169	6	0	0	0	14	0	2	0	0	0	0
	Lyon	133	18	62	63	43	11	20	0	1	0	40	27	0	0	0
	Mineral	0	0	15	41	12	23	0	0	0	0	0	0	0	0	0
	Pershing	6	5	287	132	10	63	0	0	4	0	1	7	0	0	0
	Storey	0	169	2	12	1	21	2	0	0	0	15	0	0	0	0
	Washoe	59	56	208	325	5	24	6	0	6	0	26	7	5	0	0
	TOTALS:	**390**	**959**	**1,131**	**917**	**88**	**207**	**52**	**0**	**26**	**0**	**124**	**63**	**5**	**0**	**0**
Eastern	Elko	249	7	406	310	19	4	10	5	42	1	21	7	6	0	10
	Eureka	0	0	88	53	8	11	0	0	0	0	1	0	0	0	0
	Lander	6	0	23	52	17	6	0	0	0	0	0	1	0	0	0
	White Pine	0	0	105	185	59	10	0	0	7	0	0	2	0	0	1
	TOTALS:	**255**	**7**	**622**	**600**	**103**	**31**	**10**	**5**	**49**	**1**	**22**	**10**	**6**	**0**	**11**
Southern	Clark	0	0	211	183	426	77	0	0		0	19	23	0	4	1
	Esmeralda	0	0	11	69	6	6	0	0	0	0	0	0	0	0	0
	Lincoln	0	0	214	404	331	61	0	0	15	0	6	0	0	6	1
	Nye	39	0	236	359	218	71	0	0	2	0	1	0	1	1	0
	TOTALS:	**39**	**0**	**672**	**1,015**	**981**	**215**	**0**	**0**	**17**	**0**	**26**	**23**	**1**	**11**	**2**
Statewide Totals:		**684**	**966**	**2,425**	**2,532**	**1,172**	**453**	**62**	**5**	**92**	**1**	**172**	**96**	**12**	**11**	**13**

NEVADA TRAPPERS BY SPECIES AND COUNTY 2008-2009

Region	County	Beaver	Muskrat	Coyote	Bobcat	G. Fox	Kit Fox	Mink	Otter	Badger	Weasel	Raccoon	Striped Skunk	Spotted Skunk	Ring-Tail Cat	Red Fox
Western	Carson	2	0	1	3	1	0	1	0	0	0	2	0	0	0	0
	Churchill	4	0	8	17	4	2	0	0	1	0	4	0	0	0	0
	Douglas	5	6	4	12	2	0	5	1	1	0	1	2	0	0	0
	Humboldt	1	1	11	20	0	2	0	1	0	0	0	1	0	0	0
	Lyon	7	0	5	16	1	0	1	1	2	0	7	1	0	0	0
	Mineral	0	0	5	11	5	1	0	0	0	0	0	0	0	0	0
	Pershing	6	0	14	16	2	11	0	0	1	0	0	2	0	0	0
	Storey	0	0	2	3	1	0	0	0	0	0	1	0	0	0	0
	Washoe	5	2	27	30	1	2	2	0	1	0	2	1	1	0	0
	TOTALS:	**30**	**9**	**77**	**128**	**17**	**18**	**9**	**3**	**6**	**0**	**17**	**7**	**1**	**0**	**0**
Eastern	Elko	8	1	36	50	1	0	2	1	6	1	10	1	0	0	0
	Eureka	1	0	7	17	5	5	0	0	1	0	0	0	1	0	1
	Lander	0	0	2	13	5	0	0	0	2	0	0	1	0	0	0
	White Pine	0	0	10	35	7	0	0	0	5	0	0	0	0	0	0
	TOTALS:	**9**	**1**	**55**	**115**	**18**	**5**	**2**	**1**	**14**	**1**	**10**	**2**	**1**	**0**	**1**
Southern	Clark	2	0	38	32	27	10	0	0	11	0	4	0	0	4	0
	Esmeralda	0	0	2	12	1	0	0	0	0	0	0	0	0	0	0
	Lincoln	1	1	15	46	46	7	0	0	4	0	5	1	0	5	2
	Nye	1	0	20	50	13	5	0	0	4	0	0	0	0	0	2
	TOTALS:	**4**	**1**	**75**	**140**	**87**	**22**	**0**	**0**	**19**	**0**	**9**	**1**	**0**	**9**	**4**
Statewide Totals:		**43**	**11**	**207**	**383**	**122**	**45**	**11**	**4**	**39**	**1**	**36**	**10**	**2**	**9**	**5**

NEVADA FUR HARVEST VALUE 2008-2009

Based on Average Price Fallon Fur Sale x Harvest

Species	Total Value of Catch	AVERAGE PRICE		% Increase +
		2008-09	2007-08	% Decrease -
Beaver	$6,580.08	$9.62	$14.98	-36%
Otter	$0.00	$0.00	$55.00	NA
Muskrat	$2,424.66	$2.51	$2.52	0%
Mink	$252.34	$4.07	$7.33	-44%
Raccoon	$632.96	$3.68	$13.11	-72%
Bobcat	$668,093.52	$263.86	$485.43	-46%
Coyote	$23,328.50	$9.62	$24.63	-61%
Badger	$1,046.96	$11.38	$17.94	-37%
Striped Skunk	$670.68	$6.21	$6.39	-3%
Ring-tailed Cat	$119.79	$10.89	$6.00	82%
Kit Fox	$4,027.17	$8.89	$11.00	-19%
Gray Fox	$19,724.76	$16.83	$37.08	-55%
Red Fox	$0.00	$0.00	$32.00	NA
Total	**$726,901.42**			

SUMMARY OF STATEWIDE WATERFOWL HARVEST – 1964-2008

From Post-Season Questionnaire

Year	Duck Stamp Sales		Est'd. NV Htrs	Ducks	Geese			Tundra Swans*	Total Waterfowl
	Federal	Nevada			Dark	White	Total		
1964	9,639	--	9,603	70,884	5,929	1,980	7,909	--	**78,793**
1965	10,673	--	11,544	90,036	3,708	792	4,500	--	**94,536**
1966	11,928	--	14,928	109,428	6,060	4,524	10,584	--	**120,012**
1967	12,713	--	13,860	147,400	7,205	2,541	9,746	--	**157,146**
1968	12,491	--	13,635	110,136	2,273	1,277	3,550	--	**113,686**
1969	13,220	--	13,520	137,524	5,453	1,021	6,474	87	**144,085**
1970	14,361	--	12,913	147,211	6,649	3,488	10,137	208	**157,556**
1971	15,029	--	16,906	178,107	7,357	4,655	12,012	102	**190,221**
1972	12,701	--	14,605	149,565	8,066	1,756	9,822	124	**159,511**
1973	13,732	--	14,435	97,251	4,047	2,580	6,627	109	**103,987**
1974	11,714	--	14,902	139,080	5,480	1,498	6,978	190	**146,248**
1975	13,856	--	17,661	162,863	3,629	1,430	5,059	188	**168,110**
1976	13,146	--	15,154	139,598	6,379	3,194	9,573	206	**149,377**
1977	11,145	--	11,190	79,491	4,142	1,606	5,748	84	**85,323**
1978	12,154	--	12,452	104,840	5,998	942	6,940	90	**111,870**
1979	11,370	18,799	12,600	119,150	5,238	561	5,799	214	**125,163**
1980	11,705	18,300	12,487	101,765	4,515	388	4,903	103	**106,771**
1981	10,496	15,489	17,168	90,396	8,897	1,961	10,858	301	**101,555**
1982	11,969	17,250	18,921	97,582	6,558	759	7,317	161	**105,060**
1983	12,009	16,607	16,765	125,619	8,901	1,407	10,308	169	**136,096**
1984	12,950	16,451	17,799	108,570	11,658	1,386	13,044	199	**121,813**
1985	12,421	17,290	8,647	75,890	9,870	1,207	11,077	229	**87,196**
1986	11,749	20,000	8,357	67,615	6,969	249	7,218	196	**75,029**
1987	9,907	25,000	6,840	76,949	8,784	900	9,684	94	**86,727**
1988	7,564	28,700	4,432	37,338	8,690	950	9,640	78	**47,056**
1989	6,703	15,600	4,950	35,722	6,232	410	6,642	81	**42,445**
1990	6,647	9,050	4,446	35,693	10,655	529	11,184	67	**46,944**
1991	6,034	9,777	4,803	30,225	5,574	346	5,920	62	**36,207**
1992	6,303	7,277	3,453	19,589	10,140	281	10,421	29	**30,039**
1993	7,245	9,162	4,335	32,191	6,593	463	7,056	46	**39,293**
1994	7,704	8,469	5,112	46,340	8,573	595	9,168	88	**55,596**
1995	8,347	9,132	6,964	72,259	5,206	863	6,069	72	**78,400**
1996	7,702	9,127	7,228	83,908	9,028	892	9,920	119	**93,947**
1997	7,874	11,451	8,752	116,596	6,051	331	6,382	131	**123,109**
1998	8,331	11,420	8,574	122,092	8,635	819	9,454	185	**131,731**
1999	8,880	10,898	6,918	80,814	7,575	667	8,242	217	**89,273**
2000	8,000	10,085	6,159	56,579	4,537	151	4,688	78	**61,345**
2001	7,293	9,016	3,692	31,203	2,646	281	2,927	58	**34,188**
2002	6,914	8,460	4,028	33,113	4,980	133	5,113	40	**38,266**
2003	6,896	8,018	4,298	44,022	4,041	219	4,260	71	**48,353**
2004	5,991	7,501	3,572	38,305	1,479	1,135	2,614	78	**40,997**
2005	6,570	7,956	3,960	56,428	4,041	219	4,260	71	**60,759**
2006	6,704	8,581	4,525	69,893	6,719	848	7,567	147	**77,607**
2007	6,337	7,863	4,038	54,459	5,339	414	5,753	200	**60,412**
2008	*Unavail.*	**5,605**	**3,212**	**42,915**	**4,384**	**324**	**4,708**	**124**	**47,747**

Nevada duck stamp sales from 1989 on represent stamps sold only during year of issue rather than cumulative sales.

NEVADA MID-WINTER WATERFOWL INVENTORY DATA										
2004 - 2009							Current year compared to:			
SPECIES	2004	2005	2006	2007	2008	2009	5 Yr Avg.	45 Yr Avg.	HIGH Count	LOW Count
Mallard	13,851	17,654	23,061	25,979	28,950	17,326	23,911	13,929	28,950	4,321
Gadwall	4,465	2,850	9,132	4,551	3,055	2,739	4,897	2,942	12,832	550
Widgeon	1,750	2,135	3,624	2,414	820	1,941	2,248	1,296	4,154	205
G.W. Teal	11,765	16,539	17,524	6,222	3,973	4,601	11,065	6,572	26,150	540
B.W. Teal	0	0	0	0	0	0	0	9	75	0
Cinn. Teal	77	6	10	0	0	2	4	43	660	0
Shoveler	3,830	2,278	4,264	5,321	5,654	4,679	4,379	3,356	24,700	224
Pintail	4,985	4,890	9,982	11,420	11,360	3,221	9,413	6,407	24,765	446
Wood Duck	0	12	30	10	2	46	14	25	150	0
Redhead	2,273	4,524	6,485	13,330	4,171	2,669	7,128	2,305	13,330	100
Canvasback	2,450	4,581	5,795	7,087	6,484	3,167	5,987	2,727	10,475	233
Scaup	240	340	699	989	262	116	573	235	1,850	10
Ringneck	1,826	2,377	2,398	3,316	2,155	803	2,562	797	3,316	13
Goldeneye	978	715	198	661	528	358	526	618	2,093	40
Bufflehead	893	1,652	2,243	2,300	1,727	1,480	1,981	872	2,571	153
Ruddy	5,850	5,619	4,126	10,970	5,659	10,432	6,594	4,599	22,532	268
Merganser	1,425	831	2,317	868	2,149	1,576	1,541	1,751	8,806	241
Miscellaneous	19	79	101	127	82	5	97	44	127	3
Total Ducks	**56,677**	**67,082**	**91,989**	**95,565**	**77,031**	**55,161**	**82,917**	**48,528**	128,540	15,739
% Change v. Prev. Yr.	**-19%**	**18%**	**37%**	**4%**	**-19%**	**-28%**	**-33%**	**14%**		
	2009 Observations % change versus Averages:									
Dark Geese	19,558	17,312	20,842	17,366	24,827	21,590	20,087	15,505	35,806	3,457
Light Geese	326	268	1,219	1,075	1,578	39	1,035	824	7,678	10
Total Geese	**19,884**	**17,580**	**22,061**	**18,441**	**26,405**	**21,629**	**21,122**	**16,329**	**43,484**	**3,467**
% Change v. Prev. Yr.	**5%**	**-12%**	**25%**	**-16%**	**43%**	**-18%**	**2%**	**32%**		
	2009 Observations % change versus Averages:									
Trumpeter Swan	30	31	28	28	28	38	29	28	60	10
Tundra Swan	1,614	456	2,750	3,803	2,266	1,191	2,319	2,285	10,742	31
Total Waterfowl	**78,205**	**85,149**	**116,828**	**117,869**	**105,730**	**78,019**	**106,386**	**67,170**	**149,746**	**22,097**
% Change v. Prev. Yr.	**-13%**	**9%**	**37%**	**1%**	**-10%**	**-26%**	**-27%**	**16%**		
	2009 Observations % change versus Averages:									
Coot	**17,130**	**34,656**	**33,261**	**39,330**	**17,827**	**43,380**	**31,269**	**18,395**	**65,280**	**3,926**

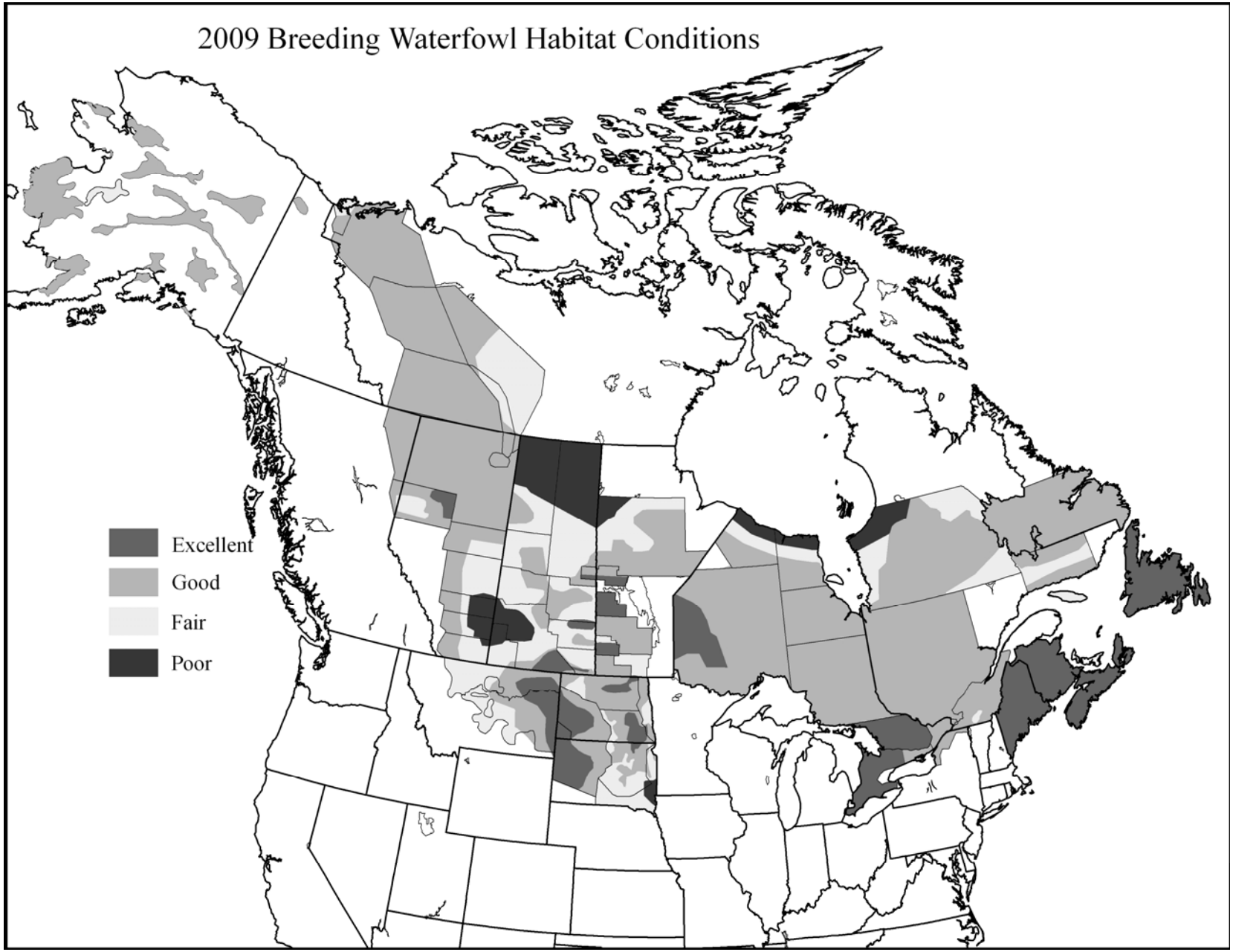
Composition of Nevada Duck Harvest

From U.S. Fish & Wildlife Service Parts Collection Survey and Harvest Information Program (from 1990 on)

AVERAGES:

	Mallard		Gadwall		Wigeon		GW Teal		Cinn. Teal		Shoveler		Pintail		Wood Duck	
	Est. Kill	% of T	Est. Kill	% of T	Est. Kill	% of T	Est. Kill	% of T	Est. Kill	% of T	Est. Kill	% of T	Est. Kill	% of T	Est. Kill	% of T
1960'S	24,007	48.9%	6,198	12.6%	4,801	9.8%	12,248	25.0%	2,119	4.3%	7,111	14.5%	11,028	22.5%	225	0.5%
1970's	26,719	39.5%	7,243	10.7%	7,809	11.6%	17,156	25.4%	3,724	5.5%	5,784	8.6%	17,973	26.6%	309	0.5%
1980's	22,031	51.1%	7,383	17.1%	4,007	9.3%	10,777	25.0%	1,575	3.7%	5,565	12.9%	7,729	17.9%	174	0.4%
1990's	21,107	47.6%	7,068	15.9%	3,351	7.6%	11,464	25.9%	1,322	3.0%	3,151	7.1%	4,520	10.2%	484	1.1%
00-07	15,832	34.2%	6,468	14.0%	3,166	6.8%	9,332	20.1%	811	1.7%	4,559	9.8%	2,477	5.3%	307	0.7%
2007	12,936	29.5%	5,169	11.8%	3,278	7.5%	8,742	20.0%	532	1.2%	5,818	13.3%	2,983	6.8%	236	0.5%
2008	**10,748**	**35.8%**	**4,690**	**15.6%**	**2,931**	**9.8%**	**4,104**	**13.7%**	**195**	**0.7%**	**3,127**	**10.4%**	**1,319**	**4.4%**	**195**	**0.7%**

	Redhead		Canvasback		Greater Scaup		Lesser Scaup		Ring-necked		Com. Goldeneye		Bufflehead		Ruddy		TOTALS:
	Est. Kill	% of T	Est. Kill	% of T	Est. Kill	% of T	Est. Kill	% of T	Est. Kill	% of T	Est. Kill	% of T	Est. Kill	% of T	Est. Kill	% of T	
1960'S	2,803	5.7%	1,263	2.6%	103	0.2%	339	0.7%	342	0.7%	134	0.3%	342	0.7%	1,036	2.1%	**49,066**
1970's	3,193	4.7%	2,178	3.2%	43	0.1%	523	0.8%	623	0.9%	442	0.7%	547	0.8%	1,282	1.9%	**67,575**
1980's	2,482	5.8%	1,650	3.8%	25	0.1%	189	0.4%	774	1.8%	268	0.6%	491	1.1%	1,207	2.8%	**43,124**
1990's	2,478	5.6%	713	1.6%	12	0.0%	197	0.4%	1,258	2.8%	304	0.7%	379	0.9%	1,182	2.7%	**44,317**
00-07	801	1.7%	399	0.9%	23	0.0%	180	0.4%	754	1.6%	296	0.6%	429	0.9%	338	0.7%	**46,325**
2007	354	0.8%	1,447	3.3%	0	0.0%	236	0.5%	768	1.8%	354	0.8%	0	0.0%	325	0.7%	**43,800**
2008	**440**	**1.5%**	**0**	**0.0%**	**0**	**0.0%**	**195**	**0.7%**	**831**	**2.8%**	**440**	**1.5%**	**0**	**0.0%**	**98**	**0.3%**	**29,990**


2009 Breeding Waterfowl Habitat Conditions
Excellent
Good
Fair
Poor

Duck Daily Bag Limit Restrictions History – Page 1.

	General	Mallard		Pintail		Canvas-back	Red-head	Scaup	Wood Duck	Ruddy Duck	Merg.	Notes	Bonus
		Drake	Hen	Drake	Hen								
1953	7	--		11[(a)]		--	--	--	**0**	--	--		4
1954	7	--		10[(a)]		--	--	--	**0**	--	--		3
1955	6	--		9[(a)]		--	--	--	1	--	Separate merganser season - 5 daily, but only one hooded merganser.		3
1956	6	--		9[(a)]		--	--	--	1	--			3
1957	5	--		8[(a)]		--	--	--	1	--			3
1958	5	--		9[(a)]		--	--	--	1	--			4
1959	5	--		5		2	2	--	1	1		**(1)**	
1960	4	--		4		**0**	**0**	--	1	--			
1961	5	--		5		**0**	**0**	--	1	--			
1962	4	--		4		**0**	**0**	--	1	--			
1963	4	--		4		**0**	**0**	--	2	--			
1964	5	--		5		2	2	--	2	--		**(2)**	
1965	4	3		3		2	--	--	2	--		**(7)**	
1966	6	--		--		--	--	--	2	--			
1967	6	--		--		2	--	--	--	--			
1968	5	3		--		2	--	--	--	--			
1969	5	--		--		2	--	--	--	--			
1970	6	--		--		6	--	--	--	--			
1971	6	--		--		2	--	--	--	--			
1972	6	--		--		**0**	--	--	--	--			
1973	5	--		7[(p)]		*1*	2	--	--	--	--	**(CH)**	2
1974	5	--		7[(p)]		*1*	2	--	--	--	--	**(CH)**	2
1975	7	--		--		2	2	--	--	--	--	**(2)**	
1976	7	--		--		2	2	--	--	--	--	**(2)**	
1977	7	--		--		2	2	--	--	--	--	**(2)**	
1978	7	--		--		2	2	--	--	--	--	**(2)**	
1979	7	--		--		2	2	--	--	--	--	**(2)**	
1980	7	--		--		2	2	--	--	--	--	**(2)**	
1981	7	--		--		2	2	--	--	--	--	**(2)**	
1982	7	--		--		2	2	--	--	--	--	**(2)**	
1983	7	--		--		2	2	--	--	--	--	**(2)**	
1984	7	--		4		2	2	--	--	--	--	**(2)**	
1985	5	3	1	3	1	1	2	--	--	--	--	**(2), (6)**	
1986	5	4	1	4	1	1	2	--	--	--	--	**(2)**	
1987	5	4	1	4	1	1	2	--	--	--	--	**(2)**	
1988	4	3	1	1		**0**	2	--	--	--	--		
1989	4	3	1	1		1	2	--	--	--	--	**(3)**	
1990	4	3	1	1		1	2	--	--	--	--	**(3)**	
1991	4	3	1	1		2	2	--	--	--	--	**(2)**	
1992	4	3	1	1		2	2	--	--	--	--	**(2)**	
1993	4	3	1	1		2	2	--	--	--	--	**(2)**	

Continued next page

Notations described on next page

Duck Daily Bag Limit Restrictions History – Page 2.

	General	Mallard		Pintail		Canvas-back	Red-head	Scaup	Wood Duck	Ruddy Duck	Merg.	Notes	Bonus(a)
		Drake	Hen	Drake	Hen								
1994	4	3	1	1	2	2	2	--	--	--	--	**(2)**	
1995	6	--	1	2	1	2	2	--	--	--	--		
1996	7	--	1	2	1	2	2	--	--	--	--		
1997	7	--	2	3	1	2	2	--	--	--	--		
1998	7	--	2	1	1	2	2	--	--	--	--		
1999	7	--	2	1	1	2	4	--	--	--	--		
2000	7	--	2	1	1	2	4	--	--	--	--		
2001	7	--	2	1	1	2	4	--	--	--	--	**(4)**	
2002	7	--	2	1	**0**	2	4	--	--	--	--		
2003	7	--	2	1	1	2	4	--	--	--	--	**(4), (5)**	
2004	7	--	2	1	1	2	4	--	--	--	--	**(4), (5)**	
2005	7	--	2	1	1	2	3	--	--	--	--	**(4)**	
2006	7	--	2	1	1	2	3	--	--	--	--		
2007	7	--	2	1	2	2	3	--	--	--	--		
2008	7	--	2	1	0	2	2	--	--	--	--	**(8)**	
2009	**7**	--	**2**	**2**	**1**	**2**	**3**	--	--	--	--	**(8)**	

General Notations:

Symbol "--" indicates that this species has no separate limit restrictions from the general bag limit.

0 = Season closed for this species

Bonus Duck Notations:

(a) Bonus ducks - the indicated number represents the number of **pintails** or **wigeon** or the aggregate of both that could be taken in addition to the general bag limit.

(p) Bonus pintail - the indicated number represents the number of **pintails** that could be taken in addition to the general bag limit.

Canvasback & Redhead Daily Bag Limit Notations:

(1)	hunters could shoot 2 canvasbacks or 2 redheads or 2 ruddy duck or 2 in the aggregate
(2)	hunters could shoot no more than 2 canvasbacks or 2 redheads or one of each
(3)	hunters could shoot no more than 2 redheads, or a redhead and a canvasback

Partial Season Notations:

(CH)	canvasback closed in CH Co. only
(4)	Partial canvasback season
(5)	Partial pintail season
(8)	Partial scaup season

Other Pintail / Mallard Notations:

(6)	hunters could shoot 3 mallards or 3 pintails or 5 in the aggregate of which no more than 1 ♀ pintail and 1 ♀ mallard may be taken
(7)	hunters could shoot 3 mallards or 3 pintails or 6 in the aggregate

2008-09 SMALL GAME HARVEST DATA
Derived from modified post-season questionnaire

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-season Questionnaire ESTIMATED HARVEST

WATERFOWL **Species:** **DUCKS** Run date: 8/18/2009

HUNTING SEASON: **2008-09** **Expanded Data**

Survey Type: **Harvest and Hunting Pressure by County of Kill**

R	County of Harvest	Total Harvest	# of Hunters	# of Hunter Days	Kill/ Hunter	Kill/ Day	% of total Kill	% of total Hunters
WESTERN	Carson City	369	23	228	16.4	1.6	0.9%	0.5%
	Churchill	19,974	1,874	11,027	10.7	1.8	46.5%	38.3%
	Douglas	2,845	207	1,809	13.7	1.6	6.6%	4.2%
	Humboldt	698	104	511	6.7	1.4	1.6%	2.1%
	Lyon	3,877	482	2,557	8.0	1.5	9.0%	9.8%
	Mineral	764	54	356	14.1	2.1	1.8%	1.1%
	Pershing	1,180	194	831	6.1	1.4	2.8%	4.0%
	Storey	590	41	331	14.6	1.8	1.4%	0.8%
	Washoe	2,190	363	1,705	6.0	1.3	5.1%	7.4%
EASTERN	Elko	2,034	378	1,489	5.4	1.4	4.7%	7.7%
	Eureka	687	74	349	9.2	2.0	1.6%	1.5%
	Lander	205	27	151	7.6	1.4	0.5%	0.6%
	White Pine	315	70	187	4.5	1.7	0.7%	1.4%
SOUTHERN	Clark	3,417	394	2,253	8.7	1.5	8.0%	8.0%
	Esmeralda	7	2	2	3.0	3.0	0.0%	0.0%
	Lincoln	2,559	403	1,572	6.3	1.6	6.0%	8.2%
	Nye	1,203	207	662	5.8	1.8	2.8%	4.2%
	TOTALS:	**42,915**	**4,897**	**26,020**	**8.8**	**1.6**	**100%**	**100%**
Estimated # of Individual Hunters:				**3,212**				

NEVADA DEPARTMENT OF WILDLIFE - 2008-09 Small Game Post-season Questionnaire
Distribution of Duck Hunters by County of Origin

Origin of Hunter	% of Hunters	Counties Hunted																
		CC	CH	CL	DO	EL	ES	EU	HU	LA	LN	LY	MN	NY	PE	ST	WA	WP
CC	4.9%	3.5%	43.4%		9.7%				0.9%			21.2%	1.8%		1.8%		15.9%	
CH	6.2%		94.8%						0.9%			1.7%			1.7%		0.9%	
CL	19.5%		1.1%	37.8%		1.4%		0.5%		0.5%	37.6%	0.5%		18.1%	0.2%		0.7%	1.8%
DO	6.7%	0.8%	17.9%		51.2%				3.3%			14.6%	3.3%		3.3%		4.9%	
EL	8.6%		4.4%	0.6%		77.5%		14.4%	0.6%			1.3%					0.6%	0.6%
ES	0.0%																	
EU	0.3%		25.0%					50.0%										25.0%
HU	2.0%		2.9%						76.5%	2.9%		2.9%			8.8%		2.9%	2.9%
LA	0.6%							20.0%		70.0%								
LN	0.3%		20.0%								40.0%							20.0%
LY	8.3%		39.2%		1.1%	1.1%				0.6%		45.3%	3.9%		4.4%	0.6%	3.3%	
MN	0.6%											10.0%	90.0%					
NY	0.8%		15.8%	10.5%		5.3%					15.8%	10.5%		36.8%			5.3%	
PE	1.1%														100.0%			
ST	0.3%		33.3%									50.0%				16.7%		
WA	**31.2%**	0.8%	55.6%	0.3%	1.2%	1.9%		0.2%	1.7%		0.3%	10.8%			6.6%	2.3%	17.3%	0.3%
WP	1.3%					10.5%								10.5%				73.7%
NR	7.4%		52.8%	2.4%	5.5%	16.5%	0.8%	2.4%	1.6%		4.7%	3.1%	1.6%	2.4%			5.5%	0.8%
Distribution of all hunters by county:		0.5%	**34.3%**	8.6%	4.5%	8.2%	0.0%	1.6%	2.3%	0.5%	8.8%	10.3%	1.2%	4.5%	4.2%	0.8%	7.7%	1.4%

2008-09 Nevada Duck Harvest by County and Area (p1 of 2)

Based upon unexpanded data.

County and Area Hunted	HARVEST		HUNTERS		HUNTER DAYS		AVG	AVG
	#	% of T	#	% of T	#	% of T	D/HTR	D/DAY
CC Private Land:	*38*		*3*		*23*		*12.67*	*1.65*
CC Other:	*126*		*7*		*78*		*18.00*	*1.62*
CARSON CITY TOTALS:	**164**	**0.86%**	**10**	**0.46%**	**101**	**0.87%**	**16.40**	**1.62**
Stillwater NWR:	*1,942*		*249*	***11.45%***	*1,067*		*7.80*	*1.82*
Carson Lake:	*3,434*	***18.03%***	*198*		*1,456*		*17.34*	*2.36*
Canvasback Club:	*1,931*		*102*		*727*		*18.93*	*2.66*
Other Lahontan Valley:	*1,166*		*127*		*902*		*9.18*	*1.29*
Private Land:	*2,332*		*153*		*1,804*	***15.62%***	*15.24*	*1.29*
Other CH County:	*2*		*3*		*5*		*0.67*	*0.40*
TOTAL CHURCHILL COUNTY:	**8,867**	**46.54%**	**832**	**38.25%**	**4,895**	**42.38%**	**10.66**	**1.81**
Total Overton WMA:	*905*		*123*		*670*		*7.36*	*1.35*
Total Lake Mead NRA:	*152*		*22*		*72*		*6.91*	*2.11*
Total CL Private Land:	*202*		*10*		*132*		*20.20*	*1.53*
Total CL Other:	*258*		*20*		*126*		*12.90*	*2.05*
TOTAL CLARK COUNTY:	**1,517**	**7.96%**	**175**	**8.05%**	**1,000**	**8.66%**	**8.67**	**1.52**
Total DO Private Land:	*805*		*62*		*570*		*12.98*	*1.41*
Total DO Other:	*458*		*30*		*233*		*15.27*	*1.97*
TOTAL DOUGLAS COUNTY:	**1,263**	**6.63%**	**92**	**4.23%**	**803**	**6.95%**	**13.73**	**1.57**
Total Ruby Lake NWR:	*168*		*37*		*147*		*4.54*	*1.14*
Total Humboldt River (Deeth to Carlin):	*315*		*60*		*248*		*5.25*	*1.27*
Total EL Private Land:	*193*		*29*		*134*		*6.66*	*1.44*
Total EL Other:	*227*		*42*		*132*		*5.40*	*1.72*
TOTAL ELKO COUNTY:	**903**	**4.74%**	**168**	**7.72%**	**661**	**5.72%**	**5.38**	**1.37**
ES Other:	3		1		1			3.00
TOTAL ESMERALDA COUNTY:	**3**	**0.02%**	**1**	**0.05%**	**1**	**0.01%**	**3.00**	**3.00**
Total Humboldt River (Carlin to Dunphy):	*297*		*31*		*150*		*9.58*	*1.98*
Private Land (Specify)	*5*		*1*		*2*		*5.00*	*2.50*
Other (Specify)	*3*		*1*		*3*		*3.00*	*1.00*
TOTAL EUREKA COUNTY:	**305**	**1.60%**	**33**	**1.52%**	**155**	**1.34%**	**9.24**	**1.97**
Total Humboldt River (Valmy to Cosgrave):	*106*		*20*		*93*		*5.30*	*1.14*
Total HU Private Land:	*79*		*12*		*54*		*6.58*	*1.46*
Total HU Other:	*125*		*14*		*80*		*8.93*	*1.56*
TOTAL HUMBOLDT COUNTY:	**310**	**1.63%**	**46**	**2.11%**	**227**	**1.97%**	**6.74**	**1.37**
Total Humboldt River (Dunphy - Valmy):	*89*		*10*		*51*		*8.90*	*1.75*
Other (Specify)	*2*		*1*		*4*		*2.00*	*0.50*
Private Land (Specify)	*0*		*1*		*12*		*0.00*	*0.00*
TOTAL LANDER COUNTY:	**91**	**0.48%**	**12**	**0.55%**	**67**	**0.58%**	**7.58**	**1.36**

2008-09 Nevada Duck Harvest by County and Area (p2 of 2)								
*Based upon **unexpanded** data.*								
County and Area Hunted	**HARVEST**		**HUNTERS**		**HUNTER DAYS**		**AVG**	**AVG**
	#	**% of T**	**#**	**% of T**	**#**	**% of T**	**D/HTR**	**D/DAY**
Total Key Pittman WMA:	*463*		*85*		*284*		*5.45*	*1.63*
Total Pahranagat NWR:	*429*		*68*		*264*		*6.31*	*1.63*
Total LN Private Lands:	*222*		*21*		*138*		*10.57*	*1.61*
Total LN Other:	*22*		*5*		*12*		*4.40*	*1.83*
TOTAL LINCOLN COUNTY:	**1,136**	**5.96%**	**179**	**8.23%**	**698**	**6.04%**	**6.35**	**1.63**
Total Mason Valley WMA:	*1,005*		*143*		*744*		*7.03*	*1.35*
Total Fernley WMA:	*83*		*22*		*59*		*3.77*	*1.41*
Total LY Private Lands:	*538*		*30*		*217*		*17.93*	*2.48*
Total LY Other:	*95*		*19*		*115*		*5.00*	*0.83*
TOTAL LYON COUNTY:	**1,721**	**9.03%**	**214**	**9.84%**	**1,135**	**9.83%**	**8.04**	**1.52**
Total Walker Lake:	*315*		*21*		*145*		*15.00*	*2.17*
Total MN Other:	*24*		*3*		*13*		*8.00*	*1.85*
TOTAL MINERAL COUNTY:	**339**	**1.78%**	**24**	**1.10%**	**158**	**1.37%**	**14.13**	**2.15**
Total Railroad Valley:	*12*		*3*		*6*		*4.00*	*2.00*
Total Kirch WMA:	*439*		*62*		*186*		*7.08*	*2.36*
Total Ash Meadows NWR:	*69*		*22*		*60*		*3.14*	*1.15*
Total NY Private Lands:	*4*		*3*		*36*		*1.33*	*0.11*
Total NY Other:	*10*		*2*		*6*		*5.00*	*1.67*
TOTAL NYE COUNTY:	**534**	**2.80%**	**92**	**4.23%**	**294**	**2.55%**	**5.80**	**1.82**
Total Humboldt Sink/Toulon:	*232*		*48*		*173*		*4.83*	*1.34*
Total Rye Patch Reservoir:	*59*		*6*		*42*		*9.83*	*1.40*
Total Humboldt River (South of Rye Patch to Lovelock):	*217*		*28*		*142*		*7.75*	*1.53*
Total Rye Patch Reservoir:	*16*		*4*		*12*		*4.00*	*1.33*
TOTAL PERSHING COUNTY:	**524**	**2.75%**	**86**	**3.95%**	**369**	**3.19%**	**6.09**	**1.42**
Total ST Private Lands:	*51*		*4*		*21*		*12.75*	*2.43*
Total ST Other:	*211*		*14*		*126*		*15.07*	*1.67*
TOTAL STOREY COUNTY:	**262**	**1.38%**	**18**	**0.83%**	**147**	**1.27%**	**14.56**	**1.78**
Total Scripps WMA:	*68*		*32*		*144*		*2.13*	*0.47*
Total Washoe Lake:	*178*		*61*		*203*		*2.92*	*0.88*
Total WA Private Lands:	*188*		*22*		*133*		*8.55*	*1.41*
Total WA Other:	*538*		*46*		*277*		*11.70*	*1.94*
TOTAL WASHOE COUNTY:	**972**	**5.10%**	**161**	**7.40%**	**757**	**6.55%**	**6.04**	**1.28**
Total Steptoe Valley WMA:	*65*		*13*		*41*		*5.00*	*1.59*
Total WP Private Lands:	*45*		*12*		*27*		*3.75*	*1.67*
Total WP Private Lands:	*30*		*6*		*15*		*5.00*	*2.00*
TOTAL WHITE PINE COUNTY:	**140**	**0.73%**	**31**	**1.43%**	**83**	**0.72%**	**4.52**	**1.69**
TOTAL OF ALL RAW (unexpanded) DATA:	**19,051**		**2,175**		**11,551**		**8.76**	**1.65**

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-season Questionnaire ESTIMATED HARVEST

WATERFOWL **Species:** **DARK GEESE** Run date: 8/19/2009

HUNTING SEASON: **2008-09** **Expanded Data**

Survey Type: **Harvest and Hunting Pressure by County of Kill**

R	County of Harvest	Total Harvest	# of Hunters	# of Hunter Days	Kill/ Hunter	Kill/ Day	% of total Kill	% of total Hunters
WESTERN	Carson City	45	9	72	5.0	0.6	1.0%	0.6%
	Churchill	1,167	448	2,424	2.6	0.5	26.6%	27.6%
	Douglas	946	146	1,234	6.5	0.8	21.6%	9.0%
	Humboldt	273	56	336	4.8	0.8	6.2%	3.5%
	Lyon	719	306	1,192	2.3	0.6	16.4%	18.9%
	Mineral	36	14	108	2.7	0.3	0.8%	0.8%
	Pershing	34	27	81	1.3	0.4	0.8%	1.7%
	Storey	70	14	153	5.2	0.5	1.6%	0.8%
	Washoe	448	160	802	2.8	0.6	10.2%	9.8%
EASTERN	Elko	173	86	315	2.0	0.6	4.0%	5.3%
	Eureka	92	36	182	2.6	0.5	2.1%	2.2%
	Lander	52	18	99	2.9	0.5	1.2%	1.1%
	White Pine	72	29	88	2.5	0.8	1.6%	1.8%
SOUTHERN	Clark	171	131	721	1.3	0.2	3.9%	8.0%
	Esmeralda	0	0	0	0.0	0.0	0.0%	0.0%
	Lincoln	72	104	527	0.7	0.1	1.6%	6.4%
	Nye	14	41	176	0.3	0.1	0.3%	2.5%
	TOTALS:	**4,384**	**1,624**	**8,511**	**2.7**	**0.5**	**100%**	**100%**
	Estimated # of Individual Hunters:			**1,304**				

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-season Questionnaire ESTIMATED HARVEST

WATERFOWL **Species:** **WHITE GEESE** Run date: 8/19/2009

HUNTING SEASON: **2008-09** **Expanded Data**

Survey Type: **Harvest and Hunting Pressure by County of Kill**

R	County of Harvest	Total Harvest	# of Hunters	# of Hunter Days	Kill/ Hunter	Kill/ Day	% of total Kill	% of total Hunters
WESTERN	Carson City	0	0	0	0.0	0.0	0.0%	0.0%
	Churchill	124	140	687	0.9	0.2	38.2%	31.2%
	Douglas	36	27	198	1.3	0.2	11.1%	6.0%
	Humboldt	9	11	50	0.8	0.2	2.8%	2.5%
	Lyon	32	54	196	0.6	0.2	9.7%	12.1%
	Mineral	36	11	99	3.2	0.4	11.1%	2.5%
	Pershing	0	2	2	0.0	0.0	0.0%	0.5%
	Storey	2	5	16	0.5	0.1	0.7%	1.0%
	Washoe	9	25	155	0.4	0.1	2.8%	5.5%
EASTERN	Elko	9	14	45	0.7	0.2	2.8%	3.0%
	Eureka	0	0	0	0.0	0.0	0.0%	0.0%
	Lander	0	0	0	0.0	0.0	0.0%	0.0%
	White Pine	0	5	5	0.0	0.0	0.0%	1.0%
SOUTHERN	Clark	27	61	394	0.4	0.1	8.3%	13.6%
	Esmeralda	0	0	0	0.0	0.0	0.0%	0.0%
	Lincoln	16	63	295	0.3	0.1	4.9%	14.1%
	Nye	25	32	209	0.8	0.1	7.6%	7.0%
	TOTALS:	**324**	**448**	**2,352**	**0.7**	**0.1**	**100%**	**100%**
Estimated # of Individual Hunters:				**331**				

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-season Questionnaire ESTIMATED HARVEST

WATERFOWL **Species:** **COOT** Run date: 8/19/2009

HUNTING SEASON: **2008-09** **Expanded Data**

Survey Type: **Harvest and Hunting Pressure by County of Kill**

R	County of Harvest	Total Harvest	# of Hunters	# of Hunter Days	Kill/ Hunter	Kill/ Day	% of total Kill	% of total Hunters
WESTERN	Carson City	0	0	0	0.0	0.0	0.0%	0.0%
	Churchill	250	79	338	3.2	0.7	29.1%	28.5%
	Douglas	5	7	25	0.7	0.2	0.5%	2.4%
	Humboldt	101	5	32	22.5	3.2	11.8%	1.6%
	Lyon	63	20	65	3.1	1.0	7.3%	7.3%
	Mineral	0	0	0	0.0	0.0	0.0%	0.0%
	Pershing	0	2	2	0.0	0.0	0.0%	0.8%
	Storey	0	2	2	0.0	0.0	0.0%	0.8%
	Washoe	7	7	16	1.0	0.4	0.8%	2.4%
EASTERN	Elko	70	9	63	7.8	1.1	8.1%	3.3%
	Eureka	101	5	32	22.5	3.2	11.8%	1.6%
	Lander	2	2	2	1.0	1.0	0.3%	0.8%
	White Pine	7	7	7	1.0	1.0	0.8%	2.4%
SOUTHERN	Clark	151	63	207	2.4	0.7	17.6%	22.8%
	Esmeralda	0	2	5	0.0	0.0	0.0%	0.8%
	Lincoln	65	45	106	1.5	0.6	7.6%	16.3%
	Nye	36	23	54	1.6	0.7	4.2%	8.1%
	TOTALS:	**858**	**277**	**955**	**3.1**	**0.9**	**100%**	**100%**
	Estimated # of Individual Hunters:			**198**				

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-season Questionnaire ESTIMATED HARVEST

WATERFOWL **Species:** **SNIPE** Run date: 8/19/2009

HUNTING SEASON: **2008-09** **Expanded Data**

Survey Type: **Harvest and Hunting Pressure by County of Kill**

R	County of Harvest	Total Harvest	# of Hunters	# of Hunter Days	Kill/ Hunter	Kill/ Day	% of total Kill	% of total Hunters
WESTERN	Carson City	0	0	0	0.0	0.0	0.0%	0.0%
	Churchill	2	25	117	0.1	0.0	3.3%	17.5%
	Douglas	0	0	0	0.0	0.0	0.0%	0.0%
	Humboldt	0	0	0	0.0	0.0	0.0%	0.0%
	Lyon	9	9	16	1.0	0.6	13.3%	6.3%
	Mineral	0	0	0	0.0	0.0	0.0%	0.0%
	Pershing	2	5	5	0.5	0.5	3.3%	3.2%
	Storey	0	2	14	0.0	0.0	0.0%	1.6%
	Washoe	2	7	25	0.3	0.1	3.3%	4.8%
EASTERN	Elko	11	7	43	1.7	0.3	16.7%	4.8%
	Eureka	0	0	0	0.0	0.0	0.0%	0.0%
	Lander	0	0	0	0.0	0.0	0.0%	0.0%
	White Pine	0	5	5	0.0	0.0	0.0%	3.2%
SOUTHERN	Clark	18	29	115	0.6	0.2	26.7%	20.6%
	Esmeralda	0	0	0	0.0	0.0	0.0%	0.0%
	Lincoln	11	34	167	0.3	0.1	16.7%	23.8%
	Nye	11	20	106	0.6	0.1	16.7%	14.3%
	TOTALS:	**68**	**142**	**610**	**0.5**	**0.1**	**100%**	**100%**
Estimated # of Individual Hunters:				**88**				

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-season Questionnaire ESTIMATED HARVEST

MIGRATORY BIRDS **Species:** **MOURNING DOVE** Run date: 8/24/2009

HUNTING SEASON: **2008-09** **Expanded Data**

Survey Type: **Harvest and Hunting Pressure by County of Kill**

R	County of Harvest	Total Harvest	# of Hunters	# of Hunter Days	Kill/ Hunter	Kill/ Day	% of total Kill	% of total Hunters
WESTERN	Carson City	625	54	378	11.5	1.7	1.2%	1.2%
	Churchill	8,212	542	1,949	15.2	4.2	15.9%	12.1%
	Douglas	1,385	154	481	9.0	2.9	2.7%	3.4%
	Humboldt	1,128	128	346	8.8	3.3	2.2%	2.9%
	Lyon	8,978	801	2,513	11.2	3.6	17.3%	17.8%
	Mineral	122	35	96	3.5	1.3	0.2%	0.8%
	Pershing	1,186	99	282	11.9	4.2	2.3%	2.2%
	Storey	862	80	205	10.8	4.2	1.7%	1.8%
	Washoe	14,686	955	3,875	15.4	3.8	28.4%	21.3%
EASTERN	Elko	2,212	276	853	8.0	2.6	4.3%	6.1%
	Eureka	179	48	67	3.7	2.7	0.3%	1.1%
	Lander	337	51	128	6.6	2.6	0.6%	1.1%
	White Pine	301	54	128	5.5	2.4	0.6%	1.2%
SOUTHERN	Clark	7,458	734	2,253	10.2	3.3	14.4%	16.3%
	Esmeralda	378	32	99	11.8	3.8	0.7%	0.7%
	Lincoln	1,215	192	401	6.3	3.0	2.3%	4.3%
	Nye	2,522	256	785	9.8	3.2	4.9%	5.7%
	TOTALS:	**51,785**	**4,494**	**14,840**	**11.5**	**3.5**	**100%**	**100%**
Estimated # of Individual Hunters:				**4,215**				

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-season Questionnaire ESTIMATED HARVEST

MIGRATORY BIRDS **Species:** **White-winged Dove** Run date: 8/24/2009

HUNTING SEASON: **2008-09** **Expanded Data**

Survey Type: **Harvest and Hunting Pressure by County of Kill**

County of Harvest	Total Harvest	# of Hunters	Kill/ Hunter	% of total Kill	% of total Hunters
Clark	292	77	3.8	82.7%	85.7%
Nye	61	13	4.8	17.3%	14.3%
TOTALS:	**353**	**90**	**3.9**	**100%**	**100%**
Estimated # of Individual Hunters:		**93**			

NEVADA DEPARTMENT OF WILDLIFE

Small Game Post-season Questionnaire ESTIMATED HARVEST

MIGRATORY BIRDS **Species:** **Eurasian Collared Dove** Run date: 8/24/2009

HUNTING SEASON: **2008-09** **Expanded Data**

Survey Type: **Harvest and Hunting Pressure by County of Kill**

R	County of Harvest	Total Harvest	# of Hunters	Kill/ Hunter	% of total Kill	% of total Hunters
WESTERN	Carson City	13	3	4.0	0.7%	1.1%
	Churchill	308	48	6.4	16.1%	16.1%
	Douglas	3	3	1.0	0.2%	1.1%
	Humboldt	22	13	1.8	1.2%	4.3%
	Lyon	163	48	3.4	8.6%	16.1%
	Mineral	0	0	0.0	0.0%	0.0%
	Pershing	83	13	6.5	4.4%	4.3%
	Storey	10	3	3.0	0.5%	1.1%
	Washoe	54	13	4.3	2.9%	4.3%
EASTERN	Elko	26	3	8.0	1.3%	1.1%
	Eureka	0	0	0.0	0.0%	0.0%
	Lander	0	0	0.0	0.0%	0.0%
	White Pine	48	16	3.0	2.5%	5.4%
SOUTHERN	Clark	962	90	10.7	50.4%	30.1%
	Esmeralda	32	3	10.0	1.7%	1.1%
	Lincoln	115	16	7.2	6.1%	5.4%
	Nye	67	26	2.6	3.5%	8.6%
	TOTALS:	**1,907**	**298**	**6.4**	**100%**	**100%**

Estimated # of Individual Hunters: **288**

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-season Questionnaire ESTIMATED HARVEST

MIGRATORY BIRDS **Species:** **AMERICAN CROW** Run date: 8/24/2009

HUNTING SEASON: **2008-09** **Expanded Data**

Survey Type: **Harvest and Hunting Pressure by County of Kill**

R	County of Harvest	Total Harvest	# of Hunters	# of Hunter Days	Kill/ Hunter	Kill/ Day	% of total Kill	% of total Hunters
WESTERN	Carson City	0	0	0	0.0	0.0	0.0%	0.0%
	Churchill	93	10	42	9.7	2.2	17.3%	9.7%
	Douglas	0	0	0	0.0	0.0	0.0%	0.0%
	Humboldt	42	13	26	3.3	1.6	7.7%	12.9%
	Lyon	29	16	35	1.8	0.8	5.4%	16.1%
	Mineral	19	3	26	6.0	0.8	3.6%	3.2%
	Pershing	0	0	0	0.0	0.0	0.0%	0.0%
	Storey	32	6	6	5.0	5.0	6.0%	6.5%
	Washoe	16	13	19	1.3	0.8	3.0%	12.9%
EASTERN	Elko	19	10	19	2.0	1.0	3.6%	9.7%
	Eureka	0	0	0	0.0	0.0	0.0%	0.0%
	Lander	109	10	32	11.3	3.4	20.2%	9.7%
	White Pine	32	6	16	5.0	2.0	6.0%	6.5%
SOUTHERN	Clark	80	6	19	12.5	4.2	14.9%	6.5%
	Esmeralda	0	0	0	0.0	0.0	0.0%	0.0%
	Lincoln	67	6	54	10.5	1.2	12.5%	6.5%
	Nye	0	0	0	0.0	0.0	0.0%	0.0%
	TOTALS:	**538**	**99**	**295**	**5.4**	**1.8**	**100%**	**100%**
Estimated # of Individual Hunters:				**99**				

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-Season Questionnaire

UPLAND GAME SURVEY — SAGE-GROUSE

HUNTING SEASON: 2008-09 — *Expanded Data*

Survey Type: Upland Game Stamp Holders — **Harvest and Hunting Pressure by County of Kill**

R	County of Kill	Total Harvest	# of Hunters	# of Hunter Days	Kill/ Hunter	Kill/ Day	% of total Kill	% of total Hunters
WESTERN	Carson City*	0	1	2	0.0	0.0	0%	0%
	Churchill	184	95	173	1.9	1.1	3%	3%
	Douglas*	0	0	0	0.0	0.0	0%	0%
	Humboldt	1168	699	1342	1.7	0.9	20%	21%
	Lyon*	4	4	8	1.0	0.5	0%	0%
	Mineral*	2	2	7	1.0	0.3	0%	0%
	Pershing*	0	1	1	0.0	0.0	0%	0%
	Storey*	0	0	0	0.0	0.0	0%	0%
	Washoe	615	565	1118	1.1	0.6	11%	17%
	Western Region Subtotals:	***1974***	***1366***	***2651***	***1.4***	***0.7***	***34%***	***42%***
EASTERN	Elko	1861	961	2336	1.9	0.8	32%	29%
	Eureka	671	268	626	2.5	1.1	12%	8%
	Lander	430	263	531	1.6	0.8	7%	8%
	White Pine	492	229	509	2.1	1.0	8%	7%
	Eastern Region Subtotals:	***3454***	***1722***	***4002***	***2.0***	***0.9***	***60%***	***53%***
SOUTHERN	Clark*	0	2	5	0.0	0.0	0%	1%
	Esmeralda*	0	1	2	0.0	0.0	0%	1%
	Lincoln*	0	1	1	0.0	0.0	0%	1%
	Nye	347	179	324	1.9	1.1	6%	5%
	Southern Region Subtotals:	***347***	***183***	***332***	***1.9***	***1.0***	***6%***	***6%***
	TOTALS:	**5775**	**3271**	**6985**	**1.8**	**0.8**	**100%**	**100%**

*****Indicates raw data, not expanded data. These counties were closed to sage-grouse hunting and had reported harvest; however, when expansion factors were applied to the raw data, inflated numbers of birds harvested were calculated. We do not feel that some of these numbers were appropriate so the raw data is being used to indicate some reported harvest and hunting activity in closed units.

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-season Questionnaire

UPLAND GAME SURVEY — BLUE GROUSE

HUNTING SEASON: **2008-09** — *Expanded Data*

Survey Type: Upland Game Stamp Holders — **Harvest and Hunting Pressure by County of Kill**

R	County of Kill	Total Harvest	# of Hunters	# of Hunter Days	Kill/ Hunter	Kill/ Day	% of total Kill	% of total Hunters
WESTERN	Carson City	102	97	331	1.0	0.3	5%	6%
	Churchill	0	0	0	0.0	0.0	0%	0%
	Douglas	80	113	311	0.7	0.3	4%	7%
	Humboldt	0	5	11	0.0	0.0	0%	0%
	Lyon	0	0	0	0.0	0.0	0%	0%
	Mineral	0	0	0	0.0	0.0	0%	0%
	Pershing	0	0	0	0.0	0.0	0%	0%
	Storey	0	0	0	0.0	0.0	0%	0%
	Washoe	358	520	1227	0.7	0.3	18%	31%
	Western Region Subtotals:	***540***	***735***	***1880***	***0.7***	***0.3***	***28%***	***44%***
EASTERN	Elko	684	529	1154	1.3	0.6	35%	32%
	Eureka	51	22	54	2.3	0.9	3%	1%
	Lander	112	75	135	1.5	0.8	6%	4%
	White Pine	527	237	608	2.2	0.9	27%	14%
	Eastern Region Subtotals:	***1374***	***863***	***1951***	***1.6***	***0.7***	***71%***	***52%***
SOUTHERN	Clark	0	11	33	0.0	0.0	0%	1%
	Esmeralda	0	0	0	0.0	0.0	0%	0%
	Lincoln	6	28	73	0.2	0.1	0%	2%
	Nye	16	33	33	0.5	0.5	1%	2%
	Southern Region Subtotals:	***22***	***72***	***139***	***0.3***	***0.2***	***1%***	***4%***
	TOTALS:	**1936**	**1670**	**3970**	**1.2**	**0.5**	**100%**	**100%**

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-season Questionnaire

UPLAND GAME SURVEY

RUFFED GROUSE

Expanded Data

HUNTING SEASON: **2008-09**

Survey Type: Upland Game Stamp Holders

Harvest and Hunting Pressure by County of Kill

R	County of Kill	Total Harvest	# of Hunters	# of Hunter Days	Kill/ Hunter	Kill/ Day	% of total Kill	% of total Hunters
WESTERN	Carson City	0	0	0	0.0	0.0	0%	0%
	Churchill	0	0	0	0.0	0.0	0%	0%
	Douglas	0	0	0	0.0	0.0	0%	0%
	Humboldt	41	64	99	0.6	0.4	13%	21%
	Lyon	0	0	0	0.0	0.0	0%	0%
	Mineral	0	0	0	0.0	0.0	0%	0%
	Pershing	0	0	0	0.0	0.0	0%	0%
	Storey	0	0	0	0.0	0.0	0%	0%
	Washoe	0	0	0	0.0	0.0	0%	0%
	Western Region Subtotals:	***41***	***64***	***99***	***0.6***	***0.4***	***13.2%***	***20.8%***
EASTERN	Elko	268	245	571	1.1	0.5	87%	79%
	Eureka	0	0	0	0.0	0.0	0%	0%
	Lander	0	0	0	0.0	0.0	0%	0%
	White Pine	0	0	0	0.0	0.0	0%	0%
	Eastern Region Subtotals:	***268***	***245***	***571***	***1.1***	***0.5***	***86.8%***	***79.2%***
SOUTHERN	Clark	0	0	0	0.0	0.0	0%	0%
	Esmeralda	0	0	0	0.0	0.0	0%	0%
	Lincoln	0	0	0	0.0	0.0	0%	0%
	Nye	0	0	0	0.0	0.0	0%	0%
	Southern Region Subtotals:	***0***	***0***	***0***	***0.0***	***0.0***	***0%***	***0%***
	TOTALS:	**309**	**309**	**670**	**1.0**	**0.5**	**100%**	**100%**

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-season Questionnaire

UPLAND GAME SURVEY — CHUKAR

HUNTING SEASON: **2008-09** — *Expanded Data*

Survey Type: Upland Game Stamp Holders — **Harvest and Hunting Pressure by County of Kill**

R	County of Kill	Total Harvest	# of Hunters	# of Hunter Days	Kill/ Hunter	Kill/ Day	% of total Kill	% of total Hunters
WESTERN	Carson City	186	94	253	2.0	0.7	0%	1%
	Churchill	1763	563	1701	3.1	1.0	3%	5%
	Douglas	156	97	253	1.6	0.6	0%	1%
	Humboldt	18515	2375	10994	7.8	1.7	30%	20%
	Lyon	1634	566	2701	2.9	0.6	3%	5%
	Mineral	259	89	402	2.9	0.6	0%	1%
	Pershing	4435	1089	3445	4.1	1.3	7%	9%
	Storey	539	173	488	3.1	1.1	1%	1%
	Washoe	19534	3192	13458	6.1	1.5	32%	27%
	Western Region Subtotals:	***47022***	***8239***	***33696***	***5.7***	***1.4***	***77%***	***70%***
EASTERN	Elko	5551	1202	5208	4.6	1.1	9%	10%
	Eureka	2507	426	1728	5.9	1.5	4%	4%
	Lander	2416	555	2243	4.3	1.1	4%	5%
	White Pine	105	92	237	1.1	0.4	0%	1%
	Eastern Region Subtotals:	***10579***	***2275***	***9417***	***4.6***	***1.1***	***17%***	***19%***
SOUTHERN	Clark	1324	491	2000	2.7	0.7	2%	4%
	Esmeralda	491	73	426	6.7	1.2	1%	1%
	Lincoln	609	245	1108	2.5	0.5	1%	2%
	Nye	1283	412	1663	3.1	0.8	2%	4%
	Southern Region Subtotals:	***3707***	***1221***	***5198***	***3.0***	***0.7***	***6%***	***10%***
	TOTALS:	**61307**	**11735**	**48310**	**5.2**	**1.3**	**100%**	**100%**

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-season Questionnaire

UPLAND GAME SURVEY

HUNGARIAN PARTRIDGE

Expanded Data

HUNTING SEASON: 2008-09

Survey Type: Upland Game Stamp Holders

Harvest and Hunting Pressure by County of Kill

R	County of Kill	Total Harvest	# of Hunters	# of Hunter Days	Kill/ Hunter	Kill/ Day	% of total Kill	% of total Hunters
WESTERN	Carson City	0	0	0	0.0	0.0	0%	0%
	Churchill	0	5	5	0.0	0.0	0%	0%
	Douglas	0	10	24	0.0	0.0	0%	1%
	Humboldt	526	344	2037	1.5	0.3	38%	32%
	Lyon	0	10	76	0.0	0.0	0%	1%
	Mineral	29	10	29	3.0	1.0	2%	1%
	Pershing	14	43	72	0.3	0.2	1%	4%
	Storey	0	5	14	0.0	0.0	0%	0%
	Washoe	38	53	167	0.7	0.2	3%	5%
	Western Region Subtotals:	***607***	***478***	***2424***	***1.3***	***0.3***	***44%***	***45%***
EASTERN	Elko	588	411	1496	1.4	0.4	43%	39%
	Eureka	86	57	411	1.5	0.2	6%	5%
	Lander	53	72	296	0.7	0.2	4%	7%
	White Pine	0	5	10	0.0	0.0	0%	0%
	Eastern Region Subtotals:	***727***	***545***	***2213***	***1.3***	***0.3***	***53%***	***51%***
SOUTHERN	Clark	0	5	19	0.0	0.0	0%	0%
	Esmeralda	0	0	0	0.0	0.0	0%	0%
	Lincoln	14	10	62	1.5	0.2	1%	1%
	Nye	19	24	48	0.8	0.4	1%	2%
	Southern Region Subtotals:	***33***	***38***	***129***	***0.9***	***0.3***	***2%***	***4%***
	TOTALS:	**1367**	**1061**	**4766**	**1.3**	**0.3**	**100%**	**100%**

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-season Questionnaire

UPLAND GAME SURVEY — CALIFORNIA QUAIL
HUNTING SEASON: **2008-09** — *Expanded Data*
Survey Type: Upland Game Stamp Holders — **Harvest and Hunting Pressure by County of Kill**

R	County of Kill	Total Harvest	# of Hunters	# of Hunter Days	Kill/ Hunter	Kill/ Day	% of total Kill	% of total Hunters
WESTERN	Carson City	824	135	726	6.1	1.1	2%	3%
	Churchill	8028	681	2958	11.8	2.7	22%	14%
	Douglas	3370	374	1468	9.0	2.3	9%	7%
	Humboldt	3872	734	2569	5.3	1.5	11%	15%
	Lyon	8484	1053	4724	8.1	1.8	23%	21%
	Mineral	37	45	187	0.8	0.2	0%	1%
	Pershing	2621	337	1303	7.8	2.0	7%	7%
	Storey	457	67	195	6.8	2.3	1%	1%
	Washoe	8387	1348	5616	6.2	1.5	23%	27%
	Western Region Subtotals:	***36079***	***4775***	***19746***	***7.6***	***1.8***	***99%***	***95%***
EASTERN	Elko	337	75	150	4.5	2.3	1%	1%
	Eureka	0	0	0	0.0	0.0	0%	0%
	Lander	46	35	142	1.3	0.3	0%	1%
	White Pine	47	15	22	3.1	2.1	0%	0%
	Eastern Region Subtotals:	***430***	***125***	***314***	***3.4***	***1.4***	***1%***	***2%***
SOUTHERN	Clark	0	0	0	0.0	0.0	0%	0%
	Esmeralda	0	0	0	0.0	0.0	0%	0%
	Lincoln	0	0	0	0.0	0.0	0%	0%
	Nye	105	105	157	1.0	0.7	0%	2%
	Southern Region Subtotals:	***105***	***105***	***157***	***1.0***	***0.7***	***0%***	***2%***
	TOTALS:	**36614**	**5004**	**20217**	**7.3**	**1.8**	**100%**	**100%**

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-season Questionnaire

UPLAND GAME SURVEY GAMBEL'S QUAIL

HUNTING SEASON: **2008-09** *Expanded Data*

Survey Type: Upland Game Stamp Holders **Harvest and Hunting Pressure by County of Kill**

R	County of Kill	Total Harvest	# of Hunters	# of Hunter Days	Kill/ Hunter	Kill/ Day	% of total Kill	% of total Hunters
WESTERN	Carson City	0	0	0	0.0	0.0	0%	0%
	Churchill	0	0	0	0.0	0.0	0%	0%
	Douglas	0	0	0	0.0	0.0	0%	0%
	Humboldt	0	0	0	0.0	0.0	0%	0%
	Lyon	0	0	0	0.0	0.0	0%	0%
	Mineral	0	0	0	0.0	0.0	0%	0%
	Pershing	0	0	0	0.0	0.0	0%	0%
	Storey	0	0	0	0.0	0.0	0%	0%
	Washoe	0	0	0	0.0	0.0	0%	0%
	Western Region Subtotals:	***0***	***0***	***0***	***0.0***	***0.0***	***0%***	***0%***
EASTERN	Elko	0	0	0	0.0	0.0	0%	0%
	Eureka	0	0	0	0.0	0.0	0%	0%
	Lander	0	0	0	0.0	0.0	0%	0%
	White Pine	0	0	0	0.0	0.0	0%	0%
	Eastern Region Subtotals:	***0***	***0***	***0***	***0.0***	***0.0***	***0%***	***0%***
SOUTHERN	Clark	12307	2393	9446	5.1	1.3	75%	73%
	Esmeralda	43	29	81	1.5	0.5	0%	1%
	Lincoln	3429	640	2843	5.4	1.2	21%	20%
	Nye	737	196	445	3.8	1.7	4%	6%
	Southern Region Subtotals	***16516***	***3258***	***12815***	***5.1***	***1.3***	***100%***	***100%***
	TOTALS:	**16516**	**3258**	**12815**	**5.1**	**1.3**	**100%**	**100%**

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-season Questionnaire

UPLAND GAME SURVEY — MOUNTAIN QUAIL

HUNTING SEASON: 2008-09 — *Expanded Data*

Survey Type: Upland Game Stamp Holders — **Harvest and Hunting Pressure by County of Kill**

R	County of Kill	Total Harvest	# of Hunters	# of Hunter Days	Kill/ Hunter	Kill/ Day	% of total Kill	% of total Hunters
WESTERN	Carson City	46	13	44	3.6	1.1	3%	3%
	Churchill	320	31	426	10.3	0.8	22%	7%
	Douglas	108	54	121	2.0	0.9	7%	11%
	Humboldt	75	34	158	2.2	0.5	5%	7%
	Lyon	318	83	372	3.8	0.9	22%	17%
	Mineral	18	15	44	1.2	0.4	1%	3%
	Pershing	26	15	101	1.7	0.3	2%	3%
	Storey	5	5	5	1.0	1.0	0%	1%
	Washoe	457	155	532	3.0	0.9	31%	33%
	Western Region Subtotals:	***1374***	***406***	***1803***	***3.4***	***0.8***	***93%***	***85%***
EASTERN	Elko	13	15	31	0.8	0.4	1%	3%
	Eureka	0	3	8	0.0	0.0	0%	1%
	Lander	0	0	0	0.0	0.0	0%	0%
	White Pine	0	0	0	0.0	0.0	0%	0%
	Eastern Region Subtotals:	***13***	***18***	***39***	***0.7***	***0.3***	***1%***	***4%***
SOUTHERN	Clark	0	0	0	0.0	0.0	0%	0%
	Esmeralda	23	10	31	2.3	0.8	2%	2%
	Lincoln	0	0	0	0.0	0.0	0%	0%
	Nye	59	41	98	1.4	0.6	4%	9%
	Southern Region Subtotals:	***83***	***52***	***129***	***1.6***	***0.6***	***6%***	***11%***
	TOTALS:	**1470**	**475**	**1971**	**3.1**	**0.7**	**100%**	**100%**

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-season Questionnaire

UPLAND GAME SURVEY PHEASANT

HUNTING SEASON: **2008-09** *Expanded Data*

Survey Type: Upland Game Stamp Holders **Harvest and Hunting Pressure by County of Kill**

R	County of Kill	Total Harvest	# of Hunters	# of Hunter Days	Kill/ Hunter	Kill/ Day	% of total Kill	% of total Hunters
WESTERN	Carson City	0	6	6	0.0	0.0	0%	1%
	Churchill	12	18	18	0.7	0.7	3%	3%
	Douglas	0	0	0	0.0	0.0	0%	0%
	Humboldt	339	285	612	1.2	0.6	73%	48%
	Lyon	6	95	374	0.1	0.0	1%	16%
	Mineral	0	0	0	0.0	0.0	0%	0%
	Pershing	71	83	190	0.9	0.4	15%	14%
	Storey	0	0	0	0.0	0.0	0%	0%
	Washoe	0	6	6	0.0	0.0	0%	1%
	Western Region Subtotals:	***428***	***493***	***1206***	***0.9***	***0.4***	***92%***	***84%***
EASTERN	Elko	6	6	6	1.0	1.0	1%	1%
	Eureka	0	0	0	0.0	0.0	0%	0%
	Lander	12	24	42	0.5	0.3	3%	4%
	White Pine	0	0	0	0.0	0.0	0%	0%
	Eastern Region Subtotals:	***18***	***30***	***48***	***0.6***	***0.4***	***4%***	***5%***
SOUTHERN	Clark	18	36	77	0.5	0.2	4%	6%
	Esmeralda	0	0	0	0.0	0.0	0%	0%
	Lincoln	0	12	18	0.0	0.0	0%	2%
	Nye	0	18	18	0.0	0.0	0%	3%
	Southern Region Subtotals:	***18***	***65***	***113***	***0.3***	***0.2***	***4%***	***11%***
	TOTALS:	**463**	**588**	**1366**	**0.8**	**0.3**	**100%**	**100%**

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-season Questionnaire

UPLAND GAME SURVEY RABBIT

HUNTING SEASON: **2008-09**

Expanded Data

Survey Type: Upland Game Stamp Holders

Harvest and Hunting Pressure by County of Kill

R	County of Kill	Total Harvest	# of Hunters	# of Hunter Days	Kill/ Hunter	Kill/ Day	% of total Kill	% of total Hunters
WESTERN	Carson City	57	10	38	6.0	1.5	0%	0%
	Churchill	1755	171	1201	10.3	1.5	11%	6%
	Douglas	129	38	445	3.4	0.3	1%	1%
	Humboldt	1066	163	669	6.6	1.6	7%	6%
	Lyon	683	203	809	3.4	0.8	4%	8%
	Mineral	137	28	145	4.9	0.9	1%	1%
	Pershing	182	62	225	2.9	0.8	1%	2%
	Storey	33	10	14	3.5	2.3	0%	0%
	Washoe	1320	344	1664	3.8	0.8	8%	13%
	Western Region Subtotals:	***5363***	***1028***	***5211***	***5.2***	***1.0***	***34%***	***38%***
EASTERN	Elko	3214	306	1922	10.5	1.7	20%	11%
	Eureka	406	48	320	8.5	1.3	3%	2%
	Lander	153	43	120	3.6	1.3	1%	2%
	White Pine	966	105	253	9.2	3.8	6%	4%
	Eastern Region Subtotals:	***4739***	***502***	***2616***	***9.4***	***1.8***	***30%***	***19%***
SOUTHERN	Clark	2750	645	3338	4.3	0.8	17%	24%
	Esmeralda	139	24	72	5.8	1.9	1%	1%
	Lincoln	1606	295	1385	5.4	1.2	10%	11%
	Nye	1282	196	990	6.5	1.3	8%	7%
	Southern Region Subtotals:	***5776***	***1160***	***5785***	***5.0***	***1.0***	***36%***	***43%***
	TOTALS:	**15878**	**2691**	**13611**	**5.9**	**1.2**	**100%**	**100%**

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-season Questionnaire

UPLAND GAME SURVEY — PYGMY RABBIT

HUNTING SEASON: 2008-09 — *Expanded Data*

Survey Type: Upland Game Stamp Holders — **Harvest and Hunting Pressure by County of Kill**

R	County of Kill	Total Harvest	# of Hunters	# of Hunter Days	Kill/ Hunter	Kill/ Day	% of total Kill	% of total Hunters
WESTERN	Carson City	0	0	0	0.0	0.0	0%	0%
	Churchill	14	9	206	1.5	0.1	6%	9%
	Douglas	14	5	5	3.0	3.0	6%	4%
	Humboldt	9	5	18	2.0	0.5	4%	4%
	Lyon	64	14	64	4.7	1.0	26%	13%
	Mineral	0	0	0	0.0	0.0	0%	0%
	Pershing	0	0	0	0.0	0.0	0%	0%
	Storey	18	5	9	4.0	2.0	8%	4%
	Washoe	9	5	27	2.0	0.3	4%	4%
	Western Region Subtotals:	***128***	***41***	***330***	***3.1***	***0.4***	***53%***	***39%***
EASTERN	Elko	5	14	55	0.3	0.1	2%	13%
	Eureka	0	0	0	0.0	0.0	0%	0%
	Lander	0	0	0	0.0	0.0	0%	0%
	White Pine	37	27	78	1.3	0.5	15%	26%
	Eastern Region Subtotals:	***41***	***41***	***133***	***1.0***	***0.3***	***17%***	***39%***
SOUTHERN	Clark	0	0	0	0.0	0.0	0%	0%
	Esmeralda	0	0	0	0.0	0.0	0%	0%
	Lincoln	37	14	37	2.7	1.0	15%	13%
	Nye	37	9	50	4.0	0.7	15%	9%
	Southern Region Subtotals:	***73***	***23***	***87***	***3.2***	***0.8***	***30%***	***22%***
	TOTALS:	**243**	**105**	**550**	**2.3**	**0.4**	**100%**	**100%**

NEVADA DEPARTMENT OF WILDLIFE
Small Game Post-season Questionnaire

UPLAND GAME SURVEY
HUNTING SEASON: 2008-09
Survey Type: Upland Game Stamp Holders

WHITE-TAILED JACKRABBIT

Expanded Data

Harvest and Hunting Pressure by County of Kill

R	County of Kill	Total Harvest	# of Hunters	# of Hunter Days	Kill/ Hunter	Kill/ Day	% of total Kill	% of total Hunters
WESTERN	Carson City	0	0	0	0.0	0.0	0%	0%
	Churchill	0	0	**0**	0.0	0.0	0%	0%
	Douglas	0	0	0	0.0	0.0	0%	0%
	Humboldt	67	8	101	8.0	0.7	24%	10%
	Lyon	0	0	0	0.0	0.0	0%	0%
	Mineral	0	0	0	0.0	0.0	0%	0%
	Pershing	0	0	0	0.0	0.0	0%	0%
	Storey	0	0	0	0.0	0.0	0%	0%
	Washoe	88	21	84	4.2	1.1	31%	25%
	Western Region Subtotals:	***155***	***29***	***185***	***5.3***	***0.8***	***55%***	***35%***
EASTERN	Elko	46	25	63	1.8	0.7	16%	30%
	Eureka	4	8	17	0.5	0.3	1%	10%
	Lander	0	0	0	0.0	0.0	0%	0%
	White Pine	71	13	67	5.7	1.1	25%	15%
	Eastern Region Subtotals:	***122***	***46***	***147***	***2.6***	***0.8***	***43%***	***55%***
SOUTHERN	Clark	0	0	0	0.0	0.0	0%	0%
	Esmeralda	0	0	0	0.0	0.0	0%	0%
	Lincoln	0	0	0	0.0	0.0	0%	0%
	Nye	4	8	8	0.5	0.5	1%	10%
	Southern Region Subtotals:	***4***	***8***	***8***	***0.5***	***0.5***	***1%***	***10%***
TOTALS:		**282**	**84**	**340**	**3.4**	**0.8**	**100%**	**100%**