

IDAHO DEPARTMENT OF FISH AND GAME

Cal Groen, Director

Project W-170-R-32

Progress Report



MULE DEER

Study I, Job 2

July 1, 2007 to June 30, 2008

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**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Mule Deer Surveys and</u>
PROJECT:	<u>W-170-R-32</u>		<u>Inventories</u>
SUBPROJECT:	<u>1-7</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>1</u>		<u>Trends, Use, and Associated</u>
JOB:	<u>2</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 2007 to June 30, 2008</u>		

STATEWIDE

Summary

Mule deer are Idaho's most abundant and widely-distributed big game animal. They provide more recreational opportunity than any other big game species. Mule deer densities are highest in Idaho south of the Salmon River. North of Salmon River, white-tailed deer are the dominant deer species, but mule deer populations are found scattered throughout northern Idaho where there is suitable habitat.

Mule deer are primarily browsers, so most of their diet is composed of the leaves and twigs of shrubs and trees, particularly during winter. Grasses and forbs can be important dietary components at certain times of the year, such as spring and early summer.

Winter range is a critical component of mule deer habitat. Mule deer are susceptible to high mortality during periods of prolonged deep snow and low temperatures. Winter range has long been recognized as an important habitat component, but our ideas about it have changed as we have learned more about how deer use it. In the 1950s and 1960s, most of our emphasis was on the food resources on winter range. This was reflected in plantings of bitterbrush and measurements of utilization of browse plants. It was obvious that the food resources of winter range were important, but it could not account for all the variation observed in winter range use.

Even under the best conditions, deer lose weight all winter long. The best "winter range" a mule deer has is the fat stored in the body during spring, summer, and fall. Therefore, the condition of a deer at the start of winter depends on the quality of habitat it occupies during the rest of the year. The main strategy of a mule deer in winter is to survive by minimizing energy loss and by eating enough to prolong fat reserves. Deer commonly seek winter ranges where there is good thermal cover to minimize energy loss. Deer often become very sedentary during winter, moving and feeding as little as possible to conserve energy.

Our view of winter range has changed, but not its importance. Cover, aspect, and elevation are recognized as crucial components, and during certain times, are more important than food. Human disturbance of deer on winter ranges causes them to move from favored sites and waste

precious energy. The size of winter range is important to allow for different snow conditions and fluctuations in deer populations.

Much of Idaho's historic mule deer winter range has been developed for other uses and is now occupied by man. Ranches, farms, subdivisions, and industry located in the foothills and at lower elevations have eliminated winter range. In many parts of Idaho, deer winter range is adequate for the "average" winter, but when severe winters occur, deer are forced to low elevations where they come into conflict with humans. Deer can damage standing and stored crops; most commonly hay, ornamental shrubs, trees, and orchards. Depredations by mule deer can be severe and, in many cases, is an important factor in determining the optimum size of a deer population.

Early spring is an important time of year for mule deer, and spring range is a key component of year-round habitat. Most winter-related mortality actually occurs in early spring. Fawns and old bucks are most likely to die of winter stress. Mortality of does is usually light, but their condition is particularly critical because they are entering the third trimester of pregnancy and development of the fetus taxes their resources. The quality and quantity of nutritious forage in spring (Apr-Jul) has a major effect on production and survival of fawns. The timing of spring green-up is also important. A winter-stressed deer needs good forage as soon as possible. Cold, late spring weather with late green-up can increase mortality and reduce production.

Summer-fall ranges are obviously important because this is where deer produce fat reserves that will allow survival through winter. Quality of summer-fall forage directly influences pregnancy and ovulation rates and, therefore, fawn production. Late fall is the last opportunity for deer to forage and store fat before moving to winter range. High-quality fall range is important for bucks because their body reserves are reduced by rutting.

Many of Idaho's mule deer are migratory. They commonly travel long distances (20-100 miles) from summer range to winter range. Mule deer are fairly traditional and return to the same summer and winter ranges each year. Tagging and radio telemetry studies indicate that deer summering in the same area may go to different winter ranges, often in different game management units or different states. We have also found that deer wintering together can move to entirely different summer ranges. The migratory behavior of deer and the differential distribution of bucks and does complicate the measurement and interpretation of population parameters.

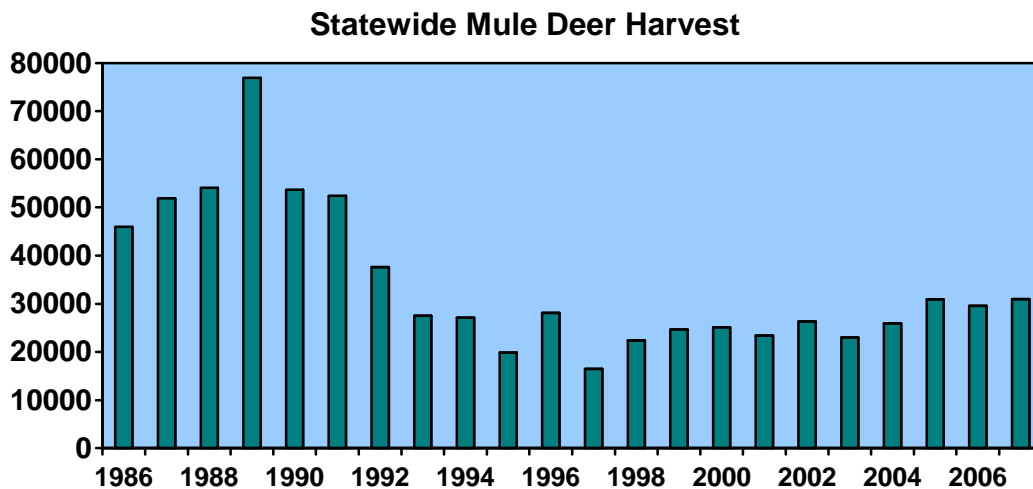
Given mule deer's fidelity for winter ranges, many of man's activities can disrupt or even eliminate migrations, forcing deer to winter on sub-optimal ranges that may increase their mortality rates. Interstate highways, deer-proof fences, and urbanization represent examples of activities that can disrupt migration patterns. Survival through winter is a tenuous balance between energy conservation and energy expenditure. Activities that increase energy expense likely increase over-winter mortality.

The structure of mule deer populations varies with habitat and population size. Populations at low density (below carrying capacity) tend to have high reproductive rates which allow for rapid

growth. Some populations stabilize at low density because they are susceptible to high mortality during unfavorable conditions. This is typical of populations in marginal habitat.

Populations at high density (near carrying capacity) tend to have low reproductive rates, and a stable age distribution. Population growth is slow, if it occurs at all. Annual production replaces annual mortality. This type of population is commonly found in stable, well-established habitat types, particularly climax forests. A wide spectrum of population structures is found between these two extremes.

Overall, mule deer populations statewide have declined since the 1950s and 1960s. It is unlikely that populations will ever increase to those levels again. Mule deer are best adapted to seral, transitional habitat types. Habitat succession is a continual and dynamic process, and those habitats best suited for mule deer cannot be expected to remain indefinitely or even be managed for on a large enough scale to have significant population effects. Recent population declines in parts of southern Idaho that were marked by the 1992-1993 winters are a natural process in mule deer dynamics. Populations are expected to increase given favorable environmental conditions. However, the long-term outlook for mule deer statewide is that of slowly-diminishing habitat quantity and quality over time. Maintaining healthy populations with harvestable surplus is expected and will continue; however, populations reminiscent of the “good-old-days” are unrealistic.



The effect of harvest mortality is highly variable in mule deer. Generally, the majority of annual mortality is not hunter-harvest related. Factors such as predation, malnourishment over winter, accidents, and disease are responsible for the majority of deaths in mule deer populations. Therefore, population response tends to be independent of harvest. Exceptions to this rule include antlerless opportunity designed to stabilize or reduce populations and effects of hunter harvest on buck survival and age structure. Hunting seasons designed to offer significantly more opportunity for antlered deer than antlerless deer, or during periods when bucks are vulnerable (rut, winter range), can reduce the proportion of bucks and particularly older bucks in the population. Buck-only seasons will not limit population growth; however, they can affect the

number of older bucks. The Idaho Fish and Game Commission (Commission) established a statewide minimum of 15 bucks per 100 does post-season, primarily as the minimum ratio that hunters would accept. It is unknown what the lower threshold value for buck:doe ratio is where negative impacts on production parameters can occur. However, we believe that the statewide minimum is above that necessary for adequate reproduction.

Proper harvest management for mule deer, given their relative independence to harvest effects, is to adequately monitor populations annually and be responsive to population changes. Liberal seasons can be applied during periods when populations are expanding rapidly and conservative seasons applied when environmental factors are limiting population growth.

This plan represents a statewide change in how we monitor mule deer populations. Historically, harvest parameters and periodic unit-wide surveys were conducted to assess population status. Beginning with this plan, we have established a statewide, uniform approach to monitor mule deer populations on an annual basis, thus being more responsive to population changes. The state has been divided into 22 analysis areas (groupings of Game Management Units) that represent similar habitats, discrete mule deer populations, and/or similar management objectives. With little exception, each analysis area will have at least one trend area (winter range) that will be monitored annually. Trend areas have been chosen to be representative of the analysis area as a whole, and should reflect population parameters throughout the grouping of units. Information that will be collected for each trend area includes buck:doe:fawn ratios and abundance. Additionally, radio-collared fawns in several of the trend areas across the state will be monitored to determine over-winter survival and recruitment to spring.

Antlerless harvest thresholds have been established for each of the trend areas (with few exceptions). These thresholds represent trend area population “goals.” We recognize that mule deer populations are primarily a function of the environment rather than any direct Department action. These threshold values have been established to define optimum populations taking into account habitat potential, winter range conditions, harvest opportunity, and depredation concerns. As mule deer populations rise and fall, we will recommend harvest opportunity consistent with these population thresholds.

In addition to monitoring trend area populations, the Department will monitor harvest and the percentage of 4+ points in the harvest relative to minimum criterion established by the Commission (Figure 1). Prior to 1998, the telephone harvest survey provided information for harvest. Beginning in 1998, a statewide mandatory report card system was implemented. Given adequate compliance, more precise data on harvest and antler point class will be available.

Antlerless Harvest

General season antlerless harvest is an option that may allow managers to influence deer numbers and provide added hunting opportunity when population levels allow. Determining whether to have antlerless seasons or the length of a season often results in controversy among hunters and between hunters and wildlife managers. To help reduce disagreement and guide decisions about antlerless harvest, the following decision model was developed. This model was

developed with the intent of an adaptive learning process; as new data become available and knowledge increases regarding deer population response to harvest, refinements will occur.

Three variables are considered in this decision model: population level relative to antlerless threshold values listed for each analysis area, animal physical condition, and winter severity. Population level is determined by annual aerial surveys of trend areas; animal condition is determined at Department check stations and/or through hunter interviews; and winter severity is determined by a severity index or fawn mortality if radio-collared animals are available. Each variable is given a relative score and then these scores are summed and the maximum season framework can then be determined.

This decision model is not designed to dictate when the Department will offer general antlerless opportunity; rather, it is intended to guide discussion amongst all of Idaho's mule deer enthusiasts. Additionally, depredation decisions and subsequent actions are not intended to be influenced by the decision model.

DECISION MODEL

	Variable Score		
Population Level	Below Threshold	At Threshold	Above Threshold
	-5	5	15
Animal Condition	Poor	Good	
	0	5	
Winter Severity	Severe, >60% Fawn Mortality	Average, 40-60% Fawn Mortality	Mild, <40% Fawn Mortality
	-5	5	10
TOTAL SCORE		SEASON FRAMEWORK	
<10		No Antlerless Harvest	
10		Controlled Harvest	
15		7 Days	
20		14 Days	

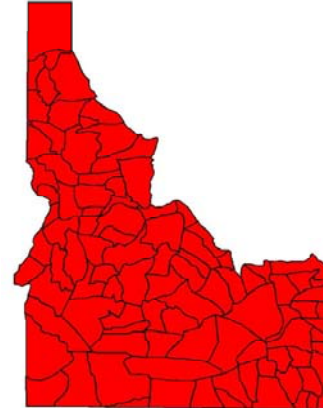
DECISION MODEL EXAMPLES:

- | | |
|---|--|
| <p>1) Antlerless Harvest Threshold Value = 2000
 Population Survey = 3000 deer observed
 Animal Condition = good
 Winter Severity = avg. 50% fawn mortality
 Total Score = 15 + 5 + 5 = 25
 Maximum Antlerless Framework = 21+ days</p> | <p>2) Antlerless Harvest Threshold Value = 2000
 Population Survey = 1500 deer observed
 Animal Condition = poor
 Winter Severity = severe, 75% fawn mortality
 Total Score = -5 + 0 + -5 = -10
 Maximum Antlerless Framework = 0 days</p> |
|---|--|

Mule Deer Status, Threshold, & Criterion Statewide

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Statewide	2006	89988	76600
Total		89988	76600



Buck Status & Minimum Criterion

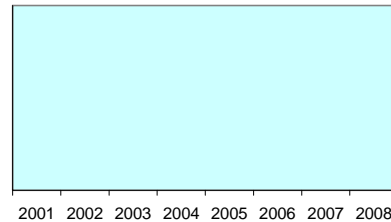
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2006	22	15
%4+ Pts in the Harvest	3-yr avg.	38	15

Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2001	2002	2003	2004	2005	2006	2007	2008
Statewide	NC	NC	NC	NC	NC	NC	NC	NC
Comparable Surveys Total	NC	NC	NC	NC	NC	NC	NC	NC

Note: NC = all surveys not comparable statewide.

Population Change Between Comparable Surveys

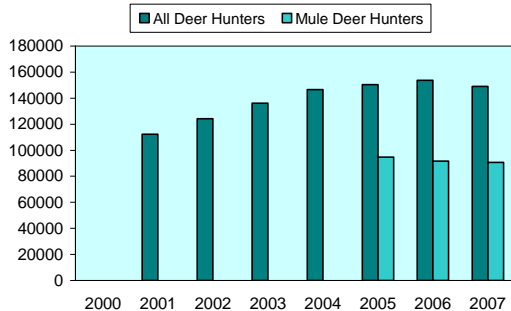
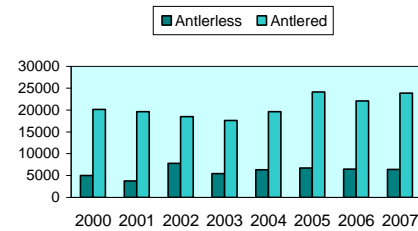


Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	5000	3800	7800	5463	6332	6746	6476	6405
Antlered Harvest	20100	19600	18500	17607	19605	24128	22084	23851
% 4+ Points	41	26	33	33	42	38	38	38
All Deer Hunters	ND	112320	124200	136200	146500	150400	153697	148918
Mule Deer Hunters	ND	ND	ND	ND	ND	94800	91644	90634

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

Harvest



% 4+ Points

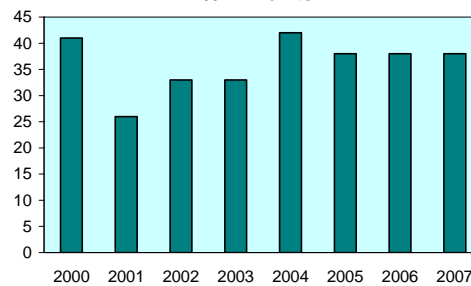


Figure 1. Mule Deer Analysis Statewide.

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Mule Deer Surveys and</u>
PROJECT:	<u>W-170-R-32</u>		<u>Inventories</u>
SUBPROJECT:	<u>1</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>1</u>		<u>Trends, Use, and Associated</u>
JOB:	<u>2</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 2007 to June 30, 2008</u>		

PANHANDLE REGION

Analysis Area 1 (Units 1, 2, 3, 4, 4A, 5, 6, 7, 9)

Management Objectives

Mule deer comprise less than 10% of the deer harvest in this unit. Aerial surveys are not practical because mule deer are scarce and hiding cover is abundant. Management objectives are therefore limited to harvest data. The objective for Analysis Area 1 is to maintain at least 30% four-point bucks in the harvest on a three-year, un-weighted running average (Figure 2). This management objective was easily met 2005-2007 with 54% four-point bucks.

Historical Perspective

U.S. Forest Service (USFS) records and the memories of long-term residents indicate big game, including mule deer, were relatively scarce in the early 1900s. Large-scale fires between 1910 and 1931 created large brush-fields favored by mule deer. This newly created habitat, in combination with a major predator reduction program beginning in the early 1920s, allowed sustained growth of mule deer, white-tailed deer, and elk populations. Despite a series of severe winters, mule deer populations continued to increase and by the mid-1950s, mule deer were estimated by USFS and Department biologists to outnumber white-tailed deer in the central part of the analysis area.

Concern about over-browsed winter ranges and an overabundance of deer throughout the state, in general, led to aggressive management to reduce the deer population. By the early 1970s, this goal was accomplished and shorter seasons were authorized. Deer seasons in Analysis Area 1 have traditionally allowed hunters to take either mule deer or white-tailed deer under the same tag; however, antlerless harvest is now restricted to white-tailed deer only.

Habitat Issues

Much of the land in Analysis Area 1 is administered by USFS, with private lands mostly restricted to the valley bottoms. Recreation and timber management are the dominant human uses of the landscape in these units. Analysis Area 1 is a generally moist region with nearly

continuous canopy coverage. Mule deer mix with white-tailed deer during winter, although there is a tendency for mule deer to winter at slightly higher elevations. Mule deer depredations are nonexistent.

Much of the mule deer habitat in this area is the result of large fires during the early 1900s with some habitat created when large areas were block clear-cut during the 1960s. Currently, both influences have little effect on the landscape, and mule deer habitat can be expected to decline in quantity and quality as succession progresses, turning brush-fields back into timber.

Biological Issues

There is very little known about the ecology of mule deer in the heavily forested environments typical of this analysis area. The timbered nature of the landscape, combined with the relative scarcity of mule deer concentrations, does not allow aerial surveys to be used to monitor mule deer populations in this area. The influence of hunting on mule deer population dynamics is believed to be minor, based on the minor influence of hunting measured on white-tailed deer populations in the same areas. The relatively high proportion of ≥ 4 -point bucks within the antlered harvest is consistent with this hypothesis.

Inter-specific Issues

White-tailed deer, mule deer, and elk have sympatric ranges throughout the year in Analysis Area 1. Mountain goat and moose distribution overlaps that of mule deer in some areas. The effects of inter-specific competition are unknown but are felt to be of minor consequence at existing population levels.

Predation Issues

Mountain lions, black bears, bobcats, and coyotes exist throughout the area. Wolves are increasing throughout Analysis Area 1 and grizzly bears exist in the northern portion and appear to be expanding. In the mid-1990s a major increase in the mountain lion population was detected, leading to increased public concern over the impacts of predation of future mule deer populations. High participation in mountain lion hunting led to record harvests during this period but has since declined. Current mountain lion numbers are assumed to be significantly lower than those found 10-15 years ago. Predation can be an important factor in the population dynamics of mule deer in this analysis area. Radio-telemetry studies conducted in the Priest River Basin during the late 1980s and early 1990s indicated this was the case with white-tailed deer. The impacts of other species, specifically wolves, are currently unknown.

Winter Feeding Issues

No emergency winter feeding has been undertaken since the 1996-1997 winter, when a small number of mule deer were fed, primarily in Game Management Unit 1. Data Analysis Unit (DAU) 1 experienced relatively mild winter conditions from 1997-2006. The most recent winter (2006-2007) had significantly more snowpack than average, up to 140% of normal in some areas. The early portion of the winter was normal but significant snows occurred after December

and there was an unusually long, cold, and wet spring. No winter feeding took place but some winter-related mortality did occur.

Information Requirements

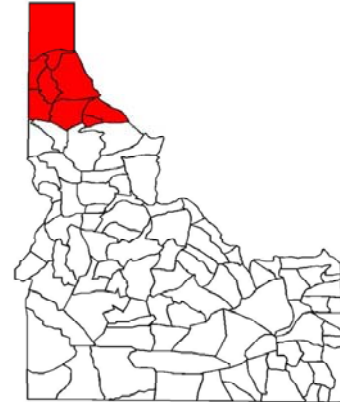
With the exception of check station information, the Department did not collect information specific to mule deer harvest in Analysis Area1 from 1979 to 1995. Hunter effort has only been documented since 1996. Good harvest data is of utmost importance here because aerial surveys are impractical due to heavy tree cover and small, scattered pockets of wintering mule deer. Basic ecological information is lacking on mule deer ecology in heavily timbered environments.

Mule Deer Analysis Area 1 (Units 1, 2, 3, 4, 4A, 5, 6, 7, 9)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
ND	ND	ND	NA
Total		ND	NA

Note: ND = no survey data available, NA = not applicable.



Buck Status & Minimum Criterion

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	ND	ND	NA
%4+ Pts in the Harvest	3-yr avg.	54	30

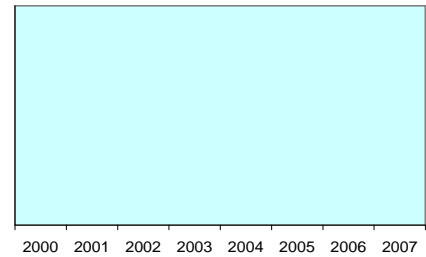
Note: ND = no survey data available, NA = not applicable.

Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
ND	ND	ND	ND	ND	ND	ND	ND	ND
Comparable Surveys Total	ND	ND	ND	ND	ND	ND	ND	ND

Note: ND = no survey data available.

Population Change Between Comparable Surveys

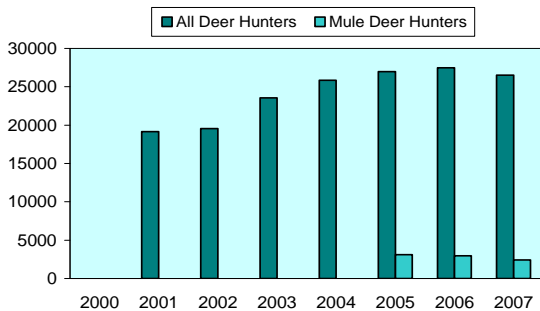
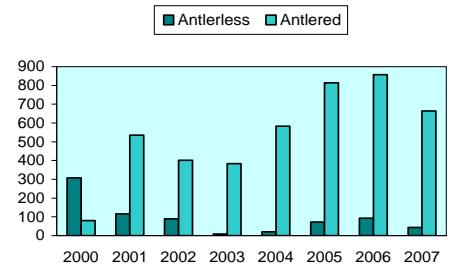


Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	308	116	90	9	20	72	93	43
Antlered Harvest	80	535	401	383	583	814	857	664
% 4+ Points	42	42	45	42	49	54	54	54
All Deer Hunters	ND	19140	19535	23566	25854	26963	27452	26520
Mule Deer Hunters	ND	ND	ND	ND	ND	3118	2955	2419

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

Harvest



% 4+ Points

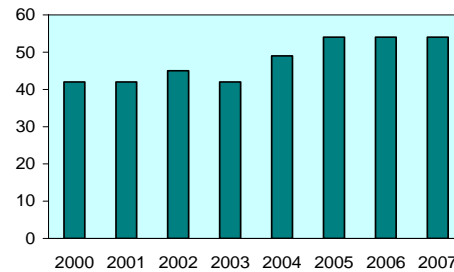


Figure 2. Mule Deer Analysis Area 1.

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SURVEYS AND INVENTORIES**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Mule Deer Surveys and</u>
PROJECT:	<u>W-170-R-32</u>		<u>Inventories</u>
SUBPROJECT:	<u>2</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>1</u>		<u>Trends, Use, and Associated</u>
JOB:	<u>2</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 2007 to June 30, 2008</u>		

CLEARWATER REGION

Analysis Area 2 (Units 8, 8A, 10, 10A, 12, 15, 16)

Management Objectives

Given the relative lack of good mule deer habitat, low mule deer populations, and priorities placed on white-tailed deer and elk, no population trend areas or antlerless harvest threshold levels will be established for Analysis Area 2 (Figure 3). The management objective will be limited to maintaining at least 30% four-point bucks in the harvest. This objective was easily exceeded during this reporting period with a three-year average of 58% of bucks harvested being ≥ 4 points.

Historical Perspective

Mule deer populations in this analysis area were historically low. Accounts from Lewis and Clark during the early 1800s suggested that very few animals were found throughout Clearwater River country. Populations probably did not change much until the large fires of the early 1900s that converted large expanses of unbroken forest into a mosaic of successional vegetation types. Populations probably peaked during the 1930s to 1950s as a result of new, high-quality habitat and lack of competition by other ungulates. As elk and white-tailed deer populations increased and habitat changes including succession, development, and loss of key winter ranges occurred, mule deer populations likely decreased. Information derived from estimates made by Department wildlife managers suggested mule deer populations declined from around 2,000 in 1960 to about 600 in 1990.

Historically, white-tailed deer and mule deer were managed as a “single species” with a single general season harvest framework for both species. In 1973, the Department began to offer some species-specific seasons in Clearwater Region. In 1998, the Clearwater Deer Tag was established to address concerns over trespass complaints. This season framework was continued through the 2004 season. Beginning in 2005, the Clearwater Deer Tag was modified slightly and renamed the White-tailed Deer Tag to provide more flexibility for Idaho hunters while maintaining protection against trespass problems. As part of this new approach, restrictions on

the Regular Deer Tag were relaxed, allowing it to again be used in the Clearwater Region through 3 November.

Habitat Issues

This analysis area varies from the highly productive Palouse Prairie to the timbered ridges and mountainous terrain of upper Clearwater River. In Units 8 and 8A, dry-land agriculture began in the 1880s. Currently, non-forested land is tilled and only small patches of perennial vegetation remain. Farmland in Units 8 and 8A has provided high-quality forage for deer. The flat terrain, low-elevation abundance of meadows, and high productivity of the land make Units 8 and 8A highly productive for wildlife. This can result in a high likelihood of conflict with humans.

Units 10, 10A, 12, 15, and 16 are predominately timbered with the majority of ownership being private timber companies, Idaho Department of Lands (IDL), or USFS. Most private ownership is at lower elevations along the breaks of Clearwater River. Timber harvest began in Unit 10A during the early 1900s and increased dramatically in the 1970s. In 1971, Dworshak Reservoir flooded approximately 45 miles of North Fork Clearwater River in Unit 10A and permanently removed thousands of acres of prime low-elevation big game winter range. Until the 1930s, wildfire was the primary habitat disturbance mechanism in Units 10, 12, and 16. Between 1900 and 1934, approximately 70% of the Lochsa River drainage was burned by wildfires. From the 1920s to 1990, thousands of miles of roads were built for timber harvest in Units 10A, 10, 12, 15, and 16. In 1964, most of the southern portion of Unit 12 was designated as part of the Selway-Bitterroot Wilderness.

Construction of new home sites has decreased available mule deer winter range. This analysis area is characterized by high road densities in the western portion and backcountry and limited access except for trails in the eastern portions. Noxious weeds such as yellowstar thistle and spotted knapweed are out-competing native vegetation on mule deer spring and winter ranges.

Depredations have been rare in this area due to low mule deer populations. Mule deer densities within agricultural areas of Analysis Area 2 have rarely exceeded landowner tolerance levels. Currently, there is little depredation concern involving mule deer in this analysis area.

Biological Issues

Although mule deer have never been numerous in this area, small populations do still exist where good, quality habitat is available. These units are managed mainly for elk and white-tailed deer populations. Since habitats within this analysis area have low potential for supporting substantial numbers of mule deer, management emphasis will be placed on maintaining populations.

Inter-specific Issues

A decline in cattle grazing and successive years of drought during the late 1980s and early 1990s may have contributed to rangeland changes. Intensive logging has created extensive brushy areas on winter ranges. These shifts in vegetation have resulted in increases in white-tailed deer

and elk populations, creating possible competition with mule deer. Current research at Starkey Experimental Station suggests that elk may displace mule deer.

Predation Issues

Mountain lion numbers increased in this analysis area during the early and mid-1990s, but more recently have leveled off and/or declined in most of these units. A likely reason for the initial increase was probably due to a dramatic increase in white-tailed deer numbers. Black bear numbers have remained relatively static throughout most of this area for the past decade. Coyote numbers remain high and may contribute to some fawn mortality. Increases in road densities during the past several decades have contributed to increased predator hunting opportunities. Wolves have established themselves in Units 10, 10A, 12, and 15 due to reintroduction efforts by USFWS and likely contribute to deer mortality.

Winter Feeding Issues

Emergency winter feeding of mule deer has not occurred in recent history in this analysis area.

Harvest

Total harvest in Analysis Area 2 units in 2007 was estimated at 224 mule deer based on harvest report cards. This represents a 15% decrease in harvest from 2006. Total deer hunter numbers in Analysis Area 2 were estimated at 20,734 with 914 hunters being identified as mule deer hunters. Harvest statistics for Analysis Area 2 units tend to fluctuate, probably due to low sample sizes for mule deer harvest and the fact that most hunters target whitetails.

Information Requirements

Harvest and aerial survey information for this analysis area are limited. Low mule deer numbers make it difficult to assess population levels with aerial surveys. Incidental mule deer observations will continue to be recorded during aerial surveys for elk. Improved harvest information may be the best way to assess population trends in this area. Prior to 1994, all harvest data was for mule deer and white-tailed deer combined. Future data collection efforts should continue to be separate for both deer species.

Mule Deer Analysis Area 2 (Units 8, 8A, 10, 10A, 12, 15, 16)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
None	ND	ND	NA
Total		ND	NA

Note: ND = no survey data available, NA = not applicable.



Buck Status & Minimum Criterion

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	ND	ND	NA
%4+ Pts in the Harvest	3-yr avg.	56	30

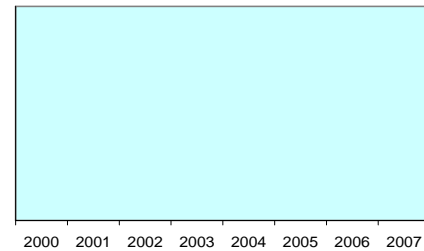
Note: ND = no survey data available, NA = not applicable.

Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
ND	ND	ND	ND	ND	ND	ND	ND	ND
Comparable Surveys Total	ND	ND	ND	ND	ND	ND	ND	ND

Note: ND = no survey data available.

Population Change Between Comparable Surveys

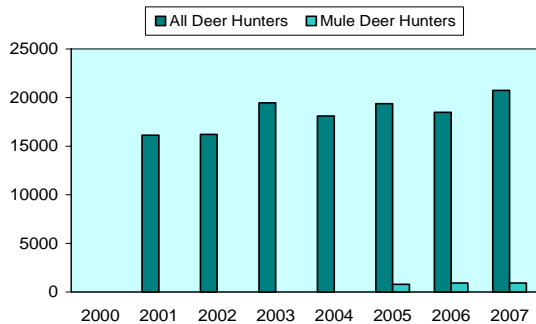
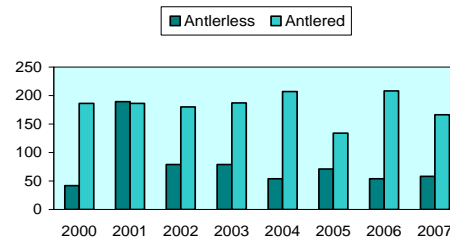


Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	42	189	79	79	54	71	54	58
Antlered Harvest	186	186	180	187	207	134	208	166
% 4+ Points	39	54	41	49	55	53	63	51
All Deer Hunters	ND	16133	16205	19439	18100	19361	18479	20734
Mule Deer Hunters	ND	ND	ND	ND	ND	809	929	914

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

Harvest



% 4+ Points

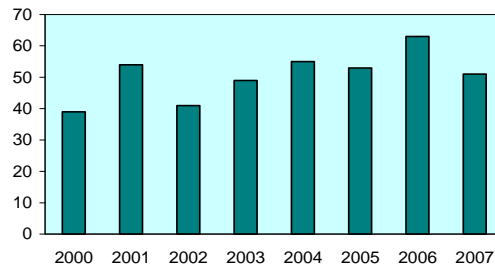


Figure 3. Mule Deer Analysis Area 2.

Analysis Area 3 (Units 11, 11A, 13, 14, 18, 23)

Management Objectives

Given the limited amount of aerial survey population information available for Analysis Area 3 (Figure 4), an antlerless harvest threshold has not been established. The current emphasis is to increase mule deer numbers and buck quality; therefore, the Department will recommend restrictive antlerless opportunity until improved population information is available. Antlered controlled hunts were established in 1998 in order to improve buck numbers and quality. An additional objective is to maintain at least 30% four-point bucks in the harvest. Management objectives have been met consistently in this analysis area in recent years. The most recent (2005) composition survey found 20 bucks:100 does and the buck harvest over the 2004-2006 period has averaged 61% being ≥ 4 -point.

Historical Perspective

Mule deer populations in this analysis area were historically low. Accounts from Lewis and Clark during the 1800s suggested that very few animals were found throughout Clearwater River country. Populations probably did not change much until the large fires of the early 1900s that converted large expanses of unbroken forest into a mosaic of successional vegetation types, and large numbers of domestic livestock altered grass-dominated habitats into greater amounts of shrub cover. Populations probably peaked during the 1930s-1960s as a result of new, high-quality habitat and lack of competition by other ungulates. As elk and white-tailed deer populations increased and habitat changes including succession, development, and loss of key winter ranges occurred, mule deer populations likely decreased. Information derived from estimates made by Department wildlife managers suggests mule deer numbers in this area declined from around 23,000 in 1960 to about 15,000 in 1990.

Historically, white-tailed deer and mule deer were managed as a “single species” with a single general season harvest framework for both species. In 1973, the Department began to offer some species-specific seasons in Clearwater Region. In 1998, the Clearwater Deer Tag was established to address concerns over trespass complaints. This season framework was continued through the 2004 season. Beginning in 2005, the Clearwater Deer Tag was modified slightly and renamed the White-tailed Deer Tag to provide more flexibility for Idaho hunters while maintaining protection against trespass problems. As part of this new approach, restrictions on the Regular Deer Tag were relaxed, allowing it to again be used in the Clearwater Region through 3 November.

Habitat Issues

Habitat productivity varies widely throughout the analysis area with steep, dry, river-canyon grasslands having low annual precipitation, to higher elevation forests having good habitat productivity and greater precipitation. Late successional forest cover types have become fragmented within the area. Various weeds and non-native grasses such as yellowstar thistle and cheatgrass have disturbed expansive acreages of grassland cover types in this analysis area. Road density is moderate and access is restricted in many areas. This results in medium to low

vulnerability of big game to hunters, especially within the Snake River and Salmon River canyons below White Bird.

Historically, sheep and cattle ranchers homesteaded the canyon lands in this analysis area, while farmers settled prairie land. Around the turn of the century, northern Unit 11 and the prairie land in Unit 11A was under intensive use for dry-land agriculture, and numerous orchards were planted in the Lewiston area. As settlement increased, the forested portions of the area were intensively logged, especially on private land. The forests were frequently high-graded, and existing forests still show the scars. In addition, intensive-grazing practices degraded many meadow areas and canyons, allowing invasion of noxious weed species, especially in drier areas.

This analysis area contains large tracts of both privately and publicly owned lands. Units 11 and 11A are mostly private land except for the Craig Mountain Wildlife Management Area (WMA) along the Snake and Salmon rivers. Most of Unit 13 has been under private ownership since settlement and is managed for agriculture and livestock. Historically, sheepherders ran their flocks in the canyons of Units 14, 18, and 23, and logging occurred in the forested areas of these units. Units 14 and 18 are two-thirds public lands with the remaining private land located at lower elevations along Salmon River. The majority of Hells Canyon Wilderness Area, designated in 1975, is in Unit 18. Unit 23 is mostly public land with some private land located at lower elevations along Little Salmon River.

Grazing by cattle is gradually decreasing in the analysis area due to reductions in USFS and Bureau of Land Management (BLM) allotments, along with land ownership shifting from private to public. Several large ranches remain in private ownership with limited access. Available mule deer winter range is being encroached upon by construction of summer homes and resorts along Snake and Salmon rivers.

Landowners registered enough complaints of mule deer causing damage to small grain, legume, and hay crops during the 1980s that a special mule deer season was developed in the Waha and Maloney Creek areas of Unit 11. This season helped reduce damage complaints, and the Maloney Creek portion of the hunt was eliminated in 1997 due to the decline of mule deer in southern Unit 11. This decline was also experienced in agricultural areas of Units 11A, 13, 14, 18, and 23. Landowner complaints in Unit 11A relate to damage caused to rapeseed, bluegrass, and winter wheat. Complaints in Units 13, 14, 18, and 23 involve damage to irrigated alfalfa, orchards, standing hay, and stored hay on agricultural land along the Salmon River breaks. Currently, there are only a few depredation concerns involving mule deer in Analysis Area 3. Since 1998, antlerless mule deer have increased in areas surrounding agricultural fields, especially in portions of Units 11A and 14.

During 2000, fire burned a large portion of Unit 11 along the Salmon and Snake rivers from Maloney Creek down to Dough Creek and all the way to the ridgeline in most places. This fire alteration on the landscape is just now being analyzed for impacts. Grasses and native vegetation are being replanted and many of the bulldozer lines recovered. Even so, it will be years before the shrub component fully recovers and decades before conifer regeneration provides thermal and hiding cover. During 2007, much of the Snake River face in Unit 11 was burned by wildfire.

That same year, wildfires in Unit 13 and 18 also burned wildlife habitat primarily on public lands.

Biological Issues

Poor productivity and declining mature buck numbers as reflected in decreasing fawn:doe:buck ratios, a decrease in total numbers, and a 50% decrease in harvest from the late 1980s to the mid-1990s resulted in concerns for the mule deer herds in these units. In 1992, aerial surveys in Units 14 and 18 indicated buck:doe ratios at 7:100 and 13:100, respectively. These concerns led to the implementation of antlered-only controlled hunts beginning in 1998 in Units 11, 11A, 13, 14, and 18.

A December 1999 sightability survey in Unit 14 resulted in an estimate of 2,622 mule deer with a buck:doe:fawn ratio of 18:100:50. Unit 14 was resurveyed in December 2004. The survey resulted in an estimate of 2,814 total mule deer with a buck:doe:fawn ratio of 34:100:61.

The White Bird trend area survey conducted in December 1999 indicated a total population of 1,725 mule deer. This represented a 26% decrease in total numbers from the same sub-units flown during the early 1990s. Subsequent White Bird trend area surveys conducted during the 2001-2002 and 2002-2003 winters indicated a stable population with increasing buck:doe (22:100 average) and fawn:doe (53:100 average) ratios. The survey conducted in 2003-2004 had similar buck:doe (23:100) and fawn:doe (47:100) ratios. However, the total estimate increased by 54% over the 2002-2003 count to 2,654 mule deer. It is likely that this increase can be attributed primarily to a change in deer distribution (due to a significant snowfall event just prior to the survey) rather than an increase in the deer population. The 2005 survey yielded results similar to pre-2004 levels with a total estimate of 1,937 and a buck:doe:fawn ratio of 20:100:63.

In 1990, controlled hunt permit numbers in Unit 11 were reduced significantly. Since then, fawn:doe:buck ratios have improved along with percent four-point bucks and total buck numbers. Due to declines in mule deer populations, Units 11A, 13, 14, and 18 were changed from general hunts to controlled hunts in 1998. Unit 11A was surveyed specifically for mule deer for the first time during winter 2003-2004. A total of 1,798 mule deer were estimated with a buck:doe:fawn ratio of 20:100:52.

The deer population in Unit 23 increased dramatically in the late 1980s but subsequently declined in the severe winter of 1992-1993; it appears to be increasing since then. General hunting opportunities have been maintained in Unit 23.

Inter-specific Issues

A decline in cattle grazing and successive years of drought during the late 1980s and early 1990s may have contributed to rangeland shifting from forbs to grasses. Intensive logging has created extensive brushy areas on winter ranges. These shifts in vegetation have resulted in increases in white-tailed deer and elk populations, creating competition with mule deer on both winter and summer ranges.

Predation Issues

Mountain lion harvest has increased slightly in this area during the past several decades and most likely reflects an increase in mountain lion numbers, which may be contributing to lower deer densities. Bear populations and harvest have remained relatively stable in this analysis area. The semi-arid climate and sparse timber limit the extent of highly productive bear foods in Units 11, 11A, 13, 14, and 18 and does not allow for bears to reach the densities they do in more timbered habitats such as Unit 23. However, due to extensive old homestead sites in these units, numerous fruit trees and shrubs were planted and remain in the areas today, providing excellent bear foods in autumn. Some of the largest bears in the state annually come from Unit 11. Bears are not thought to have an effect on deer recruitment in this analysis area. Wolves have not yet established themselves in this analysis area except in Units 14 and 18. They can be expected to establish more of a presence in the future.

Winter Feeding Issues

Emergency winter feeding of mule deer has not occurred in this analysis area in recent history.

Harvest

Total harvest in Analysis Area 3 in 2007 was estimated at 1,111 mule deer based on mandatory harvest report cards. This represents a 2% decrease in harvest from 2006 (1,130) and is nearly equal to the previous five-year average of 1,116. Total hunter numbers were estimated at 9,838 with 2,559 being identified as mule deer hunters.

Information Requirements

Harvest and aerial survey information for this analysis area are limited. Improved estimates are needed for yearly harvest data. Previous to 1994, all harvest data was for mule deer and white-tailed deer combined. Data should continue to be separated for both deer species. Initiation of controlled hunts in Units 11A, 13, 14, and 18 in 1998 is improving harvest information. Units 11 and 14 are the only units within this analysis area that have been flown for unit-wide winter range surveys since 1994. The aerial survey of White Bird trend area was first flown in December 1999. This survey has now been discontinued and has been replaced with the statewide mule deer monitoring protocol that calls for a sample of search units to be surveyed each year when possible.

Mule Deer Analysis Area 3 (Units 11, 11A, 13, 14, 18, 23)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
White Bird (13, 14, 18)	2005	1937	NA
Total		1937	NA

Note: NA = not applicable.



Buck Status & Minimum Criterion

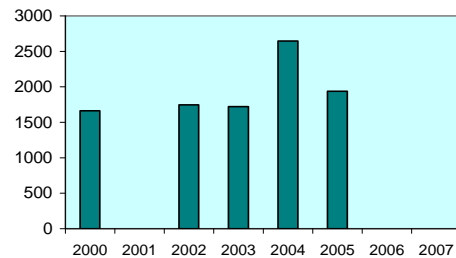
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2005	20	15
%4+ Pts in the Harvest	3-yr avg.	65	30

Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
White Bird (13, 14, 18)	1662	ND	1747	1722	2645	1937	ND	ND
Comparable Surveys Total	1662	ND	1747	1722	2645	1937	ND	ND

Note: ND = no survey data available.

Population Change Between Comparable Surveys



Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	93	277	395	94	229	177	236	230
Antlered Harvest	821	882	865	803	975	913	894	881
% 4+ Points	48	52	55	50	55	63	65	68
All Deer Hunters	ND	8375	3127	2726	8278	9087	9142	9838
Mule Deer Hunters	ND	ND	ND	ND	ND	2516	2380	2559

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

Harvest

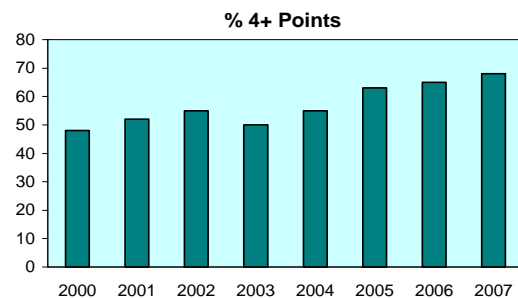
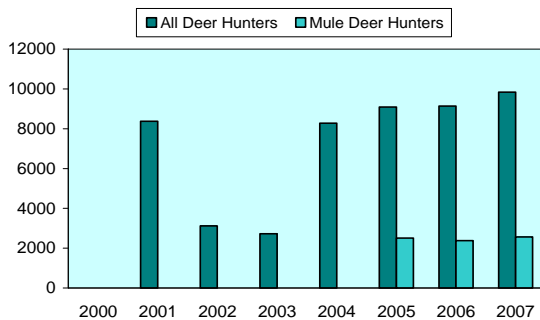
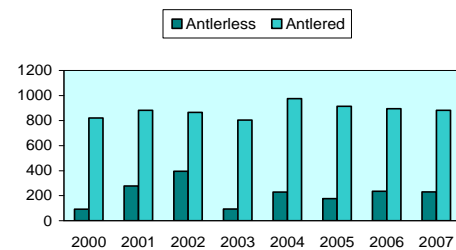


Figure 4. Mule Deer Analysis Area 3.

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Mule Deer Surveys and</u>
PROJECT:	<u>W-170-R-32</u>		<u>Inventories</u>
SUBPROJECT:	<u>3</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>1</u>		<u>Trends, Use, and Associated</u>
JOB:	<u>2</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 2007 to June 30, 2008</u>		

SOUTHWEST REGION

Analysis Area 6 (Units 22, 24, 31, 32, 32A, 33, 34, 35, 39)

Management Objectives

Objectives for Analysis Area 6 (Figure 5) are to maintain buck harvest above 30% ≥ 4 points and maintain buck:doe ratios from herd composition surveys above the statewide minimum of 15 bucks per 100 does. Antlerless harvest will be restricted when trend area deer populations are below threshold levels of 3,700 deer in Unit 22, 3,400 in Unit 31, 2,000 in Unit 33, and 20,000 in Unit 39. Conversely, liberal antlerless harvest will be encouraged when deer numbers exceed these threshold values. These values represent intermediate populations between current status and numbers observed during the late 1980s when deer populations were considered higher than could be supported during a normal winter and presented depredation concerns for agri-businesses.

Historical Perspective

These units represent the major deer units in Southwest Region. In the late 1800s, deer herds were reduced by extensive meat hunting throughout the area. Hunting was restricted in the early 1900s. The subsequent increase in deer herds led to large winter mortality in some areas, extensive winter feeding programs, and concern for the status of vegetation on deer winter range.

Over one-third of Idaho's population lives near these big game units. These units provide deer hunting opportunity, but that opportunity has to be closely regulated to prevent over-harvest. This is particularly true for does throughout the area and for bucks in the open sagebrush habitats where they are more vulnerable.

Habitat Issues

The habitats range from the Snake River breaks to sagebrush ranges in the Payette and Weiser River drainage to the Sawtooth Mountain Range. The majority of mule deer summer on land administered by USFS. Mule deer typically spend summers in forest habitats and move to lower sagebrush/grass ranges during winter. Low-elevation winter ranges consist of more private land

than summer ranges. Logging, grazing, and fires have substantially affected the condition of these ranges. Logging activity has increased shrub fields and provided increased forage for mule deer. The effect of fire on summer ranges has been positive, improving forage conditions for deer. Conversely, effects of fire on low-elevation winter ranges have been more negative. In many cases, fires have reduced important shrub species such as bitterbrush and sagebrush that deer are dependent on during winter. However, cooler spring fires maintain these important shrub species. The proliferation of noxious weeds poses a threat to mule deer winter range.

In the Boise area, expansion of home developments onto mule deer winter range has been a significant problem. This urban development is impacting wintering areas of one-third of the mule deer herd in Unit 39.

Biological Issues

Population performance in this area is closely associated with winter severity and body condition of deer when entering the winter period. Buck harvest parameters were above 30% 4+ points in 2007. Aerial survey information indicates buck:doe ratios were below 15:100 in most units during winter 2007-2008.

Inter-specific Issues

Elk densities are currently high throughout most of the area. These high elk densities may be limiting the ability of the area to support mule deer. There are some white-tailed deer in Units 22, 24, 32, 32A, and 33. White-tailed deer populations do not seem to be expanding their distribution. Intensive livestock grazing is present on much of the range. Competition among species is largely unknown.

Predation Issues

Bobcats, coyotes, mountain lions, and black bears occur throughout the analysis area. Additionally, in recent years the presence of wolves has been documented in all units in Analysis Area 6. Multiple wolf packs occupy Units 24, 33, 34, 35, and 39. The impact of these large predators on mule deer is largely unknown but under investigation.

Winter Feeding Issues

Winter feeding has been fairly common in these units. In the Garden Valley area (Unit 33), winter feeding occurs about two out of five years. During winter 2007-2008 winter feeding occurred during most of February and March in Garden Valley. In other areas (Boise Front and the Weiser/Brownlee Reservoir areas), extensive winter feeding occurs less often, the most recent being winter 1992-1993.

Information Requirements

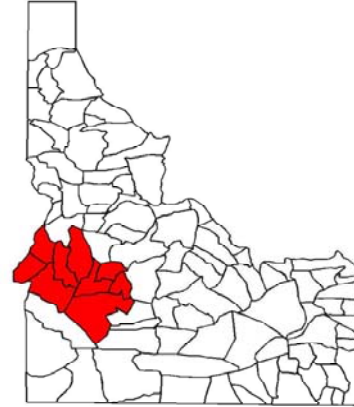
The large area in these units necessitates several trend areas. These trend areas need to be surveyed on an annual basis to determine the status of the herd. There is little information on

herd composition in many of these units. This data collection effort needs to be increased. Information on inter-specific competition is also needed.

Mule Deer Analysis Area 6 (Units 22, 24, 31, 32, 32A, 33, 34, 35, 39)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
(22)	2006	4809	3700
(31)	2004	3834	3400
Garden Valley (33)	2004	1546	2000
Boise Front (39)	2005	26520	20000
Total		36709	29100



Buck Status & Minimum Criterion

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio (22)	2007	10	15
(32A)	2007	10	15
	2007	12	15
Boise Front (39)	2007	11	15
%4+ Pts in the Harvest	3-yr avg.	30	30

Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
(22)	4091	4318	3725	3193	4295	ND	4809	ND
(31)	3826	4450	3732	3207	3834	ND	ND	ND
Garden Valley (33)	ND	ND	ND	ND	1546	ND	ND	ND
Boise Front (39)	ND	23861	ND	27800	ND	26520	ND	ND
Comparable Surveys Total	0	23861	0	27800	0	26520	0	0

Note: ND = no survey data available. Only the Boise Front Trend Area numbers appear in the Population Change chart.

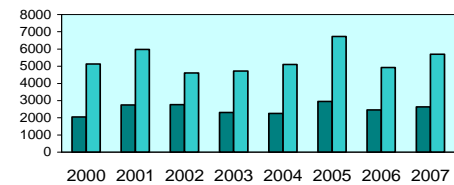
Population Change*

Between Comparable Surveys



Harvest

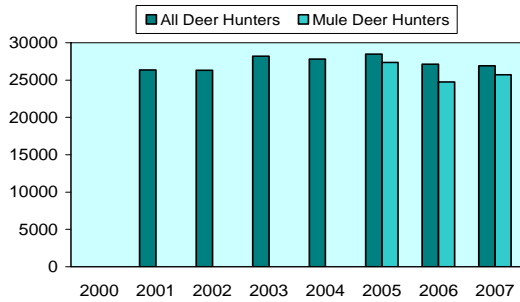
■ Antlerless ■ Antlered



Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	2045	2746	2764	2317	2256	2951	2455	2638
Antlered Harvest	5127	5970	4611	4714	5109	6726	4917	5703
% 4+ Points	25	21	21	21	32	29	28	32
All Deer Hunters	ND	26365	26322	28216	27821	28483	27120	26919
Mule Deer Hunters	ND	ND	ND	ND	ND	27373	24754	25711

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.



% 4+ Points

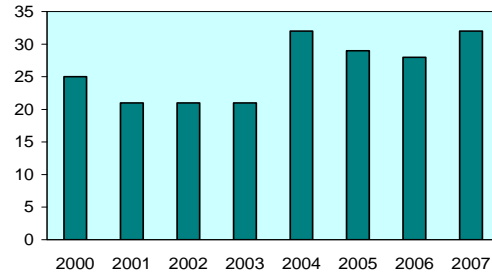


Figure 5. Mule deer Analysis Area 6.

Analysis Area 11 (Unit 38)

Management Objectives

The objective for Analysis Area 11 (Figure 6) is to maintain the deer population at or below its current level. The area is not likely to become a major deer hunting destination. With limited sportsman's desire for hunting in this unit, minimizing agricultural depredation is the major goal.

Historical Perspective

This unit contains the irrigated farmland and orchards in the Treasure Valley. There is some high desert habitat in the Snake River Birds of Prey area. The majority of the deer are associated with the Boise, Snake, and Payette River corridors and nearby orchards and vineyards. With the density of residences and developed agricultural properties in the area, big game hunters have been restricted to short-range weapons. The portion of Unit 32 in the Emmett Valley has similar characteristics to Unit 38 and is managed under the same management goals.

Relatively few hunters specifically plan their deer hunts for Unit 38. Most deer are harvested incidentally to upland bird or waterfowl hunting. The current season (Appendix A) is either-sex, short-range weapons only for 44 days. The harvest has remained around 200 deer.

Habitat Issues

The majority of land is in private ownership. Deer depredation complaints are common in this unit due to high value crops produced by agriculture. Depredation hunts and kill permits are used on a regular basis in this area.

Biological Issues

The agricultural nature of this unit provides excellent habitat for good deer production. However, good deer production is not desired in this unit due to depredation concerns. Deer populations in this unit are managed with liberal seasons to maintain low densities.

Inter-specific Issues

Mule deer are the primary species in the unit. White-tailed deer were reintroduced onto the C.J. Strike and Fort Boise WMAs in the 1980s. Whitetails are well established and contribute to some depredation problems.

Predation Issues

Coyotes, bobcats, domestic dogs, and some mountain lions are the significant large predators in this area. There are no wolves or black bears in the area. The impact of predators on deer is largely unknown but does not present a major management issue.

Winter Feeding Issues

Winter feeding has not been required in this area because of the mild climate in the Treasure Valley.

Information Requirements

This area will not be managed to provide a significant amount of deer hunting opportunity. The primary need for deer management in this area are techniques to limit damage to agricultural crops in an economically realistic way.

Mule Deer Analysis Area 11 (Unit 38)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
ND	ND	ND	NA
Total		ND	NA

Note: ND = no survey data available, NA = not applicable.

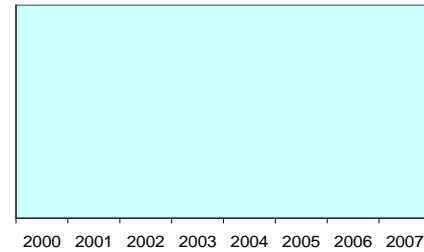


Buck Status & Minimum Criterion

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	ND	ND	NA
%4+ Pts in the Harvest	3-yr avg.	21	25

Note: ND = no survey data available, NA = not applicable.

Population Change Between Comparable Surveys

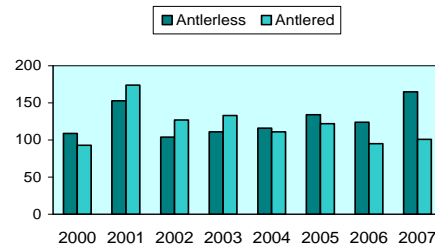


Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
ND	ND	ND	ND	ND	ND	ND	ND	ND
Comparable Surveys Total	ND	ND	ND	ND	ND	ND	ND	ND

Note: ND = no survey data available.

Harvest



Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	109	153	104	111	116	134	124	165
Antlered Harvest	93	174	127	133	111	122	95	101
% 4+ Points	22	20	24	20	19	16	21	26
All Deer Hunters	ND	1304	1068	1224	875	864	830	993
Mule Deer Hunters	ND	ND	ND	ND	ND	845	792	908

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

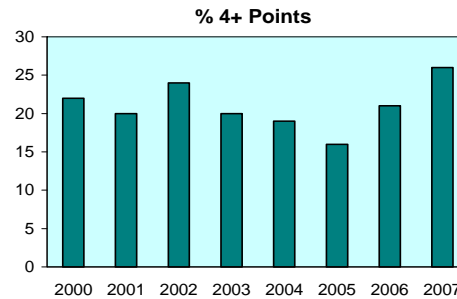
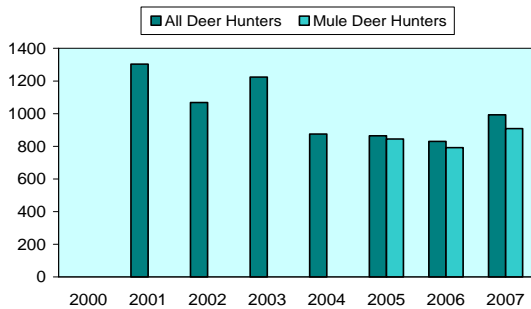


Figure 6. Mule deer Analysis Area 11.

Analysis Area 12 (Units 40, 41, 42, 46, 47)

Management Objectives

Post-season buck:doe ratios for Analysis Area 12 (Figure 7) will be maintained at a minimum of 25 bucks per 100 does and the percent 4+ points in the harvest will be maintained at no less than 35%. The lack of trend area surveys makes it difficult to set measurable population objectives for this area. Usually, the level of depredation complaints is the key indicator of the need to consider antlerless harvest.

Historical Perspective

Units 40, 41, 42, and 47 have traditionally supported substantial deer herds and provided hunting opportunity for southern Idaho hunters. Unit 46 has never supported a large resident deer herd, but nonetheless has provided important general hunting opportunity. During the 1930s and 1940s, deer populations were low and hunting opportunities were very limited in these units. By the 1950s and 1960s, deer numbers had increased to very high levels and depredation complaints were common. Deer seasons were liberalized and, in some years, extended to mid-December. Hunters who ventured into Owyhee County could take their pick of “a deer behind every bush.” In 1955, an either-sex deer hunt with a two-deer bag limit was authorized in parts of Area 12 and 5,500 deer were harvested. Liberal hunting seasons continued into the early 1970s when an area-wide decline in deer populations resulted in more conservative hunting seasons. During the 1980s, harvest averaged 1,500 bucks and a few hundred does per year. Since 1991, hunters have been restricted to taking two-point or smaller bucks during the general season in Units 40, 41, and 42. Unit 47 has been managed with controlled hunts since 1970, and general antlered-only seasons have been maintained in Unit 46. All Analysis Area 12 units have controlled hunts for any buck in November.

These deer herds use habitat in Oregon, Nevada, and Idaho. An unknown portion of the deer herd in western Owyhee County migrates to Oregon during winter. On the eastern side of Owyhee County, substantial numbers of deer migrate north from Nevada to winter in Idaho. This interstate mixing of deer populations makes evaluation of the status of Idaho’s herd very difficult.

Habitat Issues

About 90% of the land area is in public ownership. The BLM manages the majority of the area, and IDL administers smaller segments. The area is primarily high-desert habitat dominated by sagebrush-grass and juniper cover types. Isolated mountain ranges and foothill areas include mixed mountain shrub and aspen types.

There have been several major changes in mule deer habitat over the last 30 years. Fires have destroyed large portions of winter ranges in Units 41 and 46. Burned areas have been reseeded with crested wheatgrass or have been invaded by cheatgrass and have little browse to support wintering deer. In recent years, fire rehabilitation efforts have included sagebrush in areas where deer habitat was a concern. In Unit 42, there has been a substantial encroachment of juniper into

former summer and winter ranges. In several areas where juniper has replaced more important browse species, the number of wintering deer has been reduced from several thousand to a few hundred deer.

Biological Issues

Very little mule deer aerial survey data exists for this analysis area.

Inter-specific Issues

Currently, elk populations are relatively small in this area. There are approximately 200 resident elk east of Highway 51 and about 500-600 elk on the west side of Owyhee County. At its present population level, this elk herd does not constitute a significant management concern for mule deer.

Livestock grazing is and has been the predominant land use in the area. In the early part of the twentieth century, excessive grazing by livestock combined with fire suppression severely altered plant communities to favor shrubs, and mule deer benefited. Extensive areas have burned during the past several decades and much of the sagebrush steppe was reseeded to crested wheatgrass or was invaded by cheatgrass. The reestablishment of sagebrush to benefit deer may conflict with livestock grazing interests in some areas. Livestock numbers are currently significantly less than during the early part of the twentieth century. Serious conflicts are localized rather than widespread on winter ranges and critical riparian areas.

Predation Issues

Coyotes, bobcats, and mountain lions are the large predators in this area. There are no wolves or black bears in the area.

Winter Feeding Issues

The remoteness of winter deer herds has limited the demand for and the ability to conduct supplemental winter feeding. No winter feeding has occurred for many years in these units. The Department will work with the Regional Winter Feeding Advisory Committee to discourage unsanctioned winter feeding and to identify any situations where feeding may be appropriate.

Information Requirements

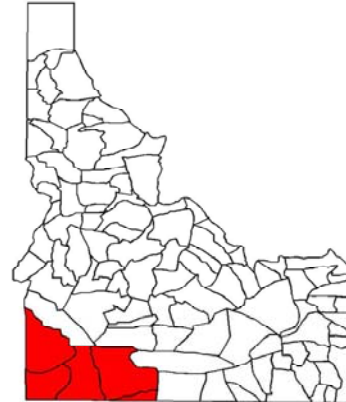
The primary data need for these units is population information. Winter ranges contain some mixture of deer from Oregon/Idaho or Nevada/Idaho. Herds can be surveyed in winter, but status of these wintering animals needs to be allocated to the appropriate hunting season herds. This lack of population information on these important deer herds has been a concern to managers and will be addressed in the near future.

Mule Deer Analysis Area 12 (Units 40, 41, 42, 46, 47)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
ND	ND	ND	NA
Total		ND	NA

Note: ND = no survey data available, NA = not applicable.

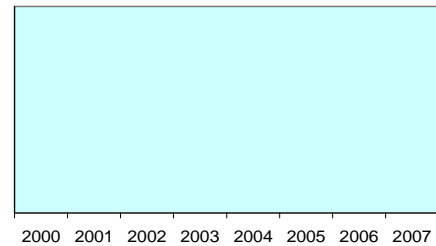


Buck Status & Minimum Criterion

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	ND	ND	25
%4+ Pts in the Harvest	3-yr avg.	23	35

Note: ND = no survey data available.

Population Change Between Comparable Surveys



Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
ND	ND	ND	ND	ND	ND	ND	ND	ND
Comparable Surveys Total	ND	ND	ND	ND	ND	ND	ND	ND

Note: ND = no survey data available.

Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	48	146	149	27	208	200	261	106
Antlered Harvest	1247	1196	1199	1195	1251	1559	1679	1442
% 4+ Points	19	21	21	18	49	22	19	29
All Deer Hunters	ND	3935	4260	4038	4546	4432	4814	4942
Mule Deer Hunters	ND	ND	ND	ND	ND	4318	4443	4797

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters. General hunts in units 40, 41, 42 are for 2-point bucks only.

Harvest

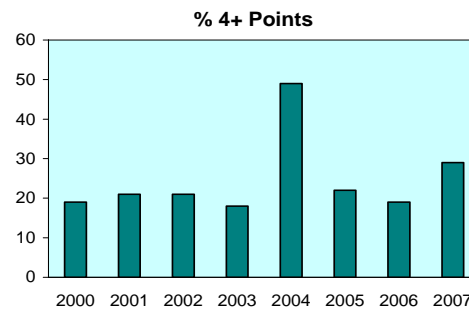
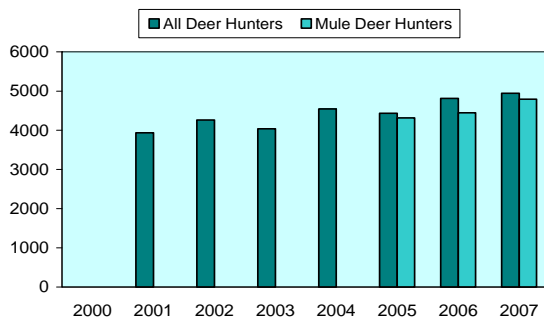
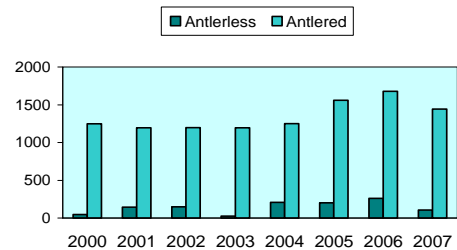


Figure 7. Mule deer Analysis Area 12.

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Mule Deer Surveys and</u>
PROJECT:	<u>W-170-R-32</u>		<u>Inventories</u>
SUBPROJECT:	<u>4</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>1</u>		<u>Trends, Use, and Associated</u>
JOB:	<u>2</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 2007 to June 30, 2008</u>		

MAGIC VALLEY REGION

Analysis Area 7 (Units 43, 44, 45, 48, 52)

Management Objectives

An objective for Analysis Area 7 (Figure 8) is to restrict antlerless harvest when trend area populations are less than 5,000 deer; conversely, antlerless harvest will be considered when deer numbers exceed this threshold value. Additionally, deer populations will be managed to maintain or exceed 20 bucks per 100 does in the pre-winter population and >45% bucks with four-point or larger antlers in the October harvest.

Historical Perspective

During the late 1800s and early 1900s, mule deer populations in Analysis Area 7 were reduced to very low levels by unregulated harvest. Miners, market hunters, and other inhabitants of the area relied heavily on deer and elk meat. Mule deer habitat was also greatly altered during this period by excessive livestock use. Dense shrub fields dominated by sagebrush and bitterbrush, replaced plant communities dominated by grasses. This pronounced change in habitat combined with restrictions on deer hunting prompted increases in deer numbers. Hunting seasons were closed or very conservative through 1940. At that time, winter ranges were considered to be over-browsed and in a downward trend, and hunting seasons were designed to reduce deer numbers. Deer numbers remained strong through the 1950s and 1960s. Following a significant decline in numbers during the mid-1970s, deer populations increased again during the late 1980s, a period of prolonged drought conditions and mild winters. During winter 1992-1993, deer populations declined by approximately 50%. Deer had entered the winter in poor physiological condition and high over-winter mortality of fawns and bucks occurred. Since 1993, deer numbers have increased in this area but remain below the population levels of the late 1980s and early 1990s.

Harvest management includes both general (Units 43 and 48) and controlled (Units 44, 45, and 52) hunting seasons. The controlled hunts are very popular with sportsmen desiring quality, high hunter success, low hunter density, and the opportunity to observe many deer. The Bennett Hills (Unit 45) has had controlled hunting seasons since 1972 and has the most highly sought-after mule deer permits in Idaho. In 2008, drawing odds for the 75-permit October buck hunt

was 3.3%. After the 1993 decline, liberal antlerless hunts were maintained in Units 43, 44, and 45 to slow deer population growth and allow recovery of deteriorated winter ranges in Unit 45. Presently, antlerless harvest is used to maintain about 8,000 deer in the King Hill trend area. At this population level, which is less than the maximum biological carrying capacity, depredations are minimal, winter range use is appropriate, and reproductive performance is higher than many other southern Idaho deer herds.

Units 45 and 52 provide most of the winter habitat for deer in this analysis area. Important winter ranges include: Black Butte Hills (Unit 52), Picabo Hills (Unit 52), and the Bennett Hills front from the Bliss-Hill City Road to Teapot Dome (Unit 45).

Habitat Issues

This analysis area encompasses about 5,487 mi² of which 24% is managed by USFS, 49% by BLM, 5% by IDL, and 22% is private land.

Most of Unit 52 and the southern portion of Unit 45 is primarily arid semi-desert dominated by sagebrush-grass. The Mount Bennett Hills of the northern portion of Unit 45 is a low range of mountains or high plateaus consisting of sagebrush-grass and mixed mountain shrub communities with small pockets of aspen and Douglas fir on northern exposures and more mesic sites. Units 43, 44, and 48 include the Soldier, Boulder, and Smoky Mountains. Mountain shrub and mountain big sagebrush communities are common on south-facing exposures while northern exposures are timbered.

Grazing by cattle and domestic sheep is the primary land use on public and private lands. Conflicts tend to be localized rather than widespread and include excessive use of forage on winter ranges and riparian area degradation.

Overall habitat security for deer during hunting season is good in Units 43 and 48. Seasonal road closures implemented primarily for elk security also benefit mule deer. Cover is relatively open and road densities are higher in Units 44, 45, and 52, necessitating controlled hunts to maintain the desired buck age structure.

Motorized access to Bennett Hills winter ranges is presently unregulated and may be affecting deer use of available habitat. Motorized use can displace deer from preferred areas and can cause deer to expend critical energy reserves needed to survive the winter and produce healthy fawns.

Important habitat issues include: 1) Succession, and in some cases heavy livestock use, has caused a general decline in the health of aspen communities. Many stands have become decadent and/or are being replaced by conifers. 2) Winter ranges, primarily in Units 45 and 52 are considered to be limiting mule deer in this analysis area. Winter ranges are predominately sagebrush-grass and generally do not have a strong bitterbrush component. Much of the winter habitat has been used heavily by deer and livestock for many years and is considered in poor condition in many areas. Medusahead rye has invaded winter ranges following fires and is considered a serious concern to the long-term health of habitat. The prevalence of cheatgrass has

also increased in deer winter habitats following fire and/or prolonged heavy grazing pressures that have depleted other understory species. Rehabilitation and protection of these very critical winter ranges will require careful long-term planning that will maintain adequate browse for wintering deer and improve understory vegetation. Conservation easements and/or acquisition of private lands in strategic locations would also help increase or maintain winter carrying capacity for deer. 3) Timber harvest and consequent road-building activities continue in portions of Unit 43. Access management will continue to be an important issue for deer and elk management. Increased access frequently leads to more conservative and restricted hunting season frameworks. 4) Private interests own or control access to important summer and fall habitats in Units 44 and 45. This has been a subject of much concern by hunters unable to gain access to areas they wish to hunt. 5) Depredation problems can become acute during severe winters in the King Hill/Bliss areas of Unit 45. Private land used for growing crops and pasturing livestock occurs along the lower perimeter of deer winter range.

On Camas Prairie (Units 44 and 45), summer depredation problems on growing alfalfa are common during drought years. Twelve depredation problems involving mule deer were received during the reporting period (10 in Unit 45 and two in Unit 52).

Biological Issues

Prior to the decline in deer in 1993, deer populations exceeded winter range carrying capacity and damage to private property was extreme in some years. The short-term management goal has been to maintain deer populations lower than 1988-1992 levels using antlerless harvest. Despite relatively liberal antlerless harvest, the estimated population in the King Hill trend area increased by 80% from 1994 to 1999. From 2000-2007, trend area deer numbers were stable and averaged 7,684 deer.

A complete aerial survey of winter ranges in Analysis Area 7 was conducted during 6-14 February 2008 to obtain a total mule deer population estimate. The estimated population was $10,700 \pm 201$ deer (90% bound). Within the King Hill trend area, there were an estimated 6,938 deer; 65% of the total. To provide data comparable to past trend area surveys that are typically conducted during green-up in mid-March, data were corrected to account for mortality of fawns and adult does resulting in mid-March estimate of 5,728 deer in the trend area. This estimate represents a 22% decline in trend area deer numbers from the 2007 level (Figure 8).

Herd composition survey data suggest a decline in reproductive performance measured in December from 85 fawns:100 does (1973-1992) to 66 fawns:100 does (1993-2007). In December 2008, a ratio of 64 fawns:100 does was observed ($n = 1,464$). Observed recruitment rates since 1991 have ranged from 21% in 1993 to 42% in 1996 and have averaged 32%, sufficient to allow modest population increases. During winter 2007-2008, estimated overwinter fawn survival was only 25% and doe survival was 94%. The estimated recruitment rate in 2008 was only 22%. Antlerless permits for 2008 hunting seasons were reduced by 48% from 2,500 to 1,300 to allow for herd growth.

Buck to doe ratios are currently at 41 bucks:100 does, well above the objective of 20 bucks: 100 does (Figure 8).

Inter-specific Issues

The analysis area supports a substantial population of elk, moose, pronghorn, and at higher elevations, mountain goats. The relationship between deer and elk is presently unclear but in 2008 nearly 1,000 elk were observed during the February deer survey and an overlap in winter use areas was noted. On the Bennett Hills Front deer winter ranges, mule deer will maintain management priority over elk if there are competitive concerns during winter. Most of the pronghorn population from the Camas Prairie and northern portion of Unit 52 migrate to Bennett Hills Front winter ranges and co-occupy winter habitat with mule deer. Mule deer and pronghorn will receive equal management consideration on these winter ranges.

Cattle and domestic sheep have imposed the major forage demand in this analysis area since the 1870s. Excessive use by cattle and domestic sheep severely damaged soil and vegetation in the late 1800s and early 1900s. Today, livestock use has been reduced to less than 15% of historic use and competitive concerns remain but tend to be more localized.

Predation Issues

Mountain lions, coyotes, black bears, bobcats, and wolves are potential predators on mule deer in the analysis area. In recent years, mountain lion populations are believed to have decreased slightly. Coyote numbers are believed to have increased in the past 30 years; however, they are subject to unregulated hunting and periodic control activities by USDA Wildlife Services. Black bear numbers have increased slightly in recent years but densities are considered relatively low. Wolves inhabit the analysis area and are subject to frequent control actions because of depredations on domestic sheep. Elk are the major prey item taken by wolves. Wolf predation is not considered an important mortality factor in the deer here. Because the management objective has been to slow the rate of increase in this deer herd, any effects that predators may have had on deer population dynamics is considered inconsequential.

Winter Feeding Issues

Supplemental winter feeding of deer has not occurred in the past few years and is not considered an important issue in this analysis area.

Information Requirements

In 2008 new population monitoring protocol was implemented. Instead of annual green-up counts of deer within the King Hill trend area, complete surveys will be conducted every 4-5 years to provide estimates of the total deer population. Samples of radioed fawns and does will be monitored annually to provide survival estimates. Pre- and post-winter herd composition surveys will be conducted to monitor over-winter fawn mortality, recruitment rate, and the buck to doe ratio.

The Bennett Hills Front has some of the highest wintering deer densities in Idaho and winters a high proportion of the mule deer in Magic Valley Region. There is a need for improved monitoring of winter range condition and trend.

Antler shed hunting has become very popular on Bennett Hills winter ranges. There is concern that shed-antler hunters using motorized vehicles to travel cross-country are causing increased energy expenditures by deer during late winter and early spring when energy reserves are lowest.

Mule Deer Analysis Area 7 (Units 43, 44, 45, 48, 52)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
King Hill (45)	2008	5728	5000
Total		5728	5000



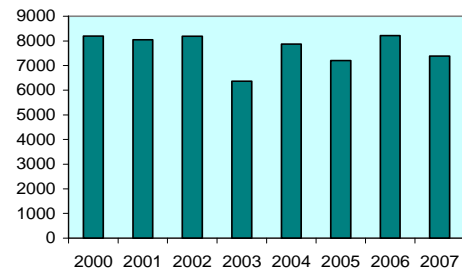
Buck Status & Minimum Criterion

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2006	31	20
%4+ Pts in the Harvest	3-yr avg.	45	45

Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
King Hill (45)	8198	8042	8195	6360	7878	7206	8214	7380
Comparable Surveys Total	8198	8042	8195	6360	7878	7206	8214	7380

Population Change Between Comparable Surveys

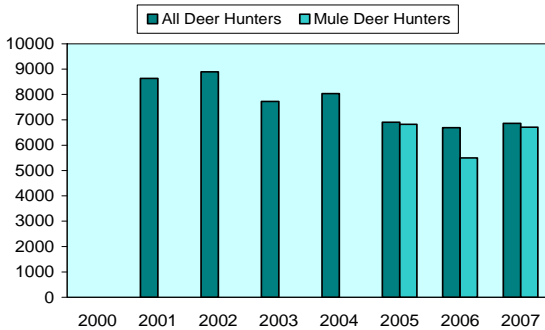
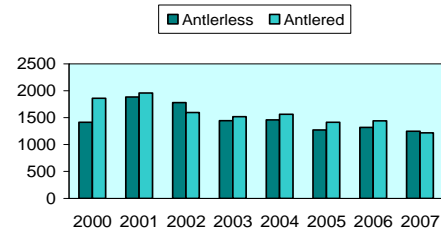


Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	1415	1886	1780	1446	1459	1271	1317	1250
Antlered Harvest	1861	1961	1598	1519	1563	1413	1439	1217
% 4+ Points	48	40	45	43	41	44	46	46
All Deer Hunters	ND	8630	8894	7725	8034	6906	6693	6860
Mule Deer Hunters	ND	ND	ND	ND	ND	6823	5495	6703

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

Harvest



% 4+ Points

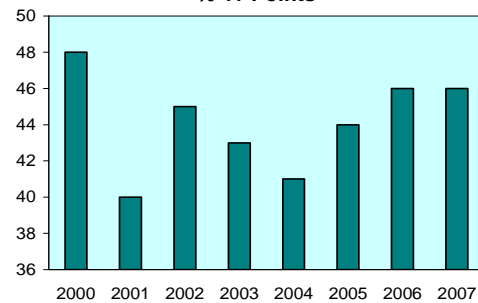


Figure 8. Mule deer Analysis Area 7.

Analysis Area 13 (Unit 53)

Management Objectives

The objective for Analysis Area 13 (Figure 9) is to maintain a small resident population of mule deer compatible with the area's agriculture. Current hunting season frameworks appear to be accomplishing this objective. Given the limited priority placed on managing for mule deer, no trend area will be established.

Historical Perspective

It has been reported that mule deer were relatively abundant in Unit 53 around 1900. However, deer habitat was substantially altered with human settlement, which brought an increase in range fires and the development of large-scale irrigation projects. Today, more than half of Unit 53 is irrigated farmland. The northern portion of the unit contains an extensive tract of land managed by BLM, primarily for livestock grazing. Much of BLM lands have been reseeded to crested wheatgrass, reducing their value for mule deer.

Unit 53 currently has a small resident deer population and cannot support many deer without unacceptable conflicts with agriculture. Depredation complaints from orchards in the Snake River Canyon are common. Unit 53 has some importance as winter range for mule deer from units to the north. Movement of deer into Unit 53 during winter was first noted in the early 1980s following extensive fires and loss of sagebrush habitat in Unit 52A. The number of wintering deer varies considerably depending on winter severity and snow depths. During winter 1985-1986, more than 3,000 mule deer moved into Unit 53 and resulted in 54 depredation complaints. During the severe winter of 2001-2002, large numbers of deer moved into Unit 53, primarily east of Jerome, and resulted in a substantial number of deer-vehicle collisions on Interstate 84.

Harvest management is currently designed to keep resident deer numbers low. Short-range weapon hunting on the west side of the unit has been successful in minimizing complaints from orchard owners. On the east side of the unit, a long archery season from 30 Aug. through 19 Dec. allows a substantial amount of hunting opportunity close to the Region's population centers. In 2001, the state record archery-harvested mule deer buck was taken in Unit 53.

Habitat Issues

Lands administered by BLM provide important winter habitat, especially during severe winters when large numbers of deer are present. Because of the potential for considerable depredation problems on private lands, BLM lands have added value for wintering deer. Sagebrush restoration on burned areas is needed to provide habitat during those severe winters that large numbers of deer move into Unit 53.

Two depredation complaints involving mule deer were received during the reporting period.

Biological Issues

No population monitoring is conducted in this unit.

Inter-specific Issues

There are no competitive concerns with the few elk and pronghorn that occur in Unit 53. Heavy livestock use in some areas has the potential to be a problem in those winters when large numbers of mule deer move into Unit 53.

Predation Issues

Coyotes are the only important predators of deer present in substantial numbers. A few mountain lions inhabit the unit primarily in the Snake River Canyon. Predation is not a major issue because the objective is to maintain only a small resident deer population and large numbers of wintering deer occur in the unit infrequently.

Winter Feeding Issues

Winter feeding was conducted during the 1985-1986 winter in an attempt to help reduce winter losses and keep deer away from roads where collisions with vehicles were common. The Department will work closely with the Regional Winter Feeding Advisory Committee to evaluate any future supplemental feeding issues.

Information Requirements

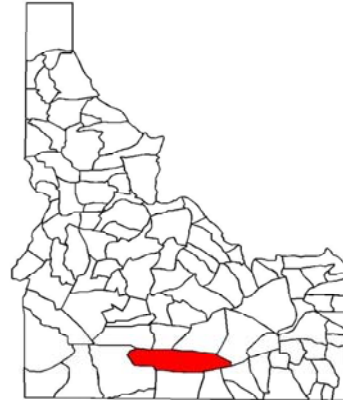
None.

Mule Deer Analysis Area 13 (Unit 53)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
ND	ND	ND	NA
Total		ND	NA

Note: ND = no survey data available, NA = not applicable.

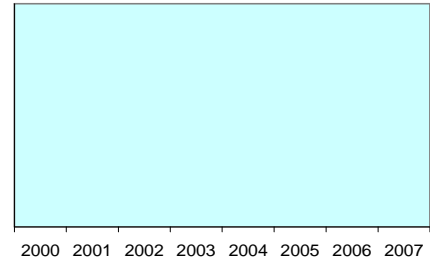


Buck Status & Minimum Criterion

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	ND	ND	NA
%4+ Pts in the Harvest	3-yr avg.	38	15

Note: ND = no survey data available, NA = not applicable.

Population Change Between Comparable Surveys



Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
ND	ND	ND	ND	ND	ND	ND	ND	ND
Comparable Surveys Total	ND	ND	ND	ND	ND	ND	ND	ND

Note: ND = no survey data available.

Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	40	95	44	43	51	67	30	40
Antlered Harvest	52	109	72	82	73	106	89	114
% 4+ Points	37	41	42	42	32	21	51	41
All Deer Hunters	ND	863	725	742	698	716	679	646
Mule Deer Hunters	ND	ND	ND	ND	ND	709	666	613

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

Harvest

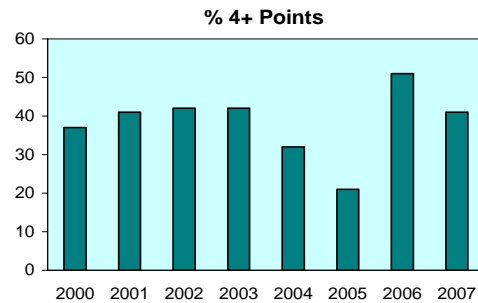
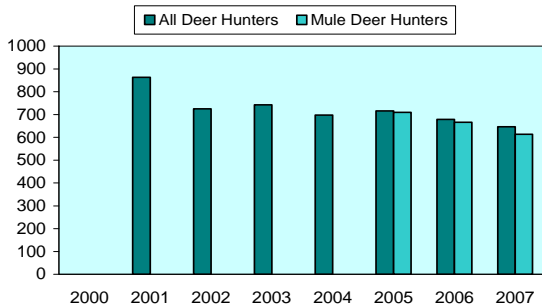
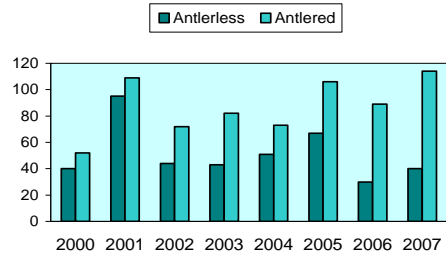


Figure 9. Mule deer Analysis Area 13.

Analysis Area 14 (Units 54, 55, 57)

Management Objectives

The objective for Analysis Area 14 (Figure 10) is to restrict antlerless harvest when trend area populations are less than 3,200 deer; conversely, antlerless harvest will be considered when deer numbers exceed this threshold value. This value represents an intermediate population size between current status and numbers observed during the late 1980s and early 1990s when deer populations were considered higher than could be sustained with existing habitat conditions and depredation levels. Deer populations will be managed to maintain or exceed 25 bucks per 100 does in the pre-winter population and >35% bucks with four-point or larger antlers in the October harvest.

Historical Perspective

During the early 1900s, mule deer populations in Analysis Area 14 were very low, due in part to unregulated harvest. During the late 1800s and early 1900s, heavy use by domestic livestock greatly altered deer habitat. Shrub fields dominated by sagebrush and bitterbrush, replaced plant communities once dominated by grasses. This change in habitat set the stage for dramatic increases in deer numbers. Closed hunting seasons from 1909-1935 and very conservative seasons through 1940 helped allow deer populations to increase. By 1950, deer numbers had reached an estimated 20,000 head in Unit 54 and winter ranges were considered severely over-browsed. Efforts were made to reduce deer populations with both general and controlled season frameworks. Following a significant decline in numbers during the mid-1970s, deer populations increased again during the late 1980s, a period of prolonged drought conditions and mild winters. During winter 1992-1993, deer populations declined by an estimated 35-40%. Deer had entered the winter in poor physiological condition and high over-winter fawn and buck mortality occurred. After the 1993 winter die-off, deer populations in this analysis area continued to decline through 1997 and remained relatively stable from 1997-2003. Trend area surveys suggest that deer numbers increased substantially in 2004-2007 compared to 1997-2003 levels.

Since 1970, this area has been managed exclusively with controlled firearm seasons. These units are very popular with sportsmen desiring quality, high hunter success, low hunter density, and the opportunity to observe many deer. Following the 1993 population decline, antlerless-only hunts were eliminated. Presently (2007), a 100-permit antlerless hunt in Unit 55 and a 400-permit youth either-sex hunt allows a very small harvest of antlerless deer.

Segments of the deer populations exhibit interstate movements. In Units 54 and 55, there are migrations south to winter ranges in Nevada and Utah, respectively. Harvest management in Utah and Nevada has been compatible with the Department's management objectives. Important winter ranges in this analysis area are: Eightmile (Unit 57), Jim Sage (Unit 55), Willow Creek (Unit 55), Dry Creek (Unit 54), and Sugarloaf (Unit 54).

Habitat Issues

This analysis area is characterized by isolated mountain ranges surrounded by farmland and sagebrush-grass semi-desert. At low to mid elevations, juniper woodlands are common with mixed mountain shrub and aspen communities occurring along riparian areas and on some north- and east-facing slopes. At higher elevations, pockets of conifers (lodgepole pine, Douglas fir, and subalpine fir) and aspen occur on north- and east-facing aspects and more mesic sites. Primarily, USFS and BLM manage important summer and winter habitats. When deer populations are high, depredation complaints on growing alfalfa are common in Unit 55.

Important habitat issues include: 1) succession, and in some cases heavy livestock use, has caused a general decline in the health of aspen communities. Many stands have become decadent and/or are being replaced by conifers. Where the vigor and size of aspen communities can be improved, prescribed fire should be considered. 2) the quality and quantity of winter habitat is considered to be limiting mule deer in this analysis area. During the past 30 years, fire has altered much of the critical habitat in Unit 54. The loss of extensive bitterbrush stands on the Dry Creek, Sugarloaf, and Buckbrush Flat winter ranges is expected to have long-term negative effects on deer populations. While sagebrush is beginning to reestablish on some of these winter ranges, bitterbrush recovery has been slow or nonexistent. In Unit 55, the distribution and density of juniper has increased on some winter ranges, replacing important browse for wintering deer. Management should favor the reestablishment and long-term maintenance of shrubs on winter ranges. Bitterbrush plantings should be undertaken in areas where natural recovery is not evident. In some areas, carefully designed projects to remove junipers by burning or chaining may have long-term benefits for mule deer. 3) because of the open nature of the habitat and high road densities in some areas, habitat security for deer during hunting season is considered moderate, although some high security areas exist in all units. Road densities are considered high in Unit 54 and moderate in Units 55 and 57. Several motorized vehicle area closures have been implemented in Unit 54 to provide additional security habitat and non-motorized hunting opportunity. Additional motorized vehicle restrictions may be recommended to maintain quality hunting opportunity and desired buck age structures in Unit 54.

Four depredation complaints involving mule deer were received in Unit 55 during the reporting period.

Biological Issues

Following the 1993 decline in deer numbers, trend area counts remained relatively low through 2003 and averaged 2,355 deer. Beginning in 2004, populations increased and the from 2004-2007 trend area counts averaged 4,036 deer. Trend areas in Units 54 and 55 were not surveyed during the 2007-2008 reporting period.

A complete survey was conducted in Unit 57 during 15-17 February 2008. The total wintering population was estimated to be $1,357 \pm 141$ deer (90% bound).

Fawns ($n = 18$) and does ($n = 27$) were radio-monitored during the 2007-2008 winter to provide estimates of survival. Fawn survival during winter 2007-2008 was 39%; lower than the 1999-2007 mean of 66%. Estimated survival of adult does was 93%.

Pre-winter composition data indicate a loss of reproductive performance in these deer herd prior to winter. From 1974-1992, a pre-winter ratio averaged 83 fawns per 100 does compared to 63 fawns per 100 does from 1993-2005. Observed buck to doe ratios in the analysis area are near the objective of 25 bucks per 100 does (Figure 10).

Inter-specific Issues

Elk, black bear, and bighorn sheep were eliminated from these units during the late 1800s and early 1900s. Today, a small elk population exists in Unit 54 and a few resident elk occur in Unit 57. There are currently (2007) no competitive concerns with deer and elk. A small population of California bighorn sheep inhabits the northeast portion of the Sawtooth National Forest in Unit 54 but poses no concern with mule deer management.

Livestock have imposed the major forage demand throughout these units for over a century. Currently, on public lands, livestock management is generally compatible with deer habitat management, although heavy livestock use in some localized areas has negative effects. In the past, conversion of large areas from native sagebrush/grass communities to crested wheatgrass seeding has had negative effects on deer habitat.

Predation Issues

Mountain lions, coyotes, and bobcats are potential predators on mule deer in the analysis area. Mountain lion populations increased markedly in these units, presumably in response to the high deer populations in the late 1980s and early 1990s. Mountain lion harvest doubled, depredations on domestic sheep increased, and the frequency of reported mountain lion observations rose substantially. While the relationship between deer and mountain lions is unclear, mountain lions may have played a role in slowing the recovery in deer herds. There are recent indications from mountain lion hunters and researchers that mountain lion populations have declined, probably in response to the reduced mule deer prey base. Coyote numbers are believed to have increased in the past 30 years; however, they are subject to unregulated hunting and periodic control activities by USDA Wildlife Services. The effect, if any, of coyote predation on mule deer population dynamics is unknown.

Winter Feeding Issues

Supplemental winter feeding of deer has not occurred in the past few years and is not considered an important issue in this analysis area.

Information Requirements

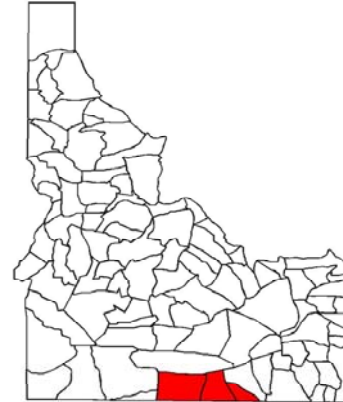
Periodic sightability surveys are needed to provide reliable data for population modeling and to monitor changes in winter distribution.

A better understanding of the relationship between road densities and buck survival during hunting season would improve our ability to make sound decisions about access and harvest management.

Mule Deer Analysis Area 14 (Units 54, 55, 57)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Sugarloaf (54)	2007	1711	1400
Dry Creek (54)	2007	1024	1000
Jim Sage (55)	2007	1054	800
Total		3789	3200



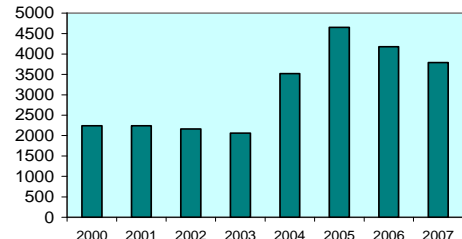
Buck Status & Minimum Criterion

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2006	25	25
%4+ Pts in the Harvest	3-yr avg.	46	35

Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
Sugarloaf (54)	737	742	685	662	1030	1171	1109	1711
Dry Creek (54)	480	564	548	471	988	856	ND	1024
Jim Sage (55)	1022	935	929	927	1504	2625	3073	1054
Comparable Surveys Total	2239	2241	2162	2060	3522	4652	4182	3789

Population Change Between Comparable Surveys

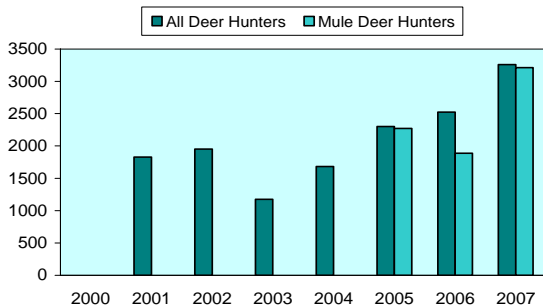
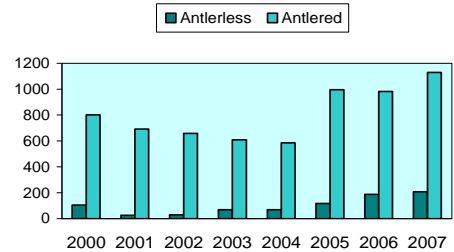


Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	104	26	29	70	69	117	187	207
Antlered Harvest	802	692	658	609	586	996	981	1129
% 4+ Points	40	40	40	34	47	42	48	49
All Deer Hunters	ND	1828	1953	1174	1683	2299	2527	3259
Mule Deer Hunters	ND	ND	ND	ND	ND	2273	1886	3214

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

Harvest



% 4+ Points

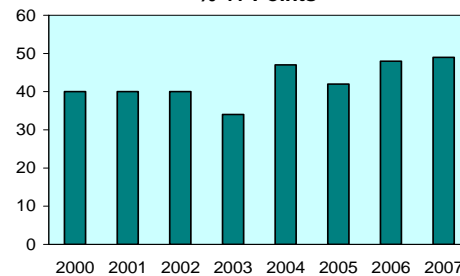


Figure 10. Mule deer Analysis Area 14.

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Mule Deer Surveys and</u>
PROJECT:	<u>W-170-R-32</u>		<u>Inventories</u>
SUBPROJECT:	<u>5</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>1</u>		<u>Trends, Use, and Associated</u>
JOB:	<u>2</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 2007 to June 30, 2008</u>		

SOUTHEAST REGION

Analysis Area 20 (Units 56, 70, 73, 73A)

Management Objectives

Objectives for Analysis Area 20 (Figure 11) include restricting antlerless harvest when trend area populations are less than 5,700 deer; managed antlerless harvest will be encouraged when deer numbers exceed this threshold value. This value represents an intermediate population size between current status and numbers observed during the late 1980s and early 1990s when deer populations were considered higher than could be supported during a normal winter and presented depredation concerns for agricultural producers. Additional objectives include maintenance of greater than 15 bucks:100 does post-season and a minimum of 30% 4+ points in the harvest.

Historical Perspective

The mule deer population in Analysis Area 20 has fluctuated widely since the mid-1800s. Deer numbers probably declined through the early 1900s, possibly due to unregulated harvest. By 1920, observations of deer were quite rare. Between 1920 and the early 1970s, deer numbers increased dramatically, interrupted briefly by significant winter mortality. Following a significant decline in numbers beginning in 1972, numbers again increased until the late 1980s. The population level attained during this second peak probably did not reach that attained during the 1950s to early 1970s. Overall, mule deer numbers in these units appear to be highly volatile with wide fluctuations over relatively short time periods.

Harvest management during the 1950s and 1960s was designed to maintain or reduce deer numbers in response to what was considered over-browsed winter ranges. Season frameworks in these units (Appendix A) have varied considerably more than elsewhere in southeastern Idaho. General seasons have been the rule, except in Unit 56, which had controlled hunts from 1970-1981. Season lengths have varied from three days to five weeks. Either-sex opportunity has ranged from none to extra antlerless-only tags available in 1989 and 1990 for Units 70, 73, and 73A. Following the winter of 1992-1993, when significant winter mortality occurred, harvest management has been conservative.

Research in the mid-1980s found very low survival of bucks in Unit 73. A two-point only regulation, with short periods of any buck hunting, was enacted there in 1997 after the buck:doe ratio fell below 10:100. Hunter numbers decreased for several years, proportions of older bucks increased somewhat, until harvest of older bucks returned to earlier levels. In 2004, a four-point or greater regulation was enacted in Units 70 and 73 in response to public suggestions. The four-point or greater regulation was still in place for units 70 and 73 for the 2007 season and now has a buck:doe ratio of 32:100. The regulation will remain in unit 73 for a few more years to properly monitor its effects and public support. Unit 70 was removed from the four-point regulation and placed in a controlled hunt with 175 permits from 10-31 October for the 2008 deer season.

Major wintering areas in this analysis area are: Pauline (Unit 70), Lead Draw to Walker Creek (Unit 70), Elkhorn Mountain (Unit 73), Malad Face (Unit 73), Samaria Mountain (Unit 73), Hansel Mountains (Unit 73), Rockland Valley (Unit 73A), Knox Canyon (Unit 73A), Juniper (Unit 56), the Hagler Canyon complex (Unit 56), and Sweetzer Pass (Unit 56).

Habitat Issues

This analysis area represents the least productive habitats in southeastern Idaho. Low productive habitats combined with variable winter conditions undoubtedly cause mule deer numbers to vary considerably over time. Three main vegetation types predominate: sagebrush-grassland, aspen, and conifer. Other variations of these three main types that are important to deer include mixed shrub communities, Utah juniper, and curlleaf mahogany. The current mix of vegetation cover types is a result of intensive grazing by livestock during the early 1900s and ongoing fire suppression efforts. These factors converted what was predominately perennial grass stands into shrublands with depleted or sparse understories. Given that current livestock grazing practices are much more conservative and designed to promote grass, and that the current shrublands are aging, it is believed that the quality of mule deer habitat probably peaked earlier in the twentieth century. The current conversion of aspen to conifer and replacement of mixed shrub and sagebrush communities by juniper probably will reduce habitat suitability for mule deer.

Approximately 41% of the land in this analysis area is publicly owned. BLM and USFS administer the majority of public land. Fort Hall Indian Reservation makes up approximately 7%, while the remaining 52% is private. Private land is predominately used for rangeland pasture, small grains, and hay production. A substantial amount of private land has been enrolled in the Conservation Reserve Program (CRP). Depredation complaints are generally limited to periods of high deer populations. Predominant land uses of the publicly-owned ground include livestock grazing, timber management, and recreation. Of particular concern is the encroachment of human activity, either intense recreational efforts and/or structural developments, in mule deer winter range. Developments from the west side of Pocatello south to Walker Creek in Unit 70 have reduced the potential wintering area for deer.

Open habitat types combined with moderate to high road densities and, in some areas unrestricted ATV travel result in a greater vulnerability of mule deer in this analysis area. Use of motorized vehicles for hunting is prohibited. Other than hunting, motorized travel on the Caribou National Forest within this area is restricted to designated routes during the snow-free

period of the year with the specific purpose of reducing impacts to wildlife habitat and reducing wildlife disturbance.

Biological Issues

Recruitment rates, as evidenced by December/January fawn:doe ratios, have ranged from 50 to 75:100 over the past few winters. It is believed that 66 fawns:100 does is adequate to maintain populations with normal winter mortality, while increased recruitment is necessary for population growth. Conversely, recruitment rates less than 66:100 are generally consistent with stable to declining populations.

Inter-specific Issues

Although livestock graze much of the mule deer range in this analysis area, interactions of concern are relatively few and tend to be limited to localized areas. Of primary concern are livestock winter feedlot operations that concentrate deer during winter. Of minor concern are a few localized areas (riparian and winter range) of intense livestock pressure.

The current trend of elk occupying mule deer winter range is a major concern. Some winter range in this analysis area do not lend themselves to niche separation by the two species and, therefore, either direct resource competition and/or social intolerance will likely impact mule deer numbers. The Department will seek opportunities to minimize the occupancy by elk in key mule deer winter ranges.

Residential, recreational, and associated development has impacted available deer winter ranges, particularly in Unit 70. These impacts have likely had direct effects on numbers of deer and will be impossible to mitigate. Continued growth of human populations will necessitate the acknowledgment of impacts to wildlife habitat and populations.

Predation Issues

Major predators of mule deer in this analysis area include mountain lions, coyotes, and bobcats. Mountain lion and coyote populations may have increased during the last 30 years. It is unknown specifically what impact these changing predator systems are having on mule deer population dynamics, although a multi-year investigation of the impact of manipulating predator populations indicated small affects.

Winter Feeding Issues

Emergency supplemental feeding of deer occurs periodically; however, these units generally have milder winter conditions than elsewhere in southeastern Idaho. In many cases, emergency feeding is initiated after deer have been attracted to cattle feedlot operations or private citizens began feeding deer early in winter. Both of these circumstances could short-stop deer from reaching more suitable winter range and generally result in high over-winter mortality rates. The Department, working in conjunction with the Winter Feeding Advisory Committee, will

discourage livestock operators and other private citizens from encouraging deer use of non-traditional food sources.

Mule deer were provided supplemental winter feed at a Department-sanctioned, Commission-approved feed site east of Stone (Unit 56) during 12 of 15 winters between 1974-1988. An estimated 500-1,400 deer were fed annually. The feeding was initiated following the construction of Interstate 84 that blocked the traditional migration of deer from Unit 56 to winter ranges on the south end of Black Pine Mountain (Unit 57) and the east end of the Raft River range in Utah. In the early 1950s, it was estimated that more than 4,000 deer from Unit 56 made the migration. During the open winters associated with the prolonged drought of the late 1980s, deer did not concentrate near the state line for several consecutive years, and the feeding operation was permanently closed down. Unit 56 will be managed for the number of deer that can be supported on winter ranges without an annual winter feeding effort.

Private citizens, with and without Department assistance, have provided supplemental winter food for approximately 500 deer in several areas in Unit 73 for the past 3-5 years.

Information Requirements

The Department will explore various means of better quantifying over-winter mortality so that harvest recommendations are more responsive to changing populations.

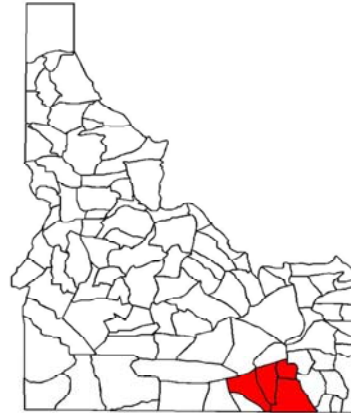
Recent observed recruitment rates are consistent with either stable or slightly declining populations. A better understanding of factors affecting recruitment rates is needed.

Although habitat succession and change are occurring, it is unknown what specific impacts will occur to deer populations. Furthermore, it is unknown whether the aging of current mule deer habitat leads to ultimately less productive and nutritious vegetation.

Mule Deer Analysis Area 20 (Units 56, 70, 73, 73A)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Heglar (56)	2006	1773	1800
Elkhorn (73)	2006	1126	1200
Malad Face (73)	2006	817	1200
Rockland (73A)	2006	1852	1500
Total		5568	5700



Buck Status & Minimum Criterion

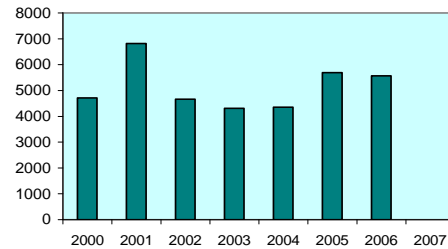
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2006	23	15
%4+ Pts in the Harvest	3-yr avg.	57	30

Note: Unit 56 has a minimum buck:doe ratio criterion of 25.

Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
Heglar (56)	1318	1710	1133	700	1101	1357	1773	1081
Elkhorn (73)	980	1387	749	1163	1401	2079	1126	ND
Malad Face (73)	885	1622	761	717	729	1090	817	ND
Rockland (73A)	1533	2100	2016	1734	1121	1168	1852	ND
Comparable Surveys Total	4716	6819	4659	4314	4352	5694	5568	ND

Population Change Between Comparable Surveys



Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	39	317	161	26	5	24	51	65
Antlered Harvest	1298	1770	949	1135	919	1226	1387	1578
% 4+ Points	31	31	37	34	32	57	55	58
All Deer Hunters	ND	6109	6529	5392	5518	5277	5689	6498
Mule Deer Hunters	ND	ND	ND	ND	ND	5187	5532	6274

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters. General hunt in Unit 56 is for 2-point bucks only.

Harvest

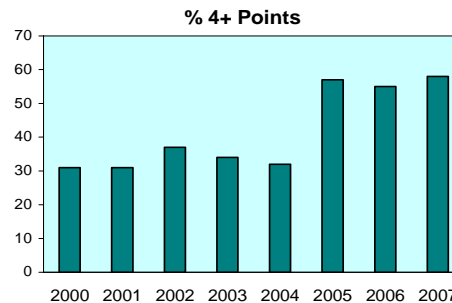
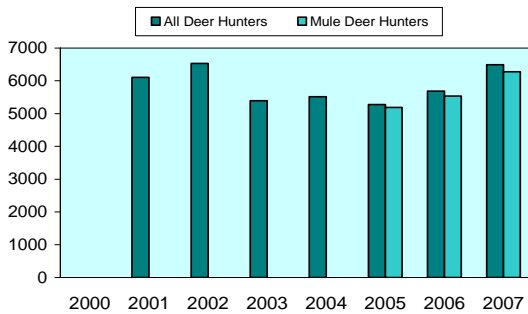
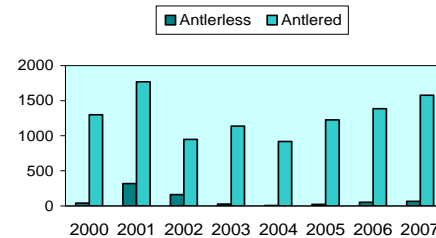


Figure 11. Mule Deer Analysis Area 20.

Analysis Area 21 (Units 71, 74)

Management Objectives

Objectives for Analysis Area 21 (Figure 12) include restricting antlerless harvest when trend area populations are 1,700 or less deer; managed antlerless harvest will be encouraged when deer numbers exceed this threshold value. This value represents an intermediate population size between current status and numbers observed during the late 1980s and early 1990s when deer populations were considered higher than could be supported during a normal winter and presented depredation concerns for agricultural producers. Additional objectives include maintenance of greater than 15 bucks:100 does post-season and a minimum of 30% 4+ points in the harvest.

Historical Perspective

The mule deer population in Analysis Area 21 has fluctuated widely since the mid-1800s. Early accounts by trappers through the area suggested that deer were seen but were less numerous than buffalo, bighorn sheep, and elk. Deer numbers probably declined through the early 1900s, possibly due to unregulated harvest. By 1920, observations of deer were quite rare. Between 1920 and the early 1970s, deer numbers increased dramatically, interrupted briefly by significant winter mortality. Following a significant decline in numbers beginning in 1972, numbers again increased until the late 1980s. The population level attained during this second peak probably did not reach that attained during the 1950s - early 1970s.

Harvest management during the 1950s and 1960s was designed to maintain or reduce deer numbers in response to what was considered over-browsed winter ranges. Long general either-sex seasons (3-5 weeks) predominated. Following the decline in the early 1970s, harvest management became more conservative with 2-4 week general seasons with varying amounts of either-sex opportunity offered. By the late 1980s, the deer population had increased to a point that a population reduction was desired. The years 1989 and 1990 were marked by four-week general either-sex seasons with extra deer tags available. Following the winter of 1992-1993 when significant winter mortality occurred, harvest management has been conservative.

Major wintering areas in this analysis area are: Blackrock Canyon (Unit 71), Portneuf Winter Range (Unit 71), the west facing slopes east of Downey (Unit 74), Hadley Canyon complex (Unit 74), Densmore Creek (Unit 74), and Treasureton (Unit 74).

Habitat Issues

This analysis area represents habitats that are intermediate in productivity between the highly productive units to the east and the less productive habitats to the west. Three main vegetation types predominate: sagebrush-grassland, aspen, and conifer. Other variations of these three main types that are important to deer include mixed brush communities, juniper, and mahogany. The current mix of vegetation cover types is a result of intensive grazing by livestock during the early 1900s and ongoing fire suppression efforts. These factors converted what was predominately perennial grass stands into shrublands. Given that current livestock grazing

practices are much more conservative and designed to promote grass, and that current shrublands are aging, it is believed that the quality of mule deer habitat probably peaked earlier in the twentieth century. The current conversion of aspen to conifer and replacement of mixed shrub and sagebrush communities by juniper probably will reduce habitat suitability for mule deer.

Approximately 28% of the land in this analysis area is publicly owned. USFS, BLM, and IDL administer nearly equal amounts of the public ground. Fort Hall Indian Reservation makes up approximately 15%, while the remaining 57% is private ground. The private ground is predominately used for rangeland pasture, small grains, and hay production. Depredation complaints are generally limited to periods of high deer populations. Predominant land uses of the publicly-owned ground include livestock grazing, timber management, and recreation. Of particular concern is the encroachment of human activity, either intense recreational efforts and/or structural developments, in mule deer winter range. Development along the Portneuf, Hadley Canyon complex, and Treasureton winter ranges, in particular, will reduce the potential for wintering greater numbers of deer.

Open habitat types combined with moderate road densities, and in some cases unrestricted ATV travel, result in greater vulnerability for mule deer in this analysis area. These two units receive high hunting pressure because of their close proximity to Pocatello.

Biological Issues

Recruitment rates in this analysis area, as evidenced by December/January fawn:doe ratios, have only been measured once, and 74 fawns:100 does was observed in 1996. It is believed that 66 fawns:100 does is adequate to maintain populations with normal winter mortality, while increased recruitment is necessary for population growth. Conversely, recruitment rates less than 66:100 are generally consistent with stable to declining populations.

Inter-specific Issues

Although livestock grazes much of the mule deer range in this analysis area, interactions of concern are relatively few and tend to be limited to localized areas. Of primary concern are livestock winter feedlot operations that over-concentrate deer during winter. Of minor concern are a few localized areas (riparian and winter range) of intense livestock pressure.

Of greater concern than livestock interactions is the current trend of elk occupying mule deer winter ranges. Some winter areas in this analysis area do not lend themselves to niche separation by the two species and, therefore, either direct resource competition and/or social intolerance will likely impact mule deer numbers. Recent encroachment of elk into mule deer winter range will require immediate action. The Department will aggressively seek opportunities to minimize the occupancy by elk in key mule deer winter ranges.

Predation Issues

Major predators of mule deer in this analysis area include mountain lions, coyotes, and bobcats. Mountain lion and coyote populations are believed to have increased during the last 30 years. It

is unknown specifically what impact these changing predator systems are having on mule deer population dynamics.

Winter Feeding Issues

Emergency supplemental feeding of deer occurs approximately every three years. Primary areas include between Inkom and McCammon and the west-facing hills between McCammon and Downey. In many cases, emergency feeding is initiated after deer have been attracted to cattle feedlot operations or private citizens began feeding deer early in winter. Both of these circumstances could short-stop deer from reaching more suitable winter range and generally result in high over-winter mortality rates. The Department, working in conjunction with the Winter Feeding Advisory Committee, will discourage livestock operators and other private citizens from encouraging deer use of non-traditional food sources.

Information Requirements

The Department will explore various means of better quantifying over-winter mortality so that harvest recommendations are more responsive to changing populations.

Annual monitoring of recruitment is needed along with a better understanding of factors affecting recruitment rates.

Although habitat succession and change are occurring, it is unknown specifically what quantitative impacts will occur with deer populations. Furthermore, it is unknown whether the aging of current mule deer habitat leads to ultimately less productive and nutritious vegetation.

Given that predator and elk populations and habitat have changed over time, a better understanding of the interrelationships and ecological processes governing mule deer population dynamics would greatly aid in management recommendation decisions.

Mule Deer Analysis Area 21 (Units 71, 74)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Portneuf (71)	2006	479	1700
Unit 74 (74)	2001	4112	NA
Total		479	1700

Note: NA = not applicable.



Buck Status & Minimum Criterion

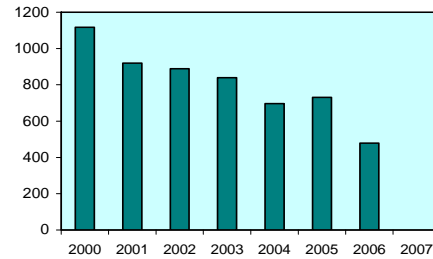
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2006	9	15
%4+ Pts in the Harvest	3-yr avg.	28	30

Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
Portneuf (71)	1118	920	889	840	697	731	479	ND
Unit 74 (74)	ND	4112	ND	ND	ND	ND	ND	ND
Comparable Surveys Total	1118	920	889	840	697	731	479	ND

Note: ND = no survey data available. Only the Portneuf Trend Area numbers appear in the Population Change chart.

Population Change* Between Comparable Surveys

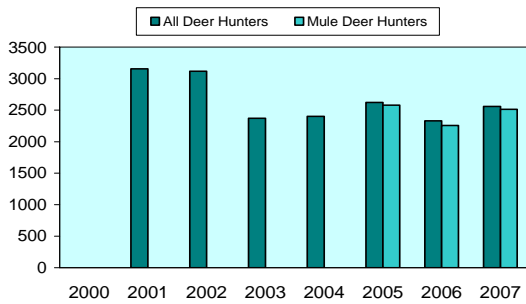
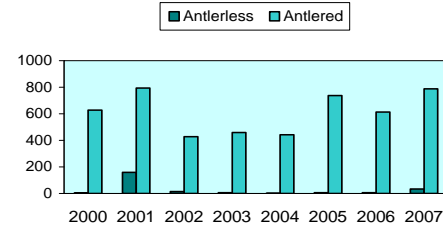


Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	4	159	14	6	1	6	6	34
Antlered Harvest	628	794	428	460	442	737	613	789
% 4+ Points	28	32	38	21	20	30	33	22
All Deer Hunters	ND	3154	3119	2372	2402	2622	2330	2560
Mule Deer Hunters	ND	ND	ND	ND	ND	2580	2259	2513

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

Harvest



% 4+ Points



Figure 12. Mule Deer Analysis Area 21.

Analysis Area 22 (Units 72, 75, 76, 77, 78)

Management Objectives

Objectives for Analysis Area 22 (Figure 13) include restricting antlerless harvest when trend area populations are less than 10,000 deer; managed antlerless harvest will be encouraged when deer numbers exceed this threshold value. This value represents an intermediate population size between current status and numbers observed during the late 1980s and early 1990s when deer populations were considered higher than could be supported during a normal winter and presented depredation concerns for agricultural producers. Additional objectives include maintenance of greater than 15 bucks:100 does post-season, and a minimum of 30% 4+ points in the harvest.

Historical Perspective

The mule deer population in Analysis Area 22 has fluctuated widely since the mid-1800s. Early accounts by trappers through the area suggested that deer were seen but were less numerous than buffalo, bighorn sheep, and elk. Deer numbers probably declined through the early 1900s, possibly due to unregulated harvest. By 1920, observations of deer were quite rare. Between 1920 and the early 1970s, deer numbers increased dramatically, interrupted briefly by significant winter mortality. Following a significant decline in numbers beginning in 1972, numbers again increased until the late 1980s. The population level attained during this second peak probably did not reach that attained during the 1950s - early 1970s.

Harvest management during the 1950s and 1960s was designed to reduce deer numbers in response to what was considered over-browsed winter ranges. Long general seasons with opportunity for extra deer tags predominated. Following the decline in the early 1970s, harvest management became more conservative with 2-4 week general seasons with varying amounts of either-sex opportunity offered. By the late 1980s, the deer population had increased to a point that a population reduction was desired. The years 1989 and 1990 were marked by four-week general either-sex seasons with extra deer tags available. Following the winter of 1992-1993 when significant winter mortality occurred, harvest management has been conservative.

An apparent change in the winter distribution of mule deer has occurred, primarily in Unit 76. During the 1950s and 1960s, deer use of the Soda Front (Wood Canyon south to Montpelier) was extensive, while use of the Bear Lake Plateau and the Soda Hills (Unit 72) was minimal. Currently, the Bear Lake Plateau and the Soda Hills represent the two most significant winter ranges for mule deer in Unit 76.

Major wintering areas in this analysis area are: Soda Hills (Unit 72), Bear Lake Plateau (Unit 76), West Bear Lake (Unit 78), Grace Front (Unit 75), and the Oneida Narrows Complex (Unit 77). An unknown number of deer migrate to and winter in Wyoming and Utah.

Habitat Issues

This analysis area represents the most productive habitats for mule deer in southeastern Idaho. Three main vegetation types predominate: sagebrush-grassland, aspen, and conifer. Other variations of these three main types that are important to deer include mixed brush communities, juniper, and mahogany. The current mix of vegetation cover types is a result of intensive grazing by livestock during the early 1900s and ongoing fire suppression efforts. These factors converted what was predominately perennial grass stands into shrublands. Given that current livestock grazing practices are much more conservative and designed to promote grass, and that current shrublands are aging, it is logical that quality mule deer habitat probably peaked earlier in the twentieth century. Additionally, the current conversion of aspen to conifer and replacement of mixed shrub and sagebrush communities by juniper probably will reduce habitat suitability for mule deer.

The USFS owns approximately 54% of the land in this analysis area. The remaining 46% of private ground is predominately used for rangeland pasture, small grains, and hay production. Depredation complaints are generally limited to periods of high deer populations. Predominant land uses of the publicly-owned lands include livestock grazing, timber management, recreation, and phosphate mining. Of particular concern is the encroachment of human activity, either intense recreational efforts (i.e., over-snow machine travel) and/or structural developments, in mule deer winter range. Development in the Bear River Valley of Unit 77 and along the West Bear Lake winter range in Unit 78 will undoubtedly reduce the potential for wintering greater numbers of deer.

Open habitat types combined with moderate road densities, and in some cases unrestricted ATV travel, probably result in a greater vulnerability standard for mule deer in this analysis area.

Biological Issues

Recruitment rates, as evidenced by December/January fawn:doe ratios, have ranged from 60 to 85:100 over the past few years. It is believed that 66 fawns:100 does is adequate to maintain populations with normal winter mortality, while increased recruitment is necessary for population growth. Conversely, recruitment rates less than 66:100 are generally consistent with stable to declining populations.

Inter-specific Issues

Although livestock graze much of the mule deer range in this analysis area, interactions of concern are relatively few and tend to be limited to localized areas. Of primary concern are livestock winter feedlot operations that over-concentrate deer during winter. Of minor concern are a few localized areas (riparian and winter range) of intense livestock pressure.

Of greater concern than livestock interactions is the current trend of elk occupying mule deer winter range. Some winter ranges in this analysis area do not lend themselves to niche separation by the two species and, therefore, either direct resource competition and/or social intolerance will likely impact mule deer numbers. Recent encroachment of elk into the Soda

Hills will require immediate action in order to maintain this area as a significant mule deer winter range. The Department will aggressively seek opportunities to minimize the occupancy by elk in key mule deer winter ranges.

Predation Issues

Potentially major predators of mule deer in this analysis area include black bears, mountain lions, coyotes, and bobcats. The black bear population is low, but appears to be increasing. Mountain lion and coyote populations are believed to have increased during the last 30 years. It is unknown specifically what impact these changing predator systems are having on mule deer population dynamics.

Winter Feeding Issues

Emergency supplemental feeding of deer occurs approximately every three years. Primary areas include Soda Springs, Georgetown Canyon, Montpelier Canyon, the east shore of Bear Lake and St. Charles Canyon. Deer are fed by interested citizens every year in some areas. In many cases, emergency feeding is initiated after deer have been attracted to cattle feedlot operations or private citizens began feeding deer early in winter. Both of these circumstances could short-stop deer from reaching more suitable winter range and generally result in high over-winter mortality rates. The Department, working in conjunction with the Winter Feeding Advisory Committee, will discourage livestock operators and other private citizens from encouraging deer use of non-traditional food sources.

Information Requirements

The Department will add another winter census trend area and explore various means of better quantifying over-winter mortality so that harvest recommendations are more responsive to changing populations.

Recent observed recruitment rates are consistent with either stable or slightly increasing populations. A better understanding of factors affecting recruitment rates is needed.

Although habitat succession and change are occurring, it is unknown specifically what quantitative impacts will occur with deer populations. Furthermore, it is unknown whether the aging of current mule deer habitat leads to ultimately less productive and nutritious vegetation.

Mule Deer Analysis Area 22 (Units 72, 75, 76, 77, 78)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
West Bear Lake (78)	2006	1689	3000
Soda Hills (72)	2006	2016	4000
Bear Lake Plateau (76)	2006	3363	3000
Total		7068	10000



Buck Status & Minimum Criterion

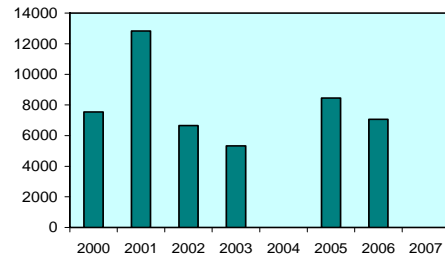
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2006	8	15
%4+ Pts in the Harvest	3-yr avg.	30	30

Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
West Bear Lake (78)	1707	3150	1405	1449	2852	2368	1689	ND
Soda Hills (72)	2378	4576	2877	1124	1801	2552	2016	ND
Bear Lake Plateau (76)	3467	5106	2378	2766	ND	3531	3363	ND
Comparable Surveys Total	7552	12832	6660	5339	ND	8451	7068	ND

Note: ND = no survey data available.

Population Change Between Comparable Surveys



Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	42	842	163	74	14	10	50	116
Antlered Harvest	1828	2506	1574	1761	1534	1630	1712	2519
% 4+ Points	31	30	37	25	24	29	37	25
All Deer Hunters	ND	7928	9951	8223	7545	7317	7706	7896
Mule Deer Hunters	ND	ND	ND	ND	ND	7224	6939	7585

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

Harvest

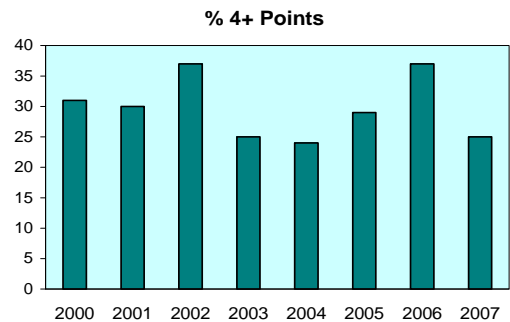
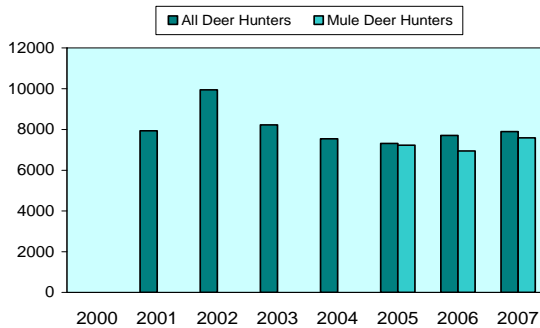
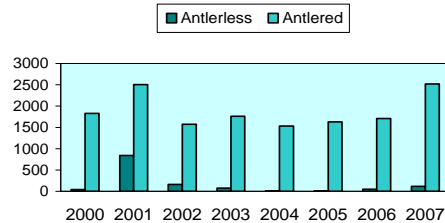


Figure 13. Mule Deer Analysis Area 22.

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Mule Deer Surveys and</u>
PROJECT:	<u>W-170-R-32</u>		<u>Inventories</u>
SUBPROJECT:	<u>6</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>1</u>		<u>Trends, Use, and Associated</u>
JOB:	<u>2</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 2007 to June 30, 2008</u>		

UPPER SNAKE REGION

Analysis Area 9 (Units 29, 37, 37A, 51)

Management Objectives

Objectives for Analysis Area 9 (Figure 14) are to maintain ≥ 15 bucks:100 does in post-season surveys and $\geq 30\%$ ≥ 4 -point bucks in the harvest. When estimated deer numbers exceed 800 in the Unit 51 trend area and 1,000 in the Unit 29 trend area, antlerless seasons will be considered.

Historical Perspective

Mule deer were scarce and harvests low for much of the early part of the twentieth century. By mid-century, mule deer had become the predominant big game animal. Once known for productive mule deer populations, particularly in the Pahsimeroi and Little Lost valleys, these units yielded very large mule deer harvests in the 1950s and 1960s. By the 1970s, harvests had dropped by two-thirds as more conservative management strategies were implemented. Despite two decades of very conservative antlerless harvests and increasingly conservative buck seasons, mule deer populations have failed to return to their previous high densities and are stable at moderate levels. Although deer herds declined well before any significant increase in elk numbers, current high elk densities may be contributing to suppressed deer populations.

Habitat Issues

Much of the land in these units is administered by BLM or USFS, with private lands mostly restricted to valley bottoms. Cattle ranching, livestock grazing, and recreation are dominant human uses of the landscape. The analysis area is generally arid; forage production and deer harvest can be strongly influenced by growing-season precipitation. Deer depredations on agricultural crops are common in Units 29, 37, and 37A and are especially pronounced in dry years. Depredations in Unit 51 are limited.

Habitat ultimately determines deer densities and productivity. However, specific limiting factors within the habitat are poorly understood. In some areas, deer winter in mature stands of mountain mahogany that appear relatively stagnant and unproductive. Winter range shrub

stands, specifically mountain mahogany, in parts of Little Lost Valley have been lost or degraded. Elk and livestock may have removed much of the mountain mahogany forage within reach of deer. Forests are slowly encroaching into shrub and grassland communities. Spread of noxious weeds, such as knapweed and leafy spurge, could ultimately have significant impacts on winter range productivity.

Biological Issues

Very little aerial survey data has been collected in these units in recent years. There is a contrast in harvest trends within this group of units. Buck harvest in the southern unit (51) averaged 184 from 1981-1985, increased 80% to average 331 during 1986-1990, dropped back to 211 during 1991-1995 and 178 during 1996-2000. In contrast, buck harvest in the northern units (29, 37, 37A) averaged 618 during 1981-1985, increased only 6% to 653 during 1986-1990, and then declined to average 412 bucks during 1991-1995 and 309 bucks during 1996-2000.

Inter-specific Issues

Current high elk densities may be having some impact on the area's capacity to produce deer. White-tailed deer, a potentially strong competitor, are mostly restricted to private agricultural lands along major riparian areas. In some limited areas, mountain goats and mule deer may be competing for the same mountain mahogany winter ranges. Pronghorn and bighorn sheep also share the range but generally overlap little with mule deer. Livestock rangeland grazing exists which is another potential source of competition, particularly in the moister summer range habitats.

Predation Issues

Black bear densities appear to be low and stable. Mountain lion densities are low to moderate and appear to have increased in Units 29, 37, and 37A in recent years, probably in part due to increased elk densities. Coyotes are common and have an unknown impact on deer populations in this area. Bobcats, red fox, and golden eagles also occur in the area but are not thought to account for significant predation on deer. Wolves were observed in parts of the analysis area but appeared to be primarily transient.

Winter Feeding Issues

Because this is an arid area with relatively little snowfall, winter feeding has not occurred in these units in recent years.

Information Requirements

Survey data on mule deer herd sex and age composition and trends in deer numbers have not been consistently collected in the past, but this situation is improving somewhat. Impacts of elk on mule deer production and survival are suspected but not quantified. Better information is needed to identify appropriate deer densities that will maintain optimum productivity and harvest. Migratory patterns are largely unknown.

Concerns over the representation the Unit 29 trend area surveys have over the whole DAU prompted the Upper Snake Region to implement a new deer composition and trend area in Unit 51. This trend area was flown for the first time in winter 2005-2006. Although this is the first year for this trend area, there is comparable data from past unit-wide counts in 1990, 1995, and 1999. The count of 1,232 deer in this trend area is an all-time high number for comparable surveys. The Unit 51 deer herd should continue to be monitored.

In winter 2005-2006, the Department placed radio collars on 17 adult deer in Unit 51. This is the first time deer have been marked in this unit and the data collected indicate that deer wintering in this unit do not move very far to summer range. This is very unusual for this part of Idaho. Adult survival was high on this sample.

Mule Deer Analysis Area 9 (Units 29, 37, 37A, 51)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Tendoy (29)	2004	685	1000
Little Lost (51)	2006	1232	800
Total		1917	1800



Buck Status & Minimum Criterion

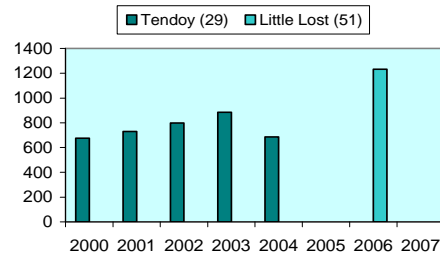
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio (29)	2004	5	15
Buck:Doe Ratio (51)	2006	27	15
%4+ Pts in the Harvest	3-yr avg.	33	30

Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
Tendoy (29)	676	730	798	885	685	ND	ND	ND
Little Lost (51)	ND	ND	ND	ND	ND	ND	1232	ND
Comparable Surveys Total	676	730	798	885	685	ND	1232	ND

Note: ND = no survey data available.

Population Change Between Comparable Surveys



Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	21	70	69	32	39	62	89	100
Antlered Harvest	561	600	610	424	452	582	543	702
% 4+ Points	36	30	31	31	39	33	35	31
All Deer Hunters	ND	2810	3172	2396	2225	2064	2270	2397
Mule Deer Hunters	ND	ND	ND	ND	ND	1914	1961	2118

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

Harvest

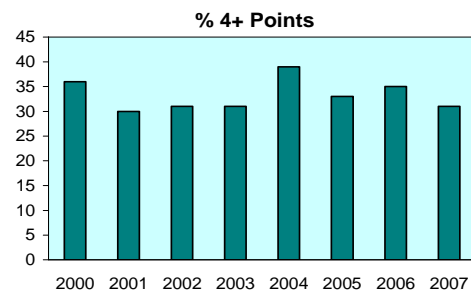
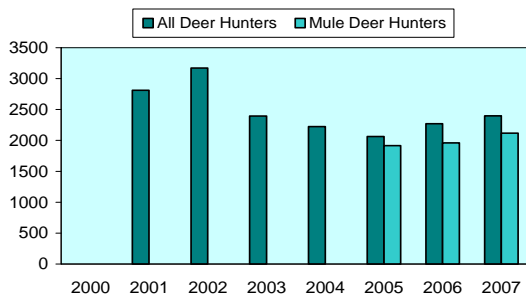
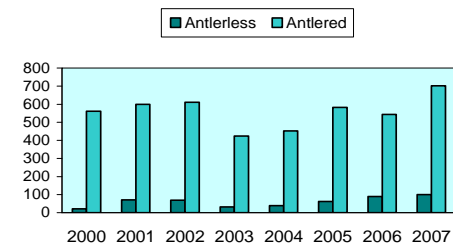


Figure 14. Mule Deer Analysis Area 9.

Analysis Area 8 (Units 36, 36A, 49, 50)

Management Objectives

Objectives for Analysis Area 8 (Figure 15) are to maintain a minimum of 15 bucks:100 does in post-season surveys and 30% \geq 4-point bucks in the harvest. When estimated deer numbers exceed 4,100 in the Unit 50 trend area, antlerless seasons will be considered.

Historical Perspective

Mule deer were scarce and harvests low for much of the early part of the twentieth century. By mid-century, mule deer had become the predominant big game animal. Once known for strong mule deer populations, particularly in Unit 36A, these units produced very high mule deer harvests in the 1950s and 1960s. By the 1970s, harvests had dropped by two-thirds as more conservative management strategies were implemented. Mule deer populations have failed to return to their previous high densities. Although deer herds declined well before any significant increase in elk numbers, current high elk densities may well be helping to suppress deer populations.

Habitat Issues

Cattle ranching, livestock grazing, and recreation are dominant human uses of the landscape in these units. This is in a generally arid region where forage production and deer populations can be strongly influenced by growing season precipitation. Deer depredations on agricultural crops have occurred in the past and are especially pronounced in dry years.

Habitat ultimately determines deer densities and productivity. However, specific limiting factors within the habitat are poorly understood. In some areas, deer winter in mature stands of mountain mahogany that appear relatively stagnant and unproductive. Elk may have removed much of the mountain mahogany forage within reach of deer. Forests are slowly encroaching into shrub and grassland communities. Spread of noxious weeds such as knapweed and leafy spurge could ultimately have significant impacts on winter range productivity.

Biological Issues

Buck harvest in the late 1980s in this analysis area reached the highest levels since at least 1970. In the 1990s, harvest dropped to near average levels, except in Unit 49, which remained well above the long-term average. Since seasons were shifted earlier in 1991, comparatively more of the Unit 36/36A buck harvest has come from Unit 36.

Inter-specific Issues

Current high elk densities may be having some impact on the area's capacity to produce deer. Pronghorn, moose, mountain goat, and bighorn sheep also share the range but generally overlap little with mule deer. Livestock rangeland grazing, another potential source of competition, can be significant.

Predation Issues

Black bear densities appear to be low to moderate and stable. Mountain lion densities are low to moderate and appear to have increased in recent years, probably at least in part due to increased elk densities. Coyotes are common and have an unknown impact on deer populations. Bobcats, red fox, and golden eagles also occur in the area but are not thought to account for significant predation on deer. Wolves recently reintroduced by USFWS in central Idaho are now established in Area 8, which may have some effect on other predators and on deer. The addition of wolves will likely have an impact on black bear, mountain lion, and coyote populations. At some level, predation could benefit deer herds to the extent that it reduces elk competition and keeps deer herds below carrying capacity, where they can be more productive. However, excessive levels of predation can also suppress deer populations to undesirably low levels. At this point, it is unclear what the net impact of predation will be with the new mix of predators.

Winter Feeding Issues

Emergency winter feeding of deer occurs infrequently, only during critical winter conditions. In Unit 50, mild winters with low snow accumulation has precluded the need for supplemental feeding. Winter 2007-2008 was a normal winter with average to above average snow fall. Small-scale private feeding operations may occur throughout the analysis area.

Information Requirements

Expanded survey data on mule deer herd sex and age composition and trends in deer numbers would be beneficial. Impacts of elk on mule deer production and survival are suspected but unknown. Better information is needed to identify appropriate deer densities that will maintain optimum productivity and harvest. Recent studies of deer survival and migratory patterns are providing valuable information.

Unit 50 has a complex situation in which over 9,000 deer may winter there, but very few stay in the unit year-round. The high number of deer currently wintering in Unit 50 is of concern since mountain mahogany stands appear to be declining and drought has reduced total winter range forage available. With a large elk population encroaching onto deer winter range, it is possible that this deer herd is at risk of a large die-off if a hard winter were to come. From recent radio-collar studies, we have learned that nearly every deer collared in Unit 50 on winter range leaves the unit to summer. This creates a problem when trying to use antlerless harvest to reduce the likelihood or severity of a large die-off in the future. Many local sportsmen oppose antlerless hunts since, during the general season, they do not observe many deer in Unit 50. The antlerless controlled hunt (Appendix A) is held late to try and harvest more migrant deer and take pressure off local deer.

Mule Deer Analysis Area 8 (Units 36, 36A, 49, 50)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
(50)	2006	6941	4100
Total		6941	4100



Buck Status & Minimum Criterion

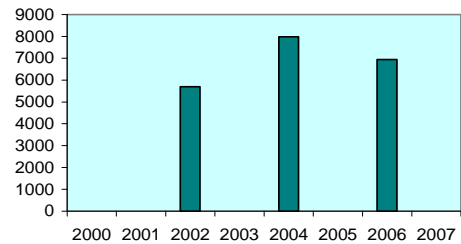
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2006	26	15
%4+ Pts in the Harvest	3-yr avg.	35	30

Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
(50)	ND	ND	5703	ND	7983	ND	6941	ND
Comparable Surveys Total	ND	ND	5703	ND	7983	ND	6941	ND

Note: ND = no survey data available.

Population Change Between Comparable Surveys

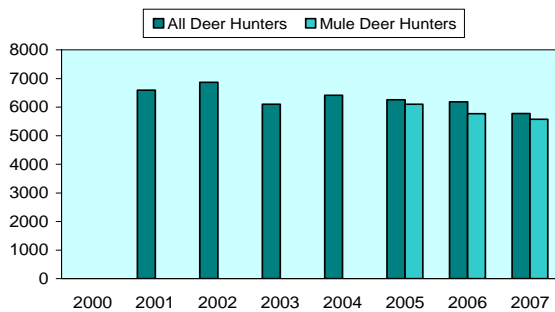
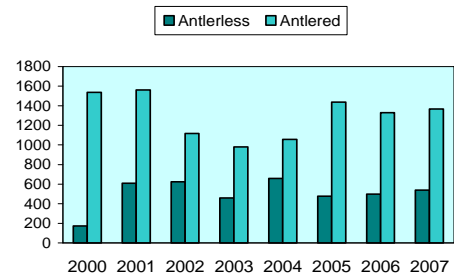


Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	172	611	624	459	660	478	498	539
Antlered Harvest	1537	1563	1116	981	1057	1438	1331	1367
% 4+ Points	31	23	26	27	32	34	34	36
All Deer Hunters	ND	6593	6864	6096	6414	6260	6184	5779
Mule Deer Hunters	ND	ND	ND	ND	ND	6098	5767	5572

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

Harvest



% 4+ Points

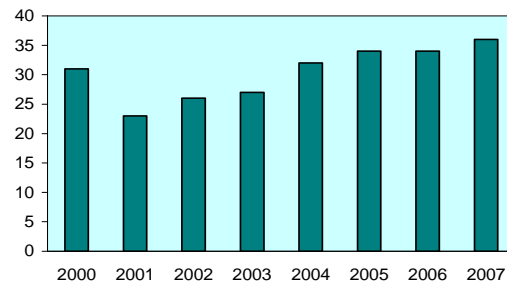


Figure 15. Mule Deer Analysis Area 8.

Analysis Area 15 (Units 52A, 63, 63A, 68, 68A)

Management Objectives

Given the low habitat potential for Analysis Area 15 (Figure 16) to support high densities of deer and the limited ability to collect reliable population information, the management objective will be to maintain deer and not fall below 30% 4+ points in the antlered deer harvest. No trend area will be established in this analysis area.

Historical Perspective

The deer population probably has changed very little since historic times in this analysis area. Accounts of trappers through this area in the mid-1800s indicated that buffalo, elk, pronghorn, and bighorn sheep were far more common than mule deer. Given the low densities of deer and low priority for deer in this analysis area, little data is available to indicate what population trends have occurred through time.

Harvest management has been a general hunt format, except for Units 63A and 68A, where human safety issues have warranted either archery or short-range weapon hunts (Appendix A).

Habitat Issues

This analysis area is primarily comprised of dry desert shrub types, thus representing a low productivity area. Potential to support high numbers of mule deer is extremely limited. However, agriculture combined with riparian habitats along the Snake River in Units 63A and 68A can provide for higher populations.

The BLM administers the majority of public ground (54% of total area) in Analysis Area 15. Private ground makes up 33% and the Idaho National Laboratory, Fort Hall Indian Reservation, and Craters of the Moon National Park combine for the remaining 12%. Most private ground is used for production of row crops and is situated along the Snake River floodplain. Both mule deer and white-tailed deer periodically create depredation concerns within agricultural zones.

Wildfires continue to play a big role with habitat throughout the analysis area. In many cases, fire has replaced climax sagebrush stands with annual and perennial grasses. Large fires occurred in this area again in summer 2006.

Biological Issues

The majority of this analysis area lacks potential to support good numbers of mule deer. No reliable population information is available to determine changes and/or trends in populations. Mule deer probably increase somewhat during favorable environmental conditions but can be drastically reduced during significant winter events. White-tailed deer comprise a small percentage of total deer in this area and are primarily restricted to riparian/agriculture habitats of the Snake River floodplain. No information exists as to trends in composition of mule deer

versus white-tailed deer. The little movement information we have indicates deer have some rather complicated migration patterns within and in and out of this area.

Inter-specific Issues

Mule deer share the habitat with livestock, elk, pronghorn, and white-tailed deer. It is unknown what impacts an increasing elk population or sympatric whitetails may have on mule deer. It is doubtful that pronghorn have any impact on mule deer population parameters. Much of the Snake River floodplain is used to winter livestock and, in many cases, riparian shrub communities have been significantly degraded. Additionally, a mule deer's social intolerance for livestock may make much of the riparian habitats unavailable to mule deer during winter months.

Predation Issues

Coyotes and bobcats are the predominate predators of mule deer in this analysis area. Trends in bobcat numbers are unknown; it is believed that coyotes have increased over the last 30 years. It is unknown whether coyotes are significantly impacting mule deer population dynamics.

Winter Feeding Issues

Emergency supplemental feeding has not been conducted in the past few years. However, private feeding operations probably occur periodically.

Information Requirements

Given the low potential for supporting high numbers of mule deer throughout this analysis area, little population information would be warranted. However, some information would be valuable.

Mule Deer Analysis Area 15 (Units 52A, 63, 63A, 68, 68A)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
ND	ND	ND	NA
Total		ND	NA

Note: ND = no survey data available, NA = not applicable.

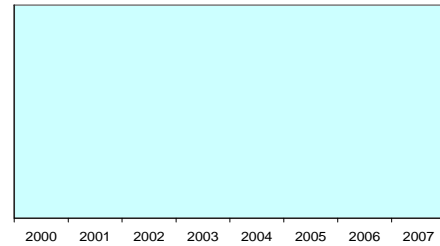


Buck Status & Minimum Criterion

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	ND	ND	NA
%4+ Pts in the Harvest	3-yr avg.	38	30

Note: ND = no survey data available, NA = not applicable.

Population Change Between Comparable Surveys

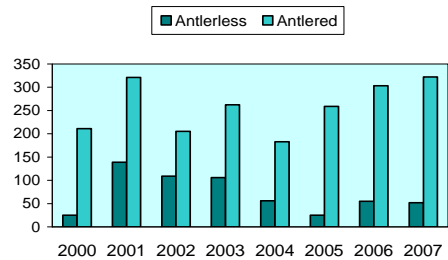


Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
ND	ND	ND	ND	ND	ND	ND	ND	ND
Comparable Surveys Total	ND	ND	ND	ND	ND	ND	ND	ND

Note: ND = no survey data available.

Harvest



Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	25	139	109	106	56	25	55	52
Antlered Harvest	211	321	205	262	183	259	303	322
% 4+ Points	38	36	52	29	32	42	31	40
All Deer Hunters	ND	2428	2273	2549	2118	2706	3294	2704
Mule Deer Hunters	ND	ND	ND	ND	ND	1511	1913	1621

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

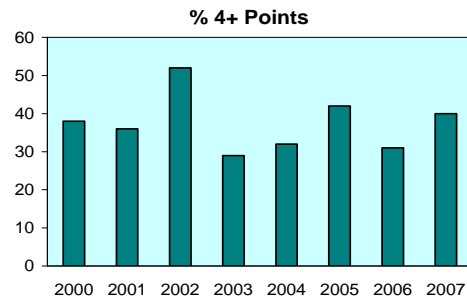
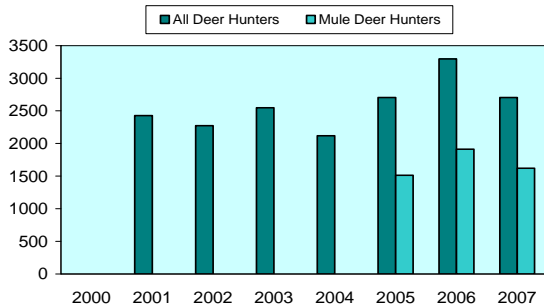


Figure 16. Mule deer Analysis Area 15.

Analysis Area 16 (Units 60, 60A, 61, 62A)

Management Objectives

Objectives for Analysis Area 16 (Figure 17) are to maintain a minimum of 15 bucks:100 does in post-season surveys and maintain at least 30% 4+ bucks in the general season harvest. General antlerless harvest opportunity will be encouraged when trend area populations exceed 1,500 deer. Conservative antlerless hunting opportunity in general hunts has limited management options. Controlled hunts have thus far influenced this population only slightly.

Historical Perspective

Since the early to mid-1980s, raw counts on Sand Creek winter range (Unit 60A) indicate that deer populations have at least doubled, steadily increasing from just over 1,300 deer in 1984 to 3,000 or more in 1996, 1997, and 2000. This population has historically been very susceptible to hard winters but is very productive and rebounds quickly. Populations have been built rapidly during periods without severe winter conditions only to crash with the next hard winter. Historically, these population reductions have occurred about every 4-6 years. The most recent winter that resulted in significant mortality was 2001-2002. Due to this, populations were down from the high levels of the late 1990s to an estimate of 1,492 deer in 2003, but in 2004, they had already rebounded to 2,123. The winter of 2007-2008 had average to above average snow conditions. On the Sand Creek winter range, radio-collared fawns had a 55% mortality rate and does had a 10% mortality rate. In February 2008, a complete sightability survey was flown and generated an estimate of 2397 mule deer (90% bound = 120).

Deer that winter on the Sand Creek winter range summer throughout Units 60, 61, 62A, and into Wyoming and Montana, resulting in a low deer density. Consequently, hunting pressure in these units is low and dispersed. The only time hunting pressure is significant on this population is when early snow forces deer down onto their high-desert winter range during the general hunt.

Habitat Issues

The gentle topography lodgepole pine communities of the Island Park caldera and the moderate to steeply-sloped Centennial Mountain Range with lodgepole pine and Douglas-fir communities dominate most deer summer range for this group of units. Most of this summer range occurs on lands administered by USFS.

Winter range is extremely limited for this deer herd. Sand Creek winter range supports a vegetative complex typical of high-desert shrub-steppe dominated by sagebrush. Bitterbrush and chokecherry are prominent on areas of stabilized sand; Rocky Mountain juniper is locally abundant. Land ownership consists of a checkerboard of state, BLM, and private property.

A 5,000-acre captive elk operation on Siddoway property has fenced off the majority of the South Juniper Hills. Some of that fenced-in property is historic mule deer winter range and is now unavailable to deer. No severe die-off occurred in response to the fence, but long-term

effects remain to be seen. In addition, new developments being built in 2008 near the sand dunes are further limiting mule deer migration to the winter range.

Biological Issues

Winter deer populations have been very high in Unit 60A. In the late 1990s, populations of 3,000-4,500 deer are the highest levels documented for this herd and are over double the antlerless harvest threshold of 1,500 total deer. The absence of a severe winter over nearly a decade during that time undoubtedly contributed to this increase.

In 2001, the Sand Creek trend area flown was a green-up survey in late March. This green-up timed survey was a departure from historical counts that were conducted while deer were on winter range. The 2001 trend count resulted in an estimate of 1,332 deer, down from the 2,866 estimated the previous winter. It is believed that the 2001 estimate was not an accurate reflection of the status of this population, but an artifact of the timing of this survey. Deer were already widely dispersed and a significant component of the population was undoubtedly not accounted for on this survey. More recent surveys have been conducted when deer are still on winter range.

Recruitment data for this trend area indicate the productive nature of this herd with fawn:doe ratios typically in the 80-90 range. The fawn:doe ratios for the 2006 survey resulted in an estimate of 79 fawns per 100 does. The fawn:doe ratio for the 2007 survey estimated 72 fawns per 100 does.

Deer were recently radio-collared in this analysis area for the first time. In late December 2003, 17 does and 26 fawns were captured and fitted with radio collars by drive-netting on the Sand Creek winter range. Fawn survival was very high at 88%. Dispersal was monitored and distribution was very widespread with animals summering from the Centennial Valley in Montana to the other side of Jackson Lake in Wyoming. Collars were put on more does in January 2005, 2006, and 2007 and we will continue to monitor survival and movements of these deer.

Inter-specific Issues

Although deer-elk interactions are not well understood, little evidence exists to support the notion of a negative relationship between mule deer, elk, and moose. White-tailed deer are found throughout most of the analysis area but are relatively uncommon.

The new domestic elk operation within the deer winter range has created a situation where wild elk have been attracted to the operation and have started using deer winter range.

Sheep and cattle grazing occur throughout this group of units, which could pose some competitive concerns, especially on winter range during drought years.

Predation Issues

Black bear densities appear to be low and stable in this group of units. Mountain lions are extremely rare. Coyotes are common, especially on Sand Creek Desert winter range. Wolves recently introduced in Yellowstone National Park have become established in this group of units, which could affect other predators and mule deer.

Winter Feeding Issues

No Department-sponsored feeding activities occur in this group of units except under emergency situations. However, social pressure to feed deer arises during any winter of average or greater severity. During the winter of 2007-2008, IDFG fed approximately 800 mule deer on the Sand Creek winter range due to harsh snow conditions.

Information Requirements

Survey protocol was revised beginning in 2000-2001 and again in 2007-2008. Future plans include the continuation of composition and complete surveys utilizing sightability methodology, as specified by the current mule deer management plan.

Mule Deer Analysis Area 16 (Units 60, 60A, 61, 62A)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Sand Creek (60A)	2008	2397	1500
Total		2397	1500



Buck Status & Minimum Criterion

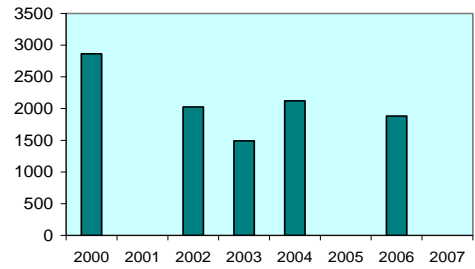
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2007	18	15
%4+ Pts in the Harvest	3-yr avg.	36	30

Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
Sand Creek (60A)	2866	ND	2025	1492	2123	ND	1881	ND
Comparable Surveys Total	2866	ND	2025	1492	2123	ND	1881	ND

Note: ND = no survey data available.

Population Change Between Comparable Surveys



Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	453	492	509	374	323	331	224	258
Antlered Harvest	490	505	321	302	361	343	377	476
% 4+ Points	36	27	30	28	28	33	38	37
All Deer Hunters	ND	4086	3920	3603	4272	4292	3616	3173
Mule Deer Hunters	ND	ND	ND	ND	ND	3541	2658	2439

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

Harvest

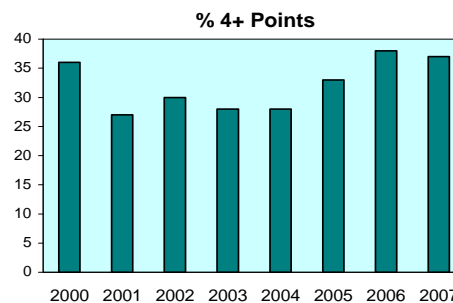
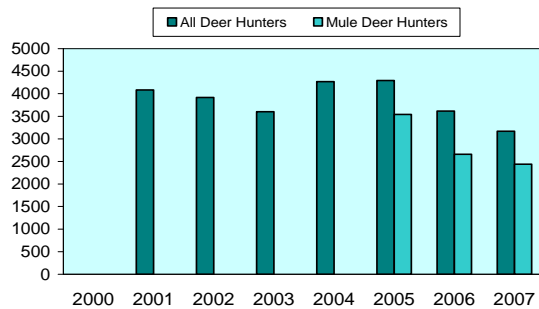
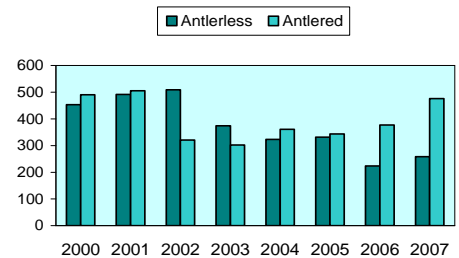


Figure 17. Mule Deer Analysis Area 16.

Analysis Area 17 (Units 62, 65)

Management Objectives

Objectives for Analysis Area 17 (Figure 18) are to maintain a minimum of 15 bucks:100 does in post-season surveys and maintain a minimum of 30% 4+ bucks in the harvest. Additionally, general antlerless harvest will be encouraged when trend area sightability estimates exceed 400 deer. Maintaining this population at a level where it doesn't cause chronic depredations and subsequent spontaneous deer-feeding by private citizens is an ongoing priority, particularly in Unit 65.

Historical Perspective

Old records of mule deer in this analysis area are sketchy and inconclusive; however, it is probable that they have always been present in unknown density. Early homesteaders reported that deer were scarce. Mule deer populations throughout the region increased in the 1940s and 1950s and remained high through the 1980s. Severe winters in 1988-1989 and 1992-1993 probably took much of the recruitment for those years. The population has since remained low, with the exception of one segment, which winters in the Teton River Canyon. Teton River Canyon deer are most likely primarily winter migrants from Wyoming and their population level is highly subject to the vagaries of winter severity, periodically suffering significant winter kill.

Habitat Issues

Summer habitat for Analysis Area 17 mule deer is relatively secure and capable of supporting far more animals than available winter range. In Unit 65, elevation and associated snow depths have always limited winter range. Additionally, what little winter range existed on private land is currently being developed into home sites. The best winter range in Unit 62 was first inundated by the Teton Dam and then more was destroyed by its failure. Some of the area has shown some slow recovery.

Biological Issues

Regional personnel believe that many mule deer wintering in this analysis area spends spring, summer, and fall in Wyoming. Radio-collar information in 2007-2008 confirmed that the majority of the mule deer in Teton Canyon summer in Wyoming. This confounds management because the deer often do not enter Idaho until after normal hunting seasons. Keeping this population below a level where they cause depredations to ornamental shrubs in winter or where people are providing them food requires cooperative management with Wyoming.

Mule deer in this analysis area are currently meeting all management objectives, including those required to allow general antlerless hunting. Management objectives for this analysis area are to maintain a minimum of 15 bucks:100 does post-season and 30% ≥ 4 points in the buck harvest. A 2007 composition survey resulted in an estimate of 26 bucks:100 does and the percent ≥ 4 points in the buck harvest for 2005-2007 was 43.

A trend count was conducted in late March and early April 2001 and resulted in an estimate of 614 total deer. This estimate was down significantly from the 1,626 deer estimated the previous winter (2000); however, it is believed that the 2001 estimate is not an accurate reflection of the status of this population. It is likely that mild winter/early spring conditions resulted in either deer not coming all the way to the Teton River Canyon winter range or leaving early, prior to the trend survey. A subsequent survey in 2002 resulted in an estimate of 1,257 deer. Winter trend area counts in 2005 and 2007 resulted in estimates of 1,775 deer and 1,340 deer, respectively. These counts may under-represent the true herd due to very mild winters not putting all the deer on traditional winter range. The winter of 2007-2008 had average to above average snow accumulation. The extremely harsh snow conditions around Teton Canyon forced almost all the mule deer to winter in the canyon or on the adjacent rim if accessible. A complete survey was flown and using sightability methodology an estimate of 2827 (90% bound = 397) was generated.

Inter-specific Issues

Mule deer share habitat in this analysis area with elk, moose, white-tailed deer, and high numbers of domestic livestock. Inter-specific relationships are not monitored and are poorly understood. White-tailed deer have increased dramatically in the Teton Basin over the past 10-15 years and have undoubtedly replaced mule deer in riverine habitats. Elk have also increased over the same time period that mule deer have declined; however, there is no information to demonstrate this represents a cause-and-effect relationship.

Predation Issues

Black bear densities appear to be low and stable in this group of units. Mountain lions are extremely rare. Coyotes are common, especially on open winter range. Grizzly bears are becoming more abundant as they push out from Yellowstone and Teton National Parks. Wolves recently introduced in Yellowstone National Park have become established in this group of units, which could affect other predators and mule deer.

Winter Feeding Issues

Authentic winter range is limited in this analysis area, particularly in Unit 65. The lowest spot in these units is above 6,000 feet in elevation. The area has few steep south and west facing slopes. Consequently, winters can be harsh on mule deer and, since home sites and ranches also occupy winter range, calls to feed deer are common and private efforts occur frequently. Feeding, either intentionally or incidentally to livestock operations, has produced a rapid growth in the area's white-tailed deer population. Discouraging winter feeding operations in this area requires constant effort. During winter 2003-2004 and 2007-2008 the Department and the Winter Feeding Advisory Committee sponsored emergency feeding of deer in Unit 65 and Unit 62 (2007-2008) due to harsh winter conditions.

Information Requirements

Survey protocol was revised beginning in 2000-2001 and again in 2007-2008. Future plans include the continuation of composition and complete surveys utilizing sightability methodology, as specified by the current mule deer management plan.

Migration patterns were largely unknown for deer wintering in this analysis area. Collaring efforts in 2007 indicate that most of these deer migrate into Wyoming for summer. It is possible that some deer may stay in Idaho and summer in the Warm River area or Big Hole Mountains. This possibility will continue to be explored with additional radio-collaring efforts.

Mule Deer Analysis Area 17 (Units 62, 65)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Teton River (62)	2008	2827	400
Total		2827	400



Buck Status & Minimum Criterion

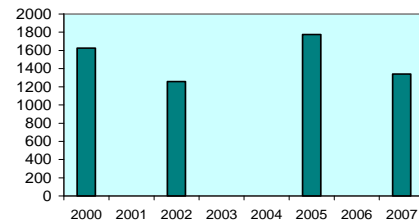
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2007	26	15
%4+ Pts in the Harvest	3-yr avg.	43	30

Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
(62)	1626	ND	1257	ND	ND	1775	ND	1340
Comparable Surveys Total	1626	ND	1257	ND	ND	1775	ND	1340

Note: ND = no survey data available.

Population Change Between Comparable Surveys



Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	26	50	38	34	33	37	80	39
Antlered Harvest	118	134	104	108	128	150	133	177
% 4+ Points	34	32	41	26	46	34	51	45
All Deer Hunters	ND	910	869	782	982	1126	1106	1053
Mule Deer Hunters	ND	ND	ND	ND	ND	890	753	721

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

Harvest

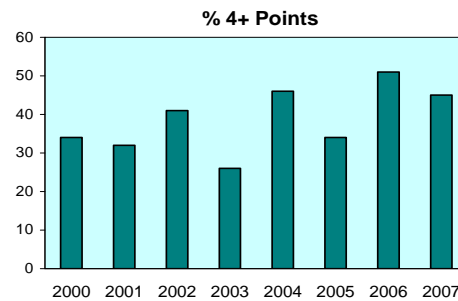
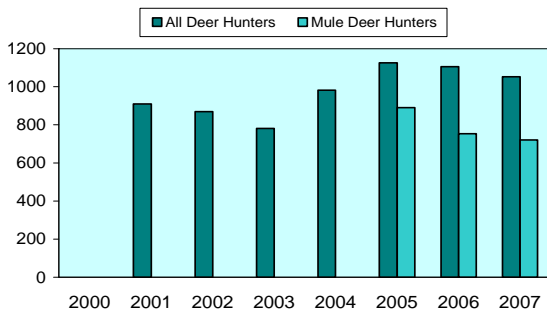
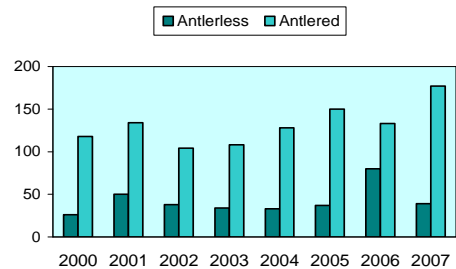


Figure 18. Mule deer Analysis Area 17.

Analysis Area 18 (Units 64, 67)

Management Objectives

Objectives for Analysis Area 18 (Figure 19) are to maintain a minimum of 15 bucks:100 does in post-season surveys and maintain a minimum of 30% 4+point and larger bucks in the general season harvest. Additionally, antlerless harvest will be encouraged when trend area sightability estimates exceed 1,500 deer. Maintaining this population at a level where it does not cause depredations and require winter feeding, particularly in Swan Valley, is an ongoing priority.

Historical Perspective

Old records of mule deer in this analysis area are sketchy and inconclusive; however, it is probable that they have always been present in unknown density. Early homesteaders reported that deer were scarce. Mule deer populations throughout the region increased in the 1940s and 1950s and remained high through the 1980s. Severe winters in 1988-1989 and 1992-1993 probably took much of the recruitment for those years. The population has rebounded to levels at or above the long-term average. A liberal general season extending 10 days into November was offered in these units until 1990. The recent philosophy has been to move seasons (Appendix A) into October to reduce vulnerability of adult males during the rut. This has been successful in reducing deer harvest and also hunter satisfaction. This analysis area offers most of what little backcountry hunting opportunity remains in southeast Idaho.

Habitat Issues

Abundant spring, summer, and fall habitat exists in this area but winter range is limited. Winter range has been lost to agriculture and is currently threatened by home site development. Opportunities to preserve or enhance winter range will be pursued. Winter range on slopes in the vicinity of the mouth of Rainey Creek appear to have suffered from years of overgrazing by elk and mule deer. The area between Table Rock Canyon and Kelly Canyon currently winters high concentrations of mule deer. Mature mountain mahogany stands throughout the analysis area may be providing only limited forage in addition to precluding all but a sparse understory of other species. Some bench areas in the Black Canyon to Wolverine Canyon stretch appear to be converting from shrub-dominated to grass-dominated or a conifer community. Most winter range in Swan Valley has been lost to agriculture, brush removal, or development.

Biological Issues

Mule deer in this analysis area are currently meeting management objectives, including those required to allow general antlerless harvest. Populations were at or near all-time highs prior to the severe 1988-1989 and 1992-1993 winters. Following a decline of unmeasured magnitude, they have recovered to at or above long-term average levels. Distribution has changed, particularly at Rainey Creek, where it was common to feed up to 500 deer through the 1987-1988 winter. Recently, there have been fewer than 200 fed at this location. Strategies designed to increase wintering elk in some parts of the area to offset elimination of the Rainey Creek feed-

site will need to be carefully monitored to protect existing mule deer populations. Snowmobile activity may be precluding the use of traditional winter range in the Canyon Creek area.

Management objectives for this analysis area are to maintain a minimum of 15 bucks:100 does post-season and 30% ≥ 4 points in the buck harvest. A 2007 composition survey resulted in an estimate of 28 bucks:100 does. The percent ≥ 4 points in the buck harvest for 2005-2007 was 47. A trend count in 2006 resulted in an estimate of 2,911 total deer, which far exceeds the antlerless harvest threshold of 1,500 total deer.

Although the Heise trend area population within this analysis area is meeting objectives and appears to be performing very well, the loss of winter range in Swan Valley outside of the trend area has most likely resulted in a one-third overall reduction of the mule deer population in this analysis area. Peripheral populations like these need to be monitored to determine the overall status of mule deer in the area.

The Heise winter range in Unit 67 has been the site of an annual winter fawn mortality study since 1998. During winter 2005-2006, Heise fawn mortality was at an all-time high of 84%. This was due to a long, early winter but also most likely indicates the population was too large coming into winter. Winter 2006-2007 saw far better fawn survival at 36% mortality. During the winter of 2007-2008 fawn mortality was 92% and doe mortality was 13%. This was due to a long winter with average to above average snow conditions.

Inter-specific Issues

In addition to mule deer, this analysis area supports an elk population and numerous moose. Domestic livestock extensively grazes portions of it. Inter-specific relationships are not monitored and are poorly understood. If the elk population is not carefully managed, conflicts with deer on winter range could develop.

Predation Issues

There are no known unique or unusual predator issues affecting mule deer populations in this analysis area.

Winter Feeding Issues

Mule deer have been fed during severe winters on an emergency basis below the Palisades Bench, near Heise, and in Canyon Creek. They have been fed on a regular basis at the mouth of Rainey Creek along with elk. Plans to eliminate feeding of elk at that site will remove the site's strong attraction to deer and should result in the end of deer feeding as well. With new and planned home site developments occurring in Swan Valley, new residents will be tempted to bait or feed deer and elk. All such efforts will be discouraged.

Information Requirements

Survey protocol was revised beginning in 2000-2001 and again in 2007-2008. Future plans include the continuation of composition and complete surveys utilizing sightability methodology, as specified by the current mule deer management plan.

Mule Deer Analysis Area 18 (Units 64, 67)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Heise (67)	2006	2911	1500
Total		2911	1500



Buck Status & Minimum Criterion

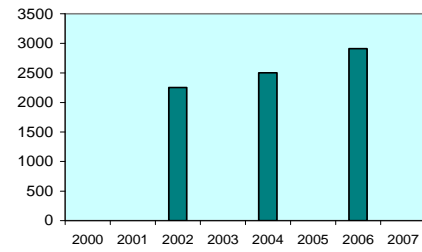
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2007	28	15
%4+ Pts in the Harvest	3-yr avg.	47	30

Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
Heise (67)	ND	ND	2252	ND	2503	ND	2911	ND
Comparable Surveys Total	ND	ND	2252	ND	2503	ND	2911	ND

Note: ND = no survey data available.

Population Change Between Comparable Surveys



Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	24	74	61	74	61	126	90	88
Antlered Harvest	191	172	125	186	178	258	205	381
% 4+ Points	40	40	56	46	48	51	44	45
All Deer Hunters	ND	1430	1489	1503	1672	1891	1915	2000
Mule Deer Hunters	ND	ND	ND	ND	ND	1523	1562	1579

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

Harvest

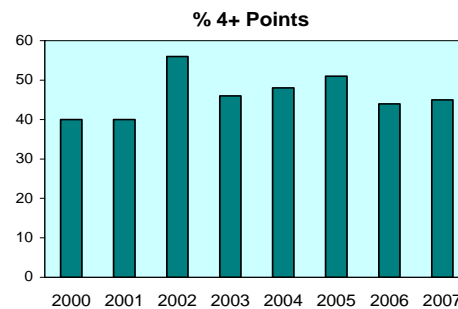
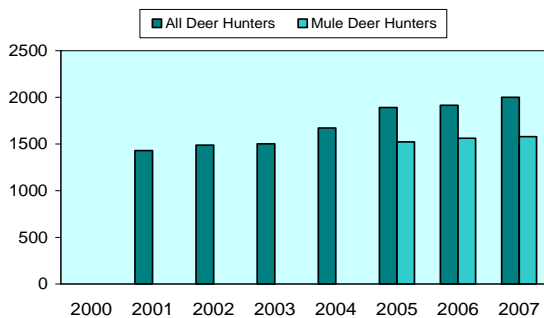
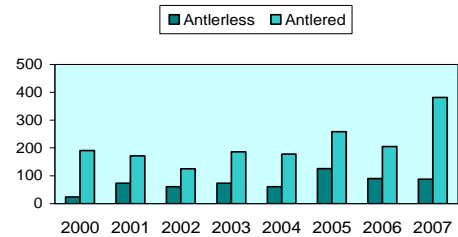


Figure 19. Mule deer Analysis Area 18.

Analysis Area 19 (Units 66, 66A, 69)

Management Objectives

Objectives for Analysis Area 19 (Figure 20) are to maintain a minimum of 15 bucks:100 does in post-season surveys and maintain a minimum of 30% four-point and larger bucks in the general season harvest. Additionally, general antlerless harvest will be encouraged when trend area sightability estimates exceed 3,000 deer.

Historical Perspective

Osborne Russell (1914) did not mention mule deer in this area in the 1840s. Since he liked to hunt deer and noted the presence of other big game in the general area, it is likely deer were not common. Early homesteaders reported that deer were scarce. Mule deer apparently increased during the 1940s and 1950s, perhaps in response to overgrazing by domestic livestock, which encourages shrubs over grasses. Deer numbers peaked during the late 1960s and then declined dramatically. They peaked again during the late 1980s and early 1990s, and then declined again following a severe winter in 1992-1993. Recently, the population has not recovered to the level of the long-term average. Hunting seasons over the years have been adjusted in an attempt to respond to obvious fluctuations in the population. Units 66 and 69 have supported one of the longest running late-season controlled buck hunts in the state (Appendix A). Permits for this hunt have extremely high appeal, but permit numbers have been reduced from a high of 200 permits in the 1980s to only 10 permits in 2005.

Habitat Issues

Habitat throughout Analysis Area 19 is or has the potential to be highly productive. The fertile, mineral-rich soils of the area produce diverse plant communities including sagebrush-grasslands, extensive aspen patches, and cool moist conifer stands primarily on north- and east-facing slopes. The terrain is generally mild and much of the private land of the area was historically dry-farmed with cereal grains. Over half of the area is private land with the balance of public lands administered by USFS, BLM, IDL, and the Department. Approximately 250 square miles of the southwest corner of the area is Fort Hall Indian Reservation land. A significant portion of private land is now enrolled in CRP. When CRP was new, it was contributing substantially to the area's carrying capacity for deer during all seasons. Since the early 1990s, CRP has become a decadent monoculture of grass and is very undesirable deer habitat. Aspen communities provide valuable fawning habitat for mule deer and have declined in area and quality throughout the analysis area. The Tex Creek WMA, partially owned and totally managed by the Department, provides 30,000 acres of prime winter habitat for mule deer, elk, and moose. This land was purchased to mitigate for habitat inundated or destroyed by Ririe, Palisades, and Teton dams.

Biological Issues

The management objective for bucks in the harvest (at least 30% of the buck harvest being ≥ 4 points) and buck:doe ratios (minimum of 15 bucks:100 does post-season) was met in this

analysis area. The percent ≥ 4 points in the buck harvest for 2005-2007 was 36, and composition counts resulted in an estimate of 22 bucks:100 does in 2007.

A trend count flown in late 2003 resulted in an estimate of 2,475 total deer, which is well below the 3,340 estimated on the 1999 survey and the antlerless harvest threshold of 3,000. The trend area was flown again in 2005 resulting in an estimate of 1,532 total deer. This downward trend was of great concern. The most recent survey was conducted in 2007 and a total of 3,110 deer were estimated. This increase is positive, but this important herd will have to be monitored closely.

The analysis area is part of the focus area for the Department's Mule Deer Initiative. It borders the Southeast Region where mule deer populations are also struggling.

Inter-specific Issues

In addition to mule deer, this analysis area supports a large elk population and numerous moose. Domestic livestock extensively graze the area. Inter-specific relationships are not monitored and are poorly understood. If the elk population is not kept in check, conflicts with deer on winter range could develop. In 2005, this deer population slowly declined to a low of 1,532 concurrent with an all-time high of 5,200 elk. A graduate student project (Paul Atwood) to look at elk/mule deer competition has been initiated to study this situation. Currently, agricultural practices, particularly management of CRP lands, and forest management practices are more beneficial to elk than deer.

Predation Issues

There are no known unique or unusual predator issues affecting mule deer populations in this analysis area.

Winter Feeding Issues

Mule deer have not been fed in this analysis area. Feeding should be discouraged in all but extreme emergency conditions.

Information Requirements

Sightability surveys and harvest reports are needed to monitor status of the population relative to objectives. A comprehensive inventory of winter range use by deer and winter range quality and quantity, including the status and terms of enrollment of CRP lands, would be valuable for long-range planning and management. CRP is particularly important because such a large percentage of this analysis area is privately owned. A large-scale conversion from CRP back to cultivated crops could result in significant depredation problems by both mule deer and elk under current population objectives for both species. Deer and elk competition is poorly understood and information on this subject would be valuable to better manage mule deer in this area. Information on peripheral deer winter ranges is needed.

Literature Cited

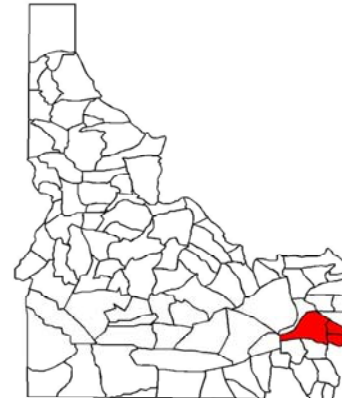
Russell, O. 1914. Journal of a Trapper, 1834-1843. Syms-York, Boise, Idaho.

Mule Deer Analysis Area 19 (Units 66, 66A, 69)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Tex Creek (69)	2007	3110	3000
Total		3110	3000

Note: NA = not applicable.



Buck Status & Minimum Criterion

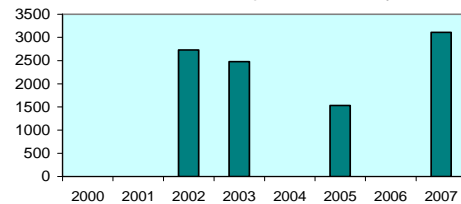
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio (69)	2007	22	15
%4+ Pts in the Harvest	3-yr avg.	36	30

Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
Tex Creek (69)	ND	ND	2730	2475	ND	1532	ND	3110
Comparable Surveys Total	ND	ND	2730	2475	ND	1532	ND	3110

Note: ND = no survey data available.

Population Change Between Comparable Surveys



Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	43	142	141	127	125	39	33	41
Antlered Harvest	552	586	368	442	457	734	645	931
% 4+ Points	42	37	39	28	32	40	38	30
All Deer Hunters	ND	3994	4163	3876	4044	4602	4668	3925
Mule Deer Hunters	ND	ND	ND	ND	ND	4272	4303	3555

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

Harvest

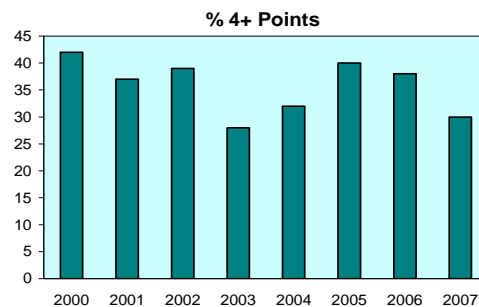
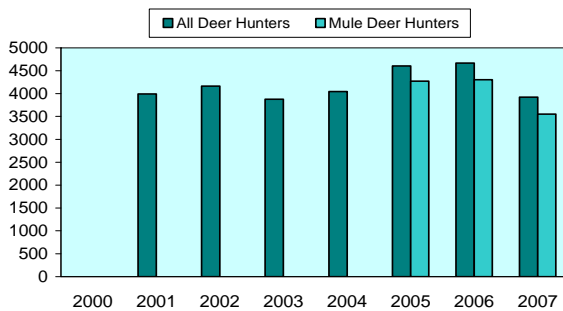
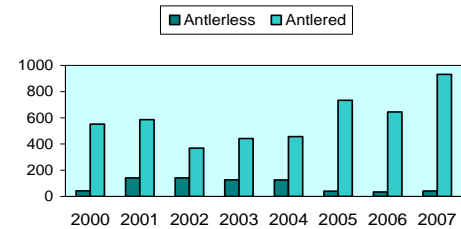


Figure 20. Mule deer Analysis Area 19.

**PROGRESS REPORT
SURVEYS AND INVENTORIES**

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Mule Deer Surveys and</u>
PROJECT:	<u>W-170-R-32</u>		<u>Inventories</u>
SUBPROJECT:	<u>7</u>	STUDY NAME:	<u>Big Game Population Status,</u>
STUDY:	<u>1</u>		<u>Trends, Use, and Associated</u>
JOB:	<u>2</u>		<u>Habitat Studies</u>
PERIOD COVERED:	<u>July 1, 2007 to June 30, 2008</u>		

SALMON REGION

Analysis Area 4 (Units 16A, 17, 19, 19A, 20, 20A, 25, 26, 27)

Management Objectives

Objectives for Analysis Area 4 (Figure 21) are to maintain ≥ 25 bucks:100 does in post-season surveys and $\geq 50\%$ ≥ 4 -point bucks in the harvest. When estimated deer numbers exceed 2,700 in the Unit 27 trend area, antlerless seasons will be considered.

Historical Perspective

These units represent the core of Idaho's backcountry; much of the area is designated wilderness. With the rugged, remote terrain and difficult access, management control of deer herds has been difficult at best. The forces of weather, fire, and plant succession have ultimately played a much larger role in deer populations than efforts of wildlife managers. In the late 1800s, human populations reached their peak as gold seekers poured into the area and established mining boom towns. With the miners came year-round big game hunting for meat, followed shortly by intensive livestock grazing. Depleted game herds plus heavy grazing of grass ranges set the stage for a shrub explosion in the early 1900s. At the same time, the mining boom collapsed and deer management emphasized protection from harvest; large "game preserves" were created.

By the 1930s, managers were recognizing that deer herds had grown to levels that were damaging winter ranges. Management emphasis shifted from protection to trying to achieve enough harvest to maintain winter range condition. Seasons were extended from mid-September through November to mid-December. Second and third deer tags were offered in some areas from the 1940s through the 1960s. A mid-September to late November season (Appendix A) has been standard in the backcountry units since the 1950s. Even today, much of the deer harvest is localized around access points such as roads and airstrips.

Ultimately, the shrub winter ranges could not be sustained. More controlled livestock grazing and fire suppression allowed grasses and conifers to out-compete shrub seedlings; shrub ranges began to revert to grasslands and forests. As the habitat went, so went the deer; long-term trend counts in Unit 27 showed a steady decline in deer numbers from the 1920s to the mid-1960s.

Since that time, the trend in deer numbers and harvest has been relatively flat. For example, 2,900 deer were counted during a 1968 helicopter deer survey of Unit 27. During helicopter elk surveys in Unit 27 in 1995, 1999, 2002, and 2006, staff counted 2,625-2,911 deer incidental to elk counts.

Habitat Issues

Habitat ultimately determines deer densities and productivity. In these units where hunter harvest has historically been light, particularly for females, deer herds could be expected to exist much of the time at densities approaching carrying capacity (unless suppressed by predators or temporarily set back by severe winters). Deer herds at or near carrying capacity can be expected to be relatively unproductive, recruiting few fawns, thus few bucks into the population, and these herds can be expected to produce bucks with small antlers. Unit 27 does produce relatively small-antlered bucks for their age, but this has not been definitively tied to deer densities or habitat. Continued shrub-land deterioration, conifer encroachment, and booming elk populations will probably continue to further erode habitat capacity for deer. Fire may enhance summer ranges and winter ranges in the more moist northern units, but fire is not likely to benefit the more arid southern winter ranges. In the summer of 2000, tens of thousands of acres burned within Units 26 and 27. Over time, it will be interesting to verify any correlation to fire and mule deer population performance. Already established in some areas, the spread of noxious weeds such as knapweed, rush skeletonweed, and leafy spurge could ultimately have significant impacts on winter range productivity.

Biological Issues

Very little mule deer aerial survey data has been collected in these units since the 1960s. What data has been collected suggests a fairly stable number of deer since that time. For example, a 1965 helicopter trend count in Unit 27 resulted in a tally of 1,963 deer. The same area flown in 1968 resulted in 2,929 deer observed, while 2,133 deer were counted incidental to elk surveys in 1995. Buck harvests since the mid-1970s in Unit 27 are variable, but indicate no definite upward or downward trend. Similarly, there is no evident trend in percent four-point bucks in the harvest, which varies annually, but averages approximately 55%. Since large fires in 2000 in the southern portion of the analysis area, some outfitters have reported increased deer numbers and antler development. A trend survey was done in Unit 27 in spring 2006 with the estimated number of deer at 2,718. This estimate correlates very well with past surveys.

Inter-specific Issues

Current high elk densities may be having some impact on the area's capacity to produce deer. White-tailed deer, a potentially strong competitor, are rare south of Salmon River but occur at greater densities in the more northern units. In some limited areas, mountain goats and mule deer may be competing for the same mountain mahogany winter ranges. Bighorn sheep also share some ranges, but generally overlap little with deer. Livestock rangeland grazing, another potential source of competition, is generally a very minor activity in most of these units.

Predation Issues

Black bear densities appear to be low to moderate in the southern units and increasing toward the north. Mountain lion densities are at least moderate, perhaps high, and appear to have increased in recent years, probably at least in part due to increased elk densities. Coyotes are common and have an unknown impact on deer populations. Bobcats and golden eagles are present, but are not thought to cause significant predation on deer. Wolves reintroduced by USFWS have become well established in these units. The addition of wolves will likely have an impact on black bear, mountain lion, and coyote populations. At some level, predation could benefit deer herds to the extent that it reduces elk competition and keeps deer herds below carrying capacity where they can be more productive. However, excessive levels of predation can also suppress prey populations to undesirably low levels. At this point, it is unclear what the net impact of predation will be with the new mix of large predators.

Winter Feeding Issues

Winter feeding has not occurred in these remote big game units.

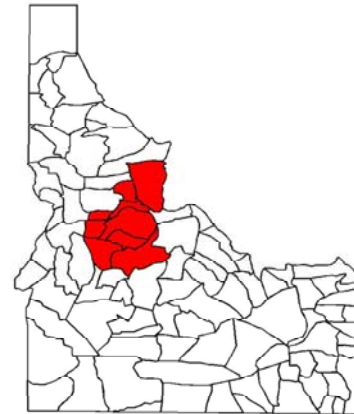
Information Requirements

Impacts of elk on mule deer production and survival are suspected but unknown. The most productive deer herds are those maintained at a level well below carrying capacity. Better information is needed to identify appropriate deer densities that will maintain optimum productivity and harvest. The potential impact of the new mix of large predators is unknown. Migratory patterns are largely unknown.

Mule Deer Analysis Area 4 (Units 16A, 17, 19, 19A, 20, 20A, 25, 26, 27)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Middle Fork (27)	2006	2718	2700
Total		2718	2700



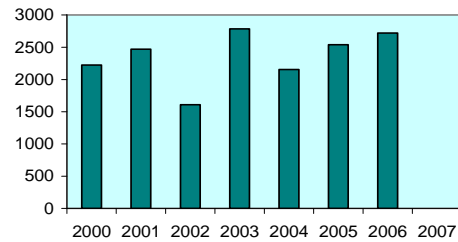
Buck Status & Minimum Criterion

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2007	18	25
%4+ Pts in the Harvest	3-yr avg.	63	50

Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
Middle Fork (27)	2225	2468	1610	2785	2154	2540	2718	ND
Comparable Surveys Total	2225	2468	1610	2785	2154	2540	2718	ND

Population Change Between Comparable Surveys

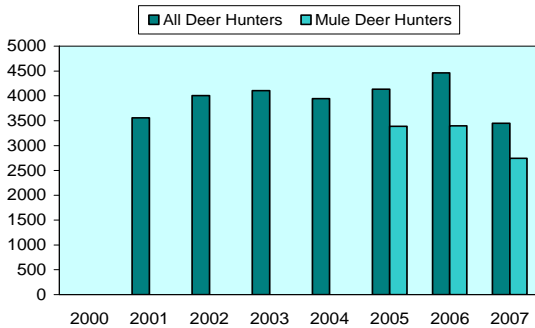
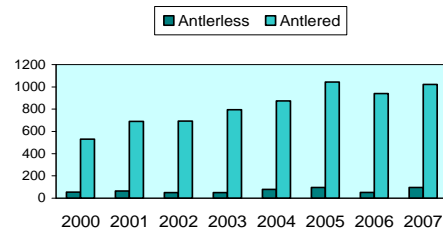


Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	54	65	50	50	79	97	52	96
Antlered Harvest	530	689	693	796	874	1044	940	1023
% 4+ Points	58	55	61	58	61	64	60	65
All Deer Hunters	ND	3555	4007	4106	3946	4132	4463	3449
Mule Deer Hunters	ND	ND	ND	ND	ND	3389	3397	2741

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

Harvest



% 4+ Points

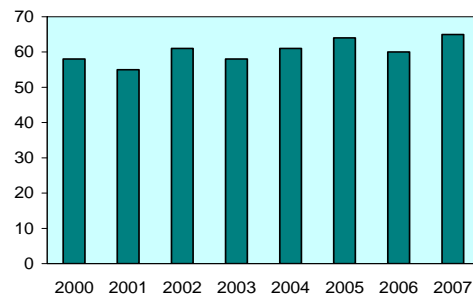


Figure 21. Mule deer Analysis Area 4.

Analysis Area 5 (Units 21, 21A, 28, 36B)

Management Objectives

Objectives for Analysis Area 5 (Figure 22) are to maintain ≥ 15 bucks:100 does in post-season surveys and $\geq 30\%$ ≥ 4 -point bucks in the harvest. When estimated deer numbers exceed 1,800 in North Fork trend area and 2,500 in Challis trend area, antlerless seasons will be considered.

Historical Perspective

Mule deer were scarce and harvests low for much of the early part of the twentieth century. From 1917 until the 1940s, parts of Units 28 and 36B were designated as no hunting “game preserves.” By the early 1940s, deer herds had expanded to the point that long, either-sex seasons were being offered (early Oct to mid-Nov). This pattern continued into the 1970s, when the antlerless portion of the season began to be shortened and total season length was shortened to include mid-October to mid-November. In 1991, concerns for mature buck escapement led to shifting the deer season earlier so that it ended in October before the rut began. Since 1991, the deer season framework (Appendix A) has been the most conservative these units have seen in at least 50 years. The 2005 hunting season was shifted to 10-31 October in an attempt to establish consistent season framework across the state. However, high fawn mortality during winter 2005-2006 and reduced buck ratios after the 2005 season prompted a reduction in season length after 2005 (10-24 Oct).

Hunter numbers have dropped from 4,000-5,000 hunters harvesting 700-1,600 bucks annually during the 1990s to 2,700-3,700 hunters harvesting 800-950 bucks since 1999. Antlerless deer harvest was eliminated in 1998 and buck harvest declined in subsequent years. This decline may be attributable to increased competition between does and bucks for limited forage resources and/or decreases in hunter numbers.

Hunter numbers and harvest increased substantially in this analysis area over the last three years, with an average of 4,138 hunters taking 1,575 bucks. The five-year averages prior to the 2005 season were 3,219 hunters and 879 bucks. This harvest was correlated somewhat with increases in population data, but hunter success rates also increased during the last three years. Weather and climatic factors did not seem to be drastically different than in other years.

Habitat Issues

Cattle ranching, livestock grazing, mining, timber harvest, and recreation are dominant human uses of the landscape in Analysis Area 5. Deer depredations on agricultural crops are minor. Intrusion of human development into winter ranges is accelerating.

Habitat ultimately determines deer densities and productivity. However, specific limiting factors within the habitat are poorly understood. Deer herds at or near carrying capacity can be expected to be relatively unproductive, recruiting few fawns, thus few bucks into the population; antlers will be relatively small for the age of the buck; and antler drop will occur relatively early in winter. Deer herds in this group of units exhibit all these traits to some degree, but this has not

been definitively tied to deer densities or habitat. In some areas, deer winter in mature stands of mountain mahogany that are relatively stagnant and unproductive. Elk may have removed much of the mountain mahogany forage within reach of deer. Forests are slowly encroaching into shrub and grassland communities. Spread of noxious weeds, such as knapweed and leafy spurge, could ultimately have significant impacts on winter range productivity.

Biological Issues

A trend area in Unit 21 near North Fork has been surveyed most years since December 1990 and a similar trend area has been surveyed in Unit 36B south of Challis since December 1994. However, the value of these surveys as indicators of total deer numbers is questionable; strong variations, including biological impossibilities, occur from one year to the next. These flights do provide insights into herd productivity and sex/age structure. Fawn production has apparently declined since 2000, with average fawn ratios in early winter decreasing (13-16:100 does). Buck:doe ratios in Unit 21 increased after the 1991 season change and have since generally stabilized at 15-19 bucks:100 does with two years of higher (28-32) ratios since 2002. Buck:doe ratios historically were higher in Unit 36B, generally closer to 20 bucks:100 does. However, ratios declined to 11 bucks:100 does between 1999 and 2003. Buck ratios increased in winters 2003 and 2004 (23-31 bucks:100 does), exceeding management objectives. In December 2005, buck:doe ratios once again dipped to 13-18:100.

Fawn monitoring information for the 2005-2006 winter indicated fawn mortality at 78% within this analysis area. Observational information indicated that adult mortality could have been significant in this area as well. Despite high fawn mortality the previous winter, proportion of yearling bucks observed at the region's big game check station in fall 2006 was similar to that in 2005. Further, yearling bucks were more prevalent during post-season composition surveys in winter 2006 compared to 2005.

Inter-specific Issues

Area 5 contains the majority of the most productive deer units in Salmon Region; parts of Units 21, 21A, and 36B contain high densities of wintering deer. Current high elk densities may be having some impact on the area's capacity to produce deer. This impact may be particularly pronounced during severe winters when deep snow moves elk down onto deer winter ranges. White-tailed deer, a potentially strong competitor, are mostly restricted to private lands along major riparian areas between Salmon and Gibbonsville. Pronghorn, bighorn sheep, and mountain goat share some ranges but generally overlap little with mule deer. Livestock rangeland grazing, another potential source of competition, has generally been reduced in recent years.

Predation Issues

Black bear densities appear to be moderate in Analysis Area 5. Mountain lion densities are at least moderate, perhaps high in some areas, and appear to have increased in recent years, probably at least in part due to increased elk densities. Coyotes are common and have an unknown impact on deer populations. Bobcats, red fox, and golden eagles also occur in the area

but are not thought to account for significant predation on deer. Reintroduction of gray wolves by USFWS has resulted in establishment of ≥ 10 packs in the analysis area: ≥ 3 in Unit 28, two in Unit 21, ≥ 4 in Unit 36B, and ≥ 1 in Unit 21A. The addition of wolves will likely have an impact on black bear, mountain lion, and coyote populations. At some level, predation could benefit deer herds to the extent that it reduces elk competition and keeps deer herds below habitat carrying capacity where they can be more productive. However, excessive levels of predation can also suppress prey populations to undesirably low levels. At this point, the net impact of predation with the new mix of large predators is unclear.

Winter Feeding Issues

Limited amounts of deer feeding occur about once per decade in the North Fork area. Minor private feeding activities also occur from time to time.

Information Requirements

Surveys conducted from 1990 to 2007 in Unit 21 and 1994 to 2007 in Unit 36B provided some long-term data on mule deer herd sex and age composition and trends in deer numbers. However, knowledge of deer population characteristics is limited to these areas and may not adequately reflect the entire analysis area. Survey methodology was changed in 2008 and population estimates for these units will not be conducted until 2011. Impacts of elk on mule deer production and survival are suspected but not quantified. The most productive deer herds are those maintained at a level well below carrying capacity. Better information is needed to identify appropriate deer densities that will maintain optimum productivity and harvest. Migratory patterns are largely unknown. Potential impact of the new mix of large predators is unknown.

Mule Deer Analysis Area 5 (Units 21, 21A, 28, 36B)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
North Fork (21)	2007	1072	1800
Challis (36B)	2007	2344	2500
Total		3416	4300



Buck Status & Minimum Criterion

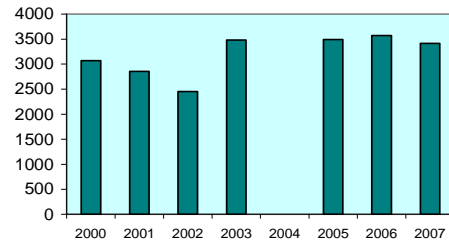
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2007	21	15
%4+ Pts in the Harvest	3-yr avg.	37	30

Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
North Fork (21)	1104	1284	459	1273	ND	1218	1223	1072
Challis (36B)	1963	1568	1993	2210	1721	2272	2348	2344
Comparable Surveys Total	3067	2852	2452	3483	ND	3490	3571	3416

Note: ND = no survey data available.

Population Change Between Comparable Surveys



Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	1	8	10	3	4	71	50	90
Antlered Harvest	832	830	852	954	927	1890	1445	1390
% 4+ Points	34	23	30	32	33	44	32	36
All Deer Hunters	ND	2786	3127	3683	3280	4409	4187	3819
Mule Deer Hunters	ND	ND	ND	ND	ND	4127	3832	3444

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

Harvest

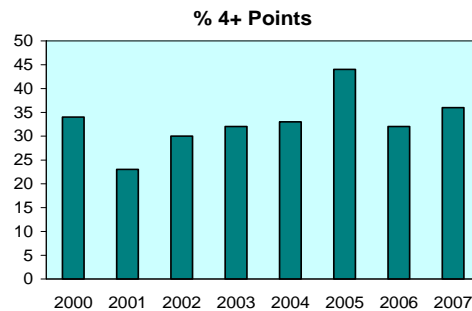
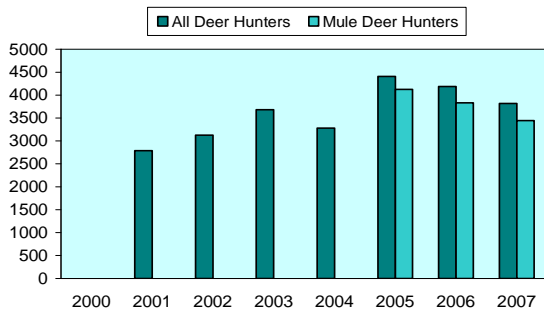
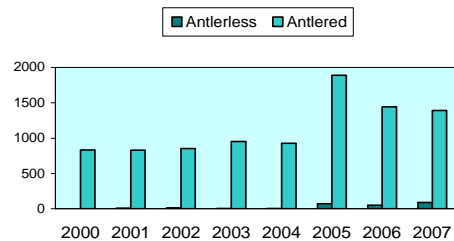


Figure 22. Mule deer Analysis Area 5.

Analysis Area 10 (Units 30, 30A, 58, 59, 59A)

Management Objectives

Objectives for Analysis Area 10 (Figure 23) are to maintain ≥ 15 bucks:100 does in post-season surveys and to maintain $\geq 30\%$ ≥ 4 -point bucks in the harvest. When estimated deer numbers exceed 1,400 in the Unit 58/59A trend area and 1,200 in the Unit 30/30A trend area, antlerless seasons will be considered.

Historical Perspective

Mule deer were scarce and harvests low for much of the early part of the twentieth century. Parts of some units were designated as no hunting “game preserves.” By mid-century, mule deer had become the predominant big game animal. These units produced high mule deer harvests in the 1950s and 1960s. By the 1970s, harvests had dropped by 50% as more conservative management strategies were implemented. Despite two decades of very conservative antlerless harvests and increasingly conservative buck seasons, mule deer harvests have remained relatively stable since the early 1970s in Units 30 and 30A and since the early 1980s in Units 58, 59, and 59A. Although deer herds declined well before any significant increase in elk numbers, current high elk densities may well be helping to suppress deer populations in Units 30 and 30A. Further south in Units 58, 59, and 59A where elk densities have also increased substantially, trend counts suggest that deer populations are now at or slightly above late 1960s levels.

Many of these deer, particularly in Lemhi Valley, migrate to higher-quality summer ranges in Montana, returning to Idaho winter ranges in November.

Habitat Issues

The BLM or USFS administers much of the land in these units, with private lands mostly restricted to valley bottoms. Cattle ranching, livestock grazing, and recreation are the dominant human uses of the landscape in these units. This is in a generally arid region where forage production and deer harvest can be strongly influenced by growing season precipitation. Deer depredations on agricultural crops are common and are especially pronounced in dry years in Units 30 and 30A, but have not been a problem in Units 58, 59, and 59A.

Habitat ultimately determines deer densities and productivity. However, specific limiting factors within the habitat are poorly understood. In some areas, deer winter in mature stands of mountain mahogany which appear to have become relatively stagnant and unproductive. Elk and livestock may have removed much of the mahogany canopy within reach of deer. Forests are slowly encroaching into shrub and grassland communities. The spread of noxious weeds, such as knapweed and leafy spurge, could ultimately have significant impacts on winter range productivity.

Traditionally, deer in Units 58, 59, and 59A concentrate on winter ranges at the south end of the Beaverhead Range. Heavy snows in the late 1960s placed tremendous pressure on very narrow portions of these units, killing many browse plants. Winter range habitat condition is still poor to

fair for many of the bitterbrush and mountain mahogany stands important to wintering deer. Mountain mahogany, the primary winter browse species, is still heavily hedged with little regeneration. Winter domestic sheep grazing is contributing to this overuse.

Biological Issues

This analysis area contains two trend areas: Leadore (Units 30/30A) in Salmon Region and Reno Point (Units 58/59A) in Upper Snake Region. Total deer estimated in 2003 for both areas combined (2,563) fell slightly below the antlerless harvest threshold of 2,600 for the first time in several years, but rebounded to over 3,100 deer in 2005. Deer numbers in the Leadore survey area declined approximately 40% after three years of above-threshold levels from 1999 to 2001.

Buck ratios have varied near the management objective (minimum of 15 bucks:100 does post-season) in recent years. Percent of the buck harvest ≥ 4 points has been at or above objective ($\geq 30\%$) since 2003.

Inter-specific Issues

Current high elk densities in Units 30 and 30A may be having some impact on the area's capacity to produce deer. However, this is not believed to be a problem in Units 58, 59, and 59A because deer and elk appear to use different winter and summer ranges. It should be noted, however, that deer-elk interactions are not well understood. White-tailed deer, a potentially strong competitor, are mostly restricted to private agricultural lands along major riparian areas. In some limited areas, mountain goats and mule deer may be competing for the same mountain mahogany winter ranges. Antelope and bighorn sheep also share the range but generally overlap little with mule deer. Livestock rangeland grazing, another potential source of competition, has generally been reduced in recent years, but is still a concern on the southern winter ranges.

Predation Issues

Black bear densities appear to be low and stable. Mountain lion densities are low to moderate and appear to have increased in recent years in Units 30 and 30A, probably at least in part due to increased elk densities. Coyotes are common and have an unknown impact on deer populations. Bobcats, red fox, and golden eagles also occur in the area but are not thought to cause significant predation on deer.

Winter Feeding Issues

Winter feeding has not occurred in these units in the past few years.

Information Requirements

Survey data on mule deer herd sex and age composition and trends in deer numbers have been inadequate in this analysis area but are improving. Impacts of elk on mule deer production and survival are suspected but not quantified. The most productive deer herds are those maintained at a level below carrying capacity (at which point recruitment equals mortality and there is no

harvestable surplus). Better information is needed to identify appropriate deer densities to maintain optimum productivity and harvest. Although strong interstate movements have been suspected, very little information exists on migration patterns. The Reno Point trend area was included in Upper Snake Region's fawn mortality work starting in 2000-2001, providing information on movement patterns of deer from this winter range.

Deer in Unit 30 were radio-marked in December 2003 and 2004 as part of the fawn monitoring project in Salmon Region. As suspected, some deer migrated to Montana summer ranges. In some cases, migration distances were significant. One collar was shed approximately 96 km north of the animal's winter range near the Continental Divide in the Anaconda-Pintlar Wilderness.

Mule Deer Analysis Area 10 (Units 30, 30A, 58, 59, 59A)

Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Reno Gulch (58/59A)	2007	1740	1400
Leadore (30/30A)	2007	1084	1200
Total		2824	2600

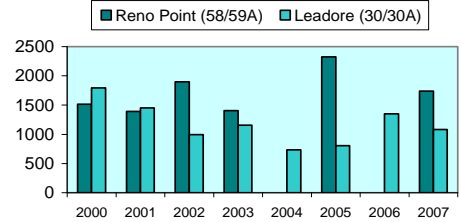


Buck Status & Minimum Criterion

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio (30/30A)	2007	11	15
Buck:Doe Ratio (58/59A)	2005	27	15
%4+ Pts in the Harvest	3-yr avg.	33	30

Note: Leadore Buck:Doe Ratio=16, 58 bucks:355 does

Population Change Between Comparable Surveys

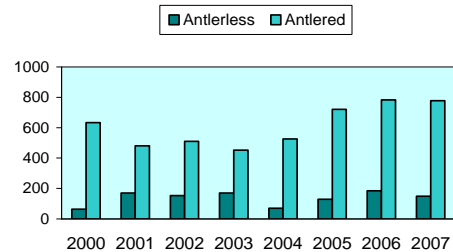


Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	2000	2001	2002	2003	2004	2005	2006	2007
Reno Point (58/59A)	1514	1391	1900	1407	ND	2323	ND	1740
Leadore (30/30A)	1792	1453	996	1156	734	805	1350	1084
Comparable Surveys Total	3306	2844	2896	2563	ND	3128	1350	2824

Note: ND = no survey data available.

Harvest



Analysis Area Harvest Statistics

	2000	2001	2002	2003	2004	2005	2006	2007
Antlerless Harvest	63	171	153	170	70	129	185	149
Antlered Harvest	633	481	510	452	526	721	784	778
% 4+ Points	27	24	24	29	30	30	39	31
All Deer Hunters	ND	2171	2560	2788	2748	2820	3174	2949
Mule Deer Hunters	ND	ND	ND	ND	ND	2588	2986	2633

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

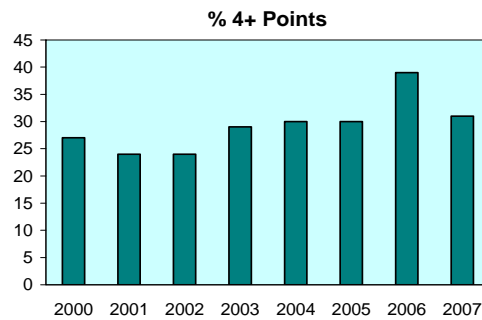
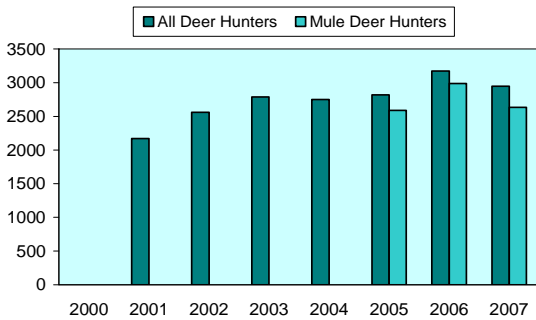


Figure 23. Mule deer Analysis Area 10.

APPENDIX A
IDAHO
2007 SEASON
MULE DEER RULES

2007 Big Game Seasons

Deer, Elk, Pronghorn

August 2007 - January 2008

Bear, Mountain Lion

August 2007 - July 2008

Including Controlled Hunts for
Deer, Elk, Pronghorn, and Black Bear



photo courtesy of Todd Corseth

Key Dates to Remember in 2007

- 2008 hunting licenses are on sale from December 1, 2007 — December 31, 2008
- Opening day for general rifle deer season in most units: October 10, 2007
- Opening day for general rifle elk season in most units: October 15, 2007
- Opening day for general rifle elk and deer seasons in most backcountry units: September 15, 2007
- Opening day for pronghorn seasons: Archery, August 15, 2007; Controlled hunts, September 25, 2007
- Controlled hunt application period for deer, elk, pronghorn, and fall black bear: May 1—June 5, 2007
- Controlled hunt application period for spring black bear: January 15 — February 15, 2008



You may refer to these links for laws pertaining to this rule book:

Administrative Procedures Act:
<http://adm.idaho.gov/adminrules/rules/idapa1313index.htm>
<http://www3.state.id.us/idstat/TOC/36FTOC.html>



RULES

August 2007
through
July 2008

- Controlled Hunt application period: May 1 - June 5.
- Use for all controlled hunts, including 2008 spring bear.

- Apply early for controlled hunts.

See page 22 for application form.

- **APPLY FOR A SUPER HUNT TAG**

HELP PAY FOR ACCESS YES!
See page 18.

- **NEW! Check out Hunt Planner Maps at our web site!** <http://fishandgame.idaho.gov/ftwis/huntplanner>



2007 DEER HUNTING SEASONS

REGULAR DEER

HOW MANY DEER CAN I HARVEST? In general, the answer is one deer per hunter per year. But a few controlled hunts and depredation hunts offer the opportunity for hunters to harvest additional deer. In addition, deer hunters may purchase leftover nonresident deer tags at the nonresident price to get an opportunity to harvest a second deer in 2007.

No person may take more deer than the number for which he possesses legal tags.

ANTLERED DEER: Only deer with at least one antler longer than three inches may be taken in any season which is open for antlered deer only. In antlered-only seasons, antlers must accompany the carcass while in transit.

ANTLERLESS DEER: Only deer without antlers or with antlers shorter than three inches may be taken in any season which is open for antlerless deer only.

TWO-POINT DEER: Only deer with not more than two points on one side, not including the brow point or tine, and at least one antler longer than three inches may be taken in any season which is open for two-point deer only. A point is an antler projection that is at least one inch long and longer than the width of the projection.

THREE-POINT DEER: Only deer having at least one antler with three or more points, not including the brow point or tine, may be taken in any season which is open for three-point or larger deer only.

FOUR-POINT DEER: Only deer having at least one antler with four or more points, not including the brow point or tine, may be taken in any season which is open for four-point or larger deer only.

TRANSIT: In any hunt with point restrictions, the antlers must accompany the carcass while in transit.

SPECIES IDENTIFICATION: In seasons restricted to mule deer only or white-tailed deer only, if the head is removed, the fully-haired tail must be left naturally attached to the carcass.

EVIDENCE OF SEX — See page 11.

WASTE OF GAME — See page 16.

Any person who receives a controlled hunt permit for deer is prohibited from hunting in any other deer hunt, EXCEPT extra deer tag hunts or by purchasing a leftover nonresident deer tag when available. See below.

MANDATORY REPORT REQUIREMENTS: All deer hunters are required to fill out a Harvest Report within 10 days after harvest. Hunters that do not harvest are required to file a report within 10 days after the close of the hunting season.

NONRESIDENT DEER TAG - USE FOR BLACK BEAR OR MOUNTAIN LION

Nonresident deer tags, EXCLUDING Nonresident Junior Mentored deer tags, are valid to take a black bear or mountain lion instead of a deer where and when the deer tag is valid, and there is an open deer season in that unit; and there is also an open bear season if taking a bear or open mountain lion season if taking a lion in that same unit. Hunters may buy other bear or lion tags, but after the deer tag is used to harvest a deer, black bear, or mountain lion, a second deer tag may not be purchased, except to hunt in an area where the harvest of two deer is allowed, or by purchasing a leftover nonresident deer tag when available.

NOTE: Residents or nonresidents may purchase one unsold general season nonresident deer tag and/or elk tag at the nonresident price starting August 28, to be used as a second tag. The nonresident general season deer tag may also be used to tag a black bear or mountain lion instead of a deer.

ARCHERY & MUZZLELOADER PERMITS

Any person hunting in an archery-only season, including controlled hunts, must have in possession their license with archery permit validation.

Any person hunting in a muzzleloader-only season, including controlled hunts must have in possession their license with muzzleloader permit validation.



Online Hunt Planner

Look for the "plan your hunt" button on the right side of the home page to access the easy-to-use, helpful features of the Idaho Hunt Planner. You can find information such as hunt unit boundaries, printable interactive maps, other hunts open in the same area and much, much more. The Idaho Hunt Planner can help narrow down your hunt area so you can spend more time out in the field where you really want to be, while at the same time saving you valuable fuel.

<http://fishandgame.idaho.gov>

ATTENTION DEER HUNTERS!

Deer hunters can choose either a regular deer tag or a white-tailed deer tag. The regular deer tag is valid for any hunt listed under "2007 Regular Deer Tag Seasons" on pages 25-29.

The white-tailed deer tag is ONLY valid for white-tailed deer. The white-tailed deer tag is valid for any hunt listed under "2007 White-tailed Deer Tag Seasons" on pages 30-32.

Nonresidents: To hunt deer in the Southeast corner of Idaho, units 75, 76, 77, and 78, you must have a nonresident southeast deer tag. The nonresident regular and nonresident white-tailed deer tags are not valid in these units. The nonresident southeast deer tag is not valid in any other units. "2007 Southeast Deer Tag Seasons" are on pages 27 and 29. (2007 Southeast Deer Tags went on sale first-come, first-served December 1, 2006 at 12:00 pm Mountain Time.)

REGULAR DEER

DEER

CHARACTERISTICS OF A MULE DEER

CAUTION!
Antlers on yearling buck white-tailed and mule deer may look similar.

CHARACTERISTICS OF A WHITE-TAILED DEER

DEFINITIONS

Antlered Buck — A deer with an antler or antlers at least three inches in length.

Antlerless — A deer without antlers or with antlers less than three inches in length.

Illustration by Robert Neaves courtesy of Montana Fish, Wildlife & Parks

2007 REGULAR DEER TAG GENERAL ANY WEAPON SEASONS			
Unit(s)	Antlered	Antlerless	Notes
1	Oct 10 - Oct 31 <i>(White-tailed deer ONLY)</i>	Oct 10 - Dec 1 <i>(White-tailed deer ONLY)</i>	
	Nov 1 - Dec 1		
2, 3, 4A, 5, 6	Oct 10 - Nov 9	Oct 10 - Dec 1 <i>(White-tailed deer ONLY)</i>	
	Nov 10 - Dec 1 <i>(White-tailed deer ONLY)</i>		
4, 7, 9	Oct 10 - Nov 9	Oct 10 - Nov 9 <i>(White-tailed deer ONLY)</i>	
8, 8A, 10, 10A, 12, 15, 16	Oct 10 - Nov 3	Oct 10 - Nov 3	

<http://fishandgame.idaho.gov>

REGULAR DEER

Unit(s)	Antlered	Antlerless	Notes
11, 11A	Oct 10 - Nov 3 (White-tailed deer ONLY)	Oct 10 - Nov 3 (White-tailed deer ONLY)	
13, 14, 18	Oct 10 - Nov 3 (White-tailed deer ONLY)	Oct 10 - Oct 16 (White-tailed deer ONLY)	Unit 13 has limited access
16A, 17, 19, 20	Sep 15 - Nov 18	Sep 15 - Nov 18	
19A	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	See note 1, Page 27
20A, 26, 27	Sep 15 - Oct 31	None	
21, 21A, 28, 29, 30, 30A, 36, 36A, 36B, 37, 37A	Oct 10 - Oct 24	None	Motorized Vehicle Restriction Units 29, 30, 30A, 36A, 37, 37A, See note 7, Page 27
22	Oct 10 - Oct 24	Oct 10 - Oct 24 (Youth Hunt ONLY)	See note 1, Page 27
23, 24, 25	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	See notes 1 & 2, Page 27
31, 32, 32A	Oct 10 - Oct 24	Oct 10 - Oct 24 (Youth Hunt ONLY)	See notes 1 & 3, Page 27 Motorized Vehicle Restriction Units 32 & 32A, See note 7, Page 27
33, 34, 35	Oct 10 - Oct 31	None	
39, 43	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	See note 1, Page 27
40, 41	Oct 10 - Oct 23 (Two-point deer ONLY)	Oct 10 - Oct 23 (Youth Hunt ONLY, ONLY in a small portion of these units)	Youth Hunt Area Restrictions: See page 27. Notes 1, 3, 4, and 8 apply. ONLY a small portion of Units 40 & 41 is open for harvest of antlerless deer. Antlerless hunt is Youth ONLY.
42	Oct 10 - Oct 23 (Two-point deer ONLY)	None	
46	Oct 10 - Oct 31	None	See note 3, Page 27
48, 49, 50, 51, 58, 59, 59A	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	See note 1, Page 27 Motorized Vehicle Restriction, See note 7, Page 27
52A	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	See note 1, Page 27
56	Oct 10 - Oct 16	None	Motorized Vehicle Restriction, See note 7, Page 27
	Oct 17 - Oct 31 (Two-point deer ONLY)		
60, 61, 62, 62A, 63, 64, 65	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	See notes 1 & 4, Page 27
60A	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	See notes 1 & 5, Page 27
66, 69	Oct 10 - Oct 31	None	Motorized Vehicle Restriction, See note 7, Page 27
66A	Oct 10 - Oct 31	None	
67	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	See notes 1 & 6, Page 27
68, 71, 72, 73A, 74, 75, 76, 77, 78	Oct 10 - Oct 31	None	Motorized Vehicle Restriction Units 75, 77, 78, See note 7, Page 27
70, 73	Oct 10 - Oct 16 (4-point or larger deer ONLY)	None	Motorized Vehicle Restriction, See note 7, Page 27

Notes:

- 1 — YOUTH HUNTS: ONLY hunters 12 - 17 years of age with a valid license and tag may hunt either sex deer in this hunt.
- 2 — Short-range weapons ONLY in that portion of Unit 24 within the following boundary: Beginning in McCall at the junction of State Highway 55 and Boydston Street, then south on Boydston Street to West Valley Road, then west and south along West Valley Road and West Mountain Road to Cabarton Road, then north on Cabarton Road to State Highway 55, then north on State Highway 55 to Farm-To-Market Road, then north on Farm-To-Market Road to Elo Road, then west on Elo Road to State Highway 55, then north on State Highway 55 to the point of beginning.
- 3 — Short-range weapons ONLY on the islands in the Snake River.
- 4 — Short-range weapons ONLY on CJ Strike, Mud Lake, and Chester Wetlands Wildlife Management Areas.
- 5 — Short-range weapons ONLY in that portion of Unit 60A south and east of the North (Henrys) Fork Snake River, and that portion within one mile north and west of the North Fork Snake River.
- 6 — Short-range weapons ONLY in that portion of Unit 67 south and west of State Highway 26.
- 7 — Motorized vehicle use as an aid to hunting for wildlife is restricted to established roadways open to motorized vehicle traffic capable of travel by full-sized automobiles. A full-sized automobile shall be defined as any motorized vehicle with a gross vehicle weight in excess of 1500 pounds. See page 14.
- 8 — Youth Hunt Area: Only that portion of Units 40 and 41 within the following boundary are open to youth antlerless hunting - starting at the Oregon border on the Snake River then upstream to the C.J. Strike Dam Road then south on C.J. Strike Dam Road to Highway 78 at Rim Rock High School, then east on Highway 78 to Highway 51, then south on Highway 51 to the Shoofly Cut-off Road, then west on the Shoofly Cut-off Road to the Mudflat Road, then north on the Mudflat Road to Highway 78, continue west on Highway 78 to the powerline that crosses the Snake River approximately 3 miles south of the Walter's Ferry Bridge at the 22.5 mile marker, then west along the powerline to the Oregon border, then north along the Oregon border to the Snake River, the point of beginning; AND on cultivated fields in that portion of Unit 40 no more than 5 miles south or west of Highway 78. Map available at Southwest Region Office and the Department website (<http://fishandgame.idaho.gov>).

**REGULAR
DEER**

**The Idaho Department of Fish and Game
is making a commitment to enhance Idaho's mule deer populations.
The Mule Deer Initiative is a focused and increased effort by Fish and Game to:**

- **Protect and Improve Habitat** • **Improve Mule Deer Numbers** • **Increase Hunter Satisfaction**

Why do we need the Mule Deer Initiative?

Mule deer are an important wildlife resource to Idaho's hunters and citizens. Southern and eastern Idaho have traditionally been well known for abundant mule deer populations providing plenty of hunting opportunity and big bucks. Since 1992, mule deer populations in portions of eastern, southeastern, and south-central Idaho are lower than desired by both Department biologists and hunters. The Department plans to intensively manage deer to increase the number of mule deer and increase the proportion of mature bucks.

What is being done?

Habitat loss, predators, drought, changes in hunting technique, and access are just some of the factors influencing mule deer populations and the hunting experience. Deer managers have no control over weather, climate, and human population growth. However, there is opportunity for deer managers to improve existing habitat, reduce the impact of predators, reduce elk occupation of important deer habitats, and implement hunting season and rule changes to improve mule deer hunter experience. Just as there is no single reason for the decline in mule deer across the west, there

is no single solution. The Mule Deer Initiative includes habitat improvement projects, population management, stepped up enforcement efforts, predator control, access management, and public involvement – all in an effort to increase mule deer recruitment and survival, increase hunter satisfaction, and protect and improve habitat.

Where can I find out more?

Visit the Idaho Fish and Game website at <http://fishandgame.idaho.gov/mdi> for more information about the Mule Deer Initiative. While there, you can sign up for electronic updates on news and information about mule deer in Idaho.

How can I help?

Whether you are a landowner who wants tips on how to help mule deer or a hunter who wants to assist on habitat improvement projects, you are key to the success of the Mule Deer Initiative. For information on what you can do to help mule deer, visit the fish and game website at <http://fishandgame.idaho.gov/mdi>.



2007 REGULAR DEER TAG GENERAL DEER ARCHERY SEASONS Archery Permit Required			
Unit(s)	Antlered	Antlerless	Notes
1	Aug 30 - Sep 30	Aug 30 - Sep 30 <i>(White-tailed deer ONLY)</i>	
	Dec 10 - Dec 23	Dec 10 - Dec 23 <i>(White-tailed deer ONLY)</i>	
2	Aug 30 - Sep 30	Aug 30 - Sep 30 <i>(White-tailed deer ONLY)</i>	<i>See note 1, Page 29</i>
	Nov 1 - Dec 1	Nov 1 - Dec 1 <i>(White-tailed deer ONLY)</i>	<i>See note 2, Page 29</i>
	Dec 10 - Dec 23	Dec 10 - Dec 23 <i>(White-tailed deer ONLY)</i>	<i>See note 1, Page 29</i>
3, 4, 4A, 5, 6, 7, 9	Aug 30 - Sep 30	Aug 30 - Sep 30 <i>(White-tailed deer ONLY)</i>	
	Dec 10 - Dec 23	Dec 10 - Dec 23 <i>(White-tailed deer ONLY)</i>	
8, 8A, 10, 10A, 11A, 12, 15, 19A, 21, 21A	Aug 30 - Sep 30	Aug 30 - Sep 30	
29, 30, 30A, 36A, 37, 37A	Aug 30 - Sep 30	Aug 30 - Sep 30	<i>Motorized Vehicle Restriction, See note 5, Page 29</i>
22, 23, 24, 25, 36, 36B	Aug 30 - Sep 30	Aug 30 - Sep 30	
28	Dec 1 - Dec 31	Dec 1 - Dec 31	
31, 32, 32A, 33, 34, 35	Aug 30 - Sep 30	Aug 30 - Sep 30	<i>Motorized Vehicle Restriction Units 32 & 32A, See note 5, Page 29</i>
38	Aug 30 - Sep 30	Aug 30 - Sep 30	<i>See note 3, Page 29</i>
39	Nov 10 - Nov 30	Nov 10 - Nov 30	<i>See note 6, Page 29 PART OF UNIT CLOSED</i>
40, 41, 42	Aug 30 - Sep 30 <i>(Two-point deer ONLY)</i>	Aug 30 - Sep 30	
43, 46, 52A	Aug 30 - Sep 30	Aug 30 - Sep 30	
47, 48, 49, 50, 51	Aug 30 - Sep 30	Aug 30 - Sep 30	<i>Motorized Vehicle Restriction, See note 5, Page 29</i>
53	Aug 30 - Dec 19	Aug 30 - Dec 19	<i>See note 4, Page 29 Motorized Vehicle Restriction, See note 5, Page 29</i>
54	Aug 30 - Sep 30	Aug 30 - Sep 30	
55	Nov 25 - Dec 19	Nov 25 - Dec 19	
56, 57, 58, 59, 59A	Aug 30 - Sep 30	Aug 30 - Sep 30	<i>Motorized Vehicle Restriction, See note 5, Page 29</i>
60, 60A, 62, 64, 65, 66, 67, 69	Aug 30 - Sep 30	Aug 30 - Sep 30	<i>Motorized Vehicle Restriction, Units 66 & 69, See note 5, Page 29</i>
	Nov 1 - Dec 19 <i>(White-tailed deer ONLY)</i>	Nov 1 - Dec 19 <i>(White-tailed deer ONLY)</i>	
61, 62A, 63A	Aug 30 - Sep 30	Aug 30 - Sep 30	
63	Aug 30 - Sep 30	Aug 30 - Sep 30	
	Nov 1 - Dec 19	Nov 1 - Dec 19	
66A, 68, 71, 72, 73A, 74, 75, 76, 77, 78	Aug 30 - Sep 30	Aug 30 - Sep 30	<i>Motorized Vehicle Restriction, Units 75, 77, 78, See note 5, Page 29</i>
70, 73	Aug 30 - Sep 30 <i>(4-point or larger deer ONLY)</i>	Aug 30 - Sep 30	<i>Motorized Vehicle Restriction, See note 5, Page 29</i>

continued


2007 REGULAR DEER TAG GENERAL DEER MUZZLELOADER SEASONS			
Muzzleloader Permit Required			
Unit(s)	Antlered	Antlerless	Notes
39	None	Sep 8 - Sep 30	Muzzleloader ONLY Motorized Vehicle Restriction, See note 5, Page 29

2007 REGULAR DEER TAG GENERAL DEER SHORT RANGE WEAPON SEASONS			
Unit(s)	Antlered	Antlerless	Notes
4, 7, 9	Nov 10 - Dec 1	Nov 10 - Dec 1 (White-tailed deer ONLY)	
38	Oct 10 - Oct 31	Oct 10 - Nov 24	See note 3, Page 29
53	Oct 10 - Oct 31	Oct 10 - Oct 31	See note 7, Page 29 Motorized Vehicle Restriction, See note 5, Page 29

REGULAR DEER

Notes:

- 1 — Farragut State Park and Farragut Wildlife Management Area are CLOSED.
- 2 — Farragut State Park and Farragut Wildlife Management Area ONLY.
- 3 — That portion of Unit 38 within the Lake Lowell Sector of the Deer Flat National Wildlife Refuge is CLOSED.
- 4 — That portion of Unit 53 east of U.S. Highway 93 is OPEN.
- 5 — Motorized vehicle use as an aid to hunting for wildlife is restricted to established roadways open to motorized vehicle traffic capable of travel by full-sized automobiles. A full-sized automobile shall be defined as any motorized vehicle with a gross vehicle weight in excess of 1500 pounds. See page 14.
- 6 — AREA CLOSURE: That portion of Unit 39 within Ada County AND that portion of Unit 39 within the following boundary: Beginning at the intersection of state highway 21 and the Middle Fork Boise River road (Forest Rd 268), east on Forest Rd 268 to Cottonwood Creek-Thorn Creek Road (Forest Rd 377), north and west on Forest Road 377 to State Highway 21, south and west on Highway 21 to the point of beginning is CLOSED.
- 7 — Short-range weapons ONLY in that portion of Unit 53 west of U. S. Highway 93. Archery ONLY east of U.S. Highway 93.

 2007 CONTROLLED DEER HUNTS (13,417 Permits Plus Unlimited Permits) ANTLERED DEER				
Hunt No.	Controlled Hunt Areas	Permits	Season Dates	Notes
1001	1* (see pg 37)	35	Aug 30 - Dec 1	
1002	11	74	Oct 10 - Nov 3	<i>Mule deer ONLY</i>
1003	11	35	Nov 10 - Nov 24	<i>Mule deer ONLY</i>
1004	11A	63	Oct 10 - Nov 3	<i>Mule deer ONLY, Limited Access</i>
1005	13	200	Oct 10 - Nov 3	<i>See note 1, Page 36, Mule deer ONLY</i>
1006	14	180	Oct 10 - Nov 3	<i>Mule deer ONLY</i>
1007	18	120	Oct 10 - Nov 3	<i>Mule deer ONLY</i>
1008	19A	10	Nov 10 - Nov 24	
1009	20A	Unlimited	Nov 1 - Nov 18	
1010	22	40	Nov 10 - Nov 24	
1011	23	25	Nov 10 - Nov 24	
1012	25	10	Nov 10 - Nov 24	
1013	26	Unlimited	Nov 1 - Nov 18	
1014	27	Unlimited	Nov 1 - Nov 18	<i>3-point or larger deer ONLY</i>
1015	31	30	Nov 10 - Nov 24	
1016	32	40	Nov 10 - Nov 24	<i>Motorized Vehicle Restriction, See note 3, Page 36</i>
1017	32A	30	Nov 10 - Nov 24	<i>Motorized Vehicle Restriction, See note 3, Page 36</i>
1018	39-1	199	Aug 15 - Sep 24	
1019	40-1	195	Nov 10 - Nov 24	
1020	41	100	Nov 10 - Nov 24	<i>See note 5, Page 36</i>
1021	42	74	Nov 10 - Nov 24	
1022	44-1	225	Oct 5 - Nov 9	
1023	45	75	Oct 15 - Nov 5	<i>Motorized Vehicle Restriction, See note 3, Page 36</i>
1024	47-1	90	Oct 5 - Oct 31	<i>Motorized Vehicle Restriction, See note 3, Page 36</i>
1025	47-2* (see pg 37)	10	Nov 10 - Nov 24	<i>Motorized Vehicle Restriction, See note 3, Page 36</i>
1026	48	10	Nov 10 - Nov 24	<i>Motorized Vehicle Restriction, See note 3, Page 36</i>
1027	49	10	Nov 10 - Nov 24	<i>Motorized Vehicle Restriction, See note 3, Page 36</i>
1028	50-1	10	Nov 1 - Nov 30	<i>Motorized Vehicle Restriction, See note 3, Page 36</i>
1029	52-1	50	Oct 15 - Nov 5	<i>Motorized Vehicle Restriction, See note 3, Page 36</i>
1030	54	600	Oct 5 - Oct 31	
1031	54	20	Nov 10 - Nov 24	
1032	55	25	Aug 15 - Sep 24	
1033	55	450	Oct 5 - Oct 31	
1034	57	109	Oct 5 - Oct 31	<i>Motorized Vehicle Restriction, See note 3, Page 36</i>
1035	57	10	Nov 10 - Nov 24	<i>Motorized Vehicle Restriction, See note 3, Page 36</i>
1036	58* (see pg 37)	10	Nov 1 - Nov 30	<i>Motorized Vehicle Restriction, See note 3, Page 36</i>
1037	60-1* (see pg 37)	50	Nov 1 - Nov 30	<i>See note 5, Page 36</i>
1038	62	30	Nov 1 - Nov 30	
1039	66	10	Nov 1 - Nov 30	<i>Motorized Vehicle Restriction, See note 3, Page 36</i>
1040	67	40	Nov 1 - Nov 30	
1041	69	10	Nov 1 - Nov 30	<i>Motorized Vehicle Restriction, See note 3, Page 36</i>

CONTROLLED DEER

* See controlled hunt area descriptions. This hunt includes partial units, other units or parts of other units.

2007 CONTROLLED HUNTS ANTLERLESS DEER				
Hunt No.	Controlled Hunt Areas	Permits	Season Dates	Notes
1042	22	350	Oct 10 - Oct 24	
1043	31	350	Oct 10 - Oct 24	
1044	32	350	Oct 10 - Oct 24	Motorized Vehicle Restriction, See note 3, Page 36
1045	32A	150	Oct 10 - Oct 24	Motorized Vehicle Restriction, See note 3, Page 36
1046	39-2	1200	Oct 10 - Oct 31	
1047	43	700	Oct 10 - Oct 31	
1048	44-1	450	Oct 15 - Nov 9	
1049	45	700	Nov 15 - Nov 30	Motorized Vehicle Restriction, See note 3, Page 36
1050	48	50	Oct 10 - Oct 31	Motorized Vehicle Restriction, See note 3, Page 36
1051	49	300	Oct 10 - Oct 31	Motorized Vehicle Restriction, See note 3, Page 36
1052	50-2	300	Nov 15 - Nov 30	Motorized Vehicle Restriction, See note 3, Page 36
1053	52-3	200	Nov 15 - Nov 30	Motorized Vehicle Restriction, See note 3, Page 36
1054	55	30	Aug 15 - Sep 30	Landowner Permission Required, Private Land ONLY
1055	55	100	Nov 1 - Nov 14	
1056	60-1* (see pg 37)	200	Nov 1 - Nov 30	See note 5, Page 36

2007 CONTROLLED HUNTS EITHER SEX DEER				
Hunt No.	Controlled Hunt Areas	Permits	Season Dates	Notes
1057	60-2* (see pg 37)	600	Oct 5 - Nov 17 Nov 18 - Nov 30	Antlerless ONLY - Nov 18 - Nov 30 See note 5, Page 36
1058	62	100	Oct 5 - Nov 8	
1059	67	75	Oct 5 - Nov 8	

2007 CONTROLLED HUNTS ARCHERY DEER - Archery Permit Required				
Hunt No.	Controlled Hunt Areas	Permits	Season Dates	Notes
1060	39-3	125	Nov 16 - Dec 16	Either sex, See note 4, Page 36 Roads on Boise River WMA closed to Motorized Travel
1061	40-2* (see pg 37)	25	Aug 15 - Sep 30	Either sex
1062	68A	Unlimited	Aug 30 - Dec 19	Either sex
	72	Unlimited	Dec 1 - Dec 19	Antlered ONLY, Motorized Vehicle Restriction, See note 3, Page 36

2007 CONTROLLED HUNTS YOUTH DEER				
Hunt No.	Controlled Hunt Areas	Permits	Season Dates	Notes
1063	44-2* (see pg 37)	400	Nov 15 - Nov 30	Antlerless ONLY, See note 2, Page 36 Motorized Vehicle Restriction Units 45 & 52, See note 3, Page 36
1064	46* (see pg 37)	400	Oct 5 - Oct 31	Either sex, See note 2, Page 36 Motorized Vehicle Restriction Unit 47, 56, 57, See note 3, Page 36
1065	66A* (see pg 37)	500	Oct 10 - Oct 31	Either sex, See note 2, Page 36 Motorized Vehicle Restriction Units 70, 73, 75, 77, 78 See note 3, Page 36 Antlered deer limited to 4-point or larger in Units 70 & 73 Units 70 & 73 ONLY open Oct 10 - Oct 16 Antlered deer limited to 2-point or smaller in Unit 56 from Oct 17 - Oct 31

* See controlled hunt area descriptions. This hunt includes partial units, other units or parts of other units.

2007 CONTROLLED HUNTS MUZZLELOADER DEER - Muzzleloader Permit Required				
Hunt No.	Controlled Hunt Areas	Permits	Season Dates	Notes
1066	33* (see pg 37)	149	Nov 10 - Nov 30	Antlered ONLY
1067	37* (see pg 37)	73	Nov 25 - Dec 9	Antlered ONLY Motorized Vehicle Restriction, See note 3, Page 36
1068	43	125	Oct 1 - Oct 9	
1069	45	30	Oct 1 - Oct 14	Antlered ONLY, Motorized Vehicle Restriction, See note 3, Page 36
1070	51* (see pg 37)	100	Nov 1 - Nov 30	Either sex Motorized Vehicle Restriction, See note 3, Page 36
1071	52-2	125	Oct 15 - Nov 14	Either sex, Motorized Vehicle Restriction, See note 3, Page 36
1072	52A	75	Nov 10 - Nov 24	Either sex, Motorized Vehicle Restriction, See note 3, Page 36
1073	61	Unlimited	Nov 11 - Dec 9	Either sex
1074	64* (see pg 37)	50	Nov 1 - Nov 30	Either sex

CONTROLLED DEER

2007 CONTROLLED HUNTS EXTRA ANTLERLESS DEER				
Hunt No.	Controlled Hunt Areas	Permits	Season Dates	Notes
1075	1X	300	Aug 30 - Sep 30	Archery ONLY, White-tailed deer ONLY
			Oct 10 - Dec 1	White-tailed deer ONLY
1076	2X	150	Aug 30 - Sep 30	Archery ONLY, White-tailed deer ONLY
			Oct 10 - Dec 1	White-tailed deer ONLY
1077	3X* (see pg 37)	100	Aug 30 - Sep 30	Archery ONLY, White-tailed deer ONLY
			Oct 10 - Dec 1	White-tailed deer ONLY
1078	5X	100	Aug 30 - Sep 30	Archery ONLY, White-tailed deer ONLY
			Oct 10 - Dec 1	White-tailed deer ONLY
1079	8X	300	Aug 30 - Sep 30	Archery ONLY, White-tailed deer ONLY
			Oct 10 - Dec 1	White-tailed deer ONLY
1080	8AX* (see pg 37)	300	Aug 30 - Sep 30	Archery ONLY, White-tailed deer ONLY
			Oct 10 - Dec 1	White-tailed deer ONLY
			Dec 2 - Dec 14	Muzzleloader ONLY, White-tailed deer ONLY
1081	10AX* (see pg 37)	400	Aug 30 - Sep 30	Archery ONLY, White-tailed deer ONLY
			Oct 10 - Nov 20	White-tailed deer ONLY
			Nov 21 - Dec 9	Short Range Weapon ONLY, White-tailed deer ONLY
1082	11AX* (see pg 37)	600	Aug 30 - Sep 30	Archery ONLY, Unit 11A ONLY
			Oct 10 - Nov 20	Mule Deer or White-tailed Deer
1083	15X* (see pg 37)	200	Aug 30 - Sep 30	Archery ONLY, White-tailed deer ONLY, Unit 15 portion ONLY
			Oct 10 - Nov 20	White-tailed deer ONLY
			Nov 21 - Dec 9	Short Range Weapon ONLY, White-tailed deer ONLY, Unit 16 portion ONLY
			Dec 5 - Dec 20	Archery ONLY, White-tailed deer ONLY, Unit 15 portion ONLY
1084	21X* (see pg 37)	150	Sep 1 - Dec 31	Short Range Weapon ONLY, Private land ONLY, Limited Access
1085	23X* (see pg 37)	100	Aug 15 - Sep 30	Short-range weapons ONLY, White-tailed deer ONLY
			Oct 10 - Nov 3	White-tailed deer ONLY

* See controlled hunt area descriptions. This hunt includes partial units, other units or parts of other units.

2007 CONTROLLED HUNTS EXTRA ANTLEERLESS DEER				
Hunt No.	Controlled Hunt Areas	Permits	Season Dates	Notes
1086	60X* (see pg 37)	1,000	Aug 30 - Sep 30	Archery ONLY, White-tailed deer ONLY, Motorized Vehicle Restriction in Units 66 & 69, See note 3, Page 36
			Oct 10 - Oct 31	White-tailed deer ONLY, Motorized Vehicle Restriction in Units 66 & 69, See note 3, Page 36 See notes 5, 6, 7, Page 36
			Nov 1 - Dec 19	Archery ONLY, White-tailed deer, ONLY, Motorized Vehicle Restriction in Units 66 & 69, See note 3, Page 36

2007 CONTROLLED HUNTS OUTFITTER ALLOCATION DEER - Antlered Deer Only				
Hunt No.	Controlled Hunt Areas	Permits	Season Dates	Notes
1087	1* (see pg 37)	1	Aug 30 - Dec 1	
1088	11	1	Oct 10 - Nov 3	Antlered Mule deer ONLY
1089	11A	2	Oct 10 - Nov 3	Antlered Mule deer ONLY
1090	13	37	Oct 10 - Nov 3	Antlered Mule deer ONLY
1091	14	22	Oct 10 - Nov 3	Antlered Mule deer ONLY
1092	18	9	Oct 10 - Nov 3	Antlered Mule deer ONLY
1093	33	1	Nov 10 - Nov 24	Muzzleloader ONLY
1094	37* (see pg 37)	2	Nov 25 - Dec 9	Antlered ONLY, Muzzleloader ONLY Motorized Vehicle Restriction, See note 3, Page 36
1095	39-1	1	Aug 15 - Sep 24	
1096	40-1	5	Nov 10 - Nov 24	
1097	42	1	Nov 10 - Nov 24	
1098	45	2	Oct 15 - Nov 5	Motorized Vehicle Restriction, See note 3, Page 36
1099	46*	1	Oct 5 - Oct 31	Motorized Vehicle Restriction in Units 47 & 57, See note 3, Page 36
1100	47-1	3	Oct 5 - Oct 31	Motorized Vehicle Restriction, See note 3, Page 36
1101	50-1	1	Nov 1 - Nov 30	Motorized Vehicle Restriction, See note 3, Page 36
1102	55	1	Oct 5 - Oct 31	
1103	57	1	Oct 5 - Oct 31	Motorized Vehicle Restriction, See note 3, Page 36

Prior to submitting an application for an outfitter allocated controlled hunt, you must have a written agreement with an outfitter licensed in the hunt area. Successful applicants of an outfitter allocated controlled hunt must hunt with an outfitter licensed for the hunt area. The outfitter must purchase your permit and tag by Aug. 20. Successful applicants authorize the Department to provide names and addresses to the outfitter(s) licensed for that controlled hunt. For a list of licensed outfitters in the applicable controlled hunt area, a sample written agreement, and additional information contact the Idaho Outfitters and Guides Licensing Board at their website - www.state.id.us/oglb or by calling (208) 327-7380.

Notes:

- 1 — This hunt has very limited access due to few roads, and private property.
- 2 — Youth Hunt: ONLY hunters 12 - 17 years of age with a valid license may apply for this hunt.
- 3 — Motorized vehicle use as an aid to hunting for wildlife is restricted to established roadways open to motorized vehicle traffic capable of travel by full-sized automobiles. A full-sized automobile shall be defined as any motorized vehicle with a gross vehicle weight in excess of 1500 pounds. See page 14.
- 4 — Mandatory class required - Anyone drawing a deer controlled archery-only hunt permit for this hunt must satisfactorily complete a mandatory hunter education course. The course will be administered by the Southwest Region and will include the hunt boundaries and legal restrictions, and will emphasize proper hunter ethics. Bowhunter education required.
- 5 — Short-range weapons ONLY on CJ Strike, Mud Lake, Chester Wetlands Wildlife Management Areas, and all of Unit 63A.
- 6 — Short-range weapons ONLY in that portion of Unit 60A south and east of the North (Henry's) Fork Snake River, and that portion within one mile north and west of the North Fork Snake River.
- 7 — Short-range weapons ONLY in that portion of Unit 67 south and west of State Highway 26.

* See controlled hunt area descriptions. This hunt includes partial units, other units or parts of other units.

DEER CONTROLLED HUNT AREA DESCRIPTIONS

Hunt Area 1 — All of Unit 1 EXCLUDING the Kootenai River drainage.

Hunt Area 1X — All of Unit 1.

Hunt Area 2X — All of Unit 2.

Hunt Area 3X — Private land within that portion of Unit 3 north of Interstate 90.

Hunt Area 5X — All of Unit 5.

Hunt Area 8X — All of Unit 8.

Hunt Area 8AX — That portion of Unit 8A within one mile of private land. (For the purpose of this hunt, 'private land' does not include corporate timberlands).

Hunt Area 10AX — That portion of 10A within one mile of private land. (For the purpose of this hunt, 'private land' does not include corporate timberlands)

Hunt Area 11 — All of Unit 11.

Hunt Area 11A — All of Unit 11A.

Hunt Areas 11AX — All of Unit 11A and that portion of Unit 14 north and west of U.S. Highway 95 and Whitebird Creek.

Hunt Area 13 — All of Unit 13.

Hunt Area 14 — All of Unit 14.

Hunt Area 15X — Within one mile of private land in the following areas: That portion of Unit 15 in the South Fork Clearwater River drainage downstream from and including the Earthquake Creek and Dump Creek drainages below milepost 12 on State Highway 14; and Unit 16 EXCLUDING the Selway River drainage.

Hunt Area 18 — All of Unit 18.

Hunt Area 19A — All of Unit 19A.

Hunt Area 20A — All of Unit 20A.

Hunt Area 21X — Private land within Units 21, 21A, 28, 29, 30, 30A, 36A, 36B, 37, and 37A.

Hunt Area 22 — All of Unit 22.

Hunt Area 23 — All of Unit 23.

Hunt Area 23X — That portion of Unit 23 within the Little Salmon River drainage, upstream from and including the Big Creek drainage on the east side, and upstream from but EXCLUDING the Mud Creek drainage on the west side.

Hunt Area 25 — All of Unit 25.

Hunt Area 26 — All of Unit 26.

Hunt Area 27 — All of Unit 27.

Hunt Area 31 — All of Unit 31.

Hunt Area 32 — All of Unit 32.

Hunt Area 32A — All of Unit 32A.

Hunt Area 33 — All of Units 33 and 35, and that portion of Unit 34 south and west of the Landmark-Stanley Road.

Hunt Area 37 — All of Units 37 and 37A.

Hunt Area 39-1 — All of Unit 39.

Hunt Area 39-2 — All of Unit 39 EXCEPT that portion of Unit 39 south and east of the Blacks Creek Road and south of the South Fork of the Boise River.

Hunt Area 39-3 — That portion of Unit 39 within the following boundary: Beginning at a point 400 yards north of State Highway 21 at the Ada County Line, south and west on a line 400 yards north of State Highway 21 to Warm Springs Avenue, and west on a line 400 yards north of Warm Springs Avenue to the Highlands-Table Rock powerline, north and west on the Highlands-Table Rock

powerline to State Highway 55, north on Highway 55 to the Ada County Line, and southeast on the Ada County Line to the point of beginning.

Hunt Area 40-1 — All of Unit 40.

Hunt Area 40-2 — All of Units 40, 41, and 42.

Hunt Area 41 — All of Unit 41.

Hunt Area 42 — All of Unit 42.

Hunt Area 43 — All of Unit 43.

Hunt Area 44-1 — All of Unit 44.

Hunt Area 44-2 — All Units of 44, 45, and 52.

Hunt Area 45 — All of Unit 45.

Hunt Area 46 — All of Units 46, 47, 54, 55, 56, and 57.

Hunt Area 47-1 — All of Unit 47.

Hunt Area 47-2 — All of Units 46 and 47.

Hunt Area 48 — All of Unit 48.

Hunt Area 49 — All of Unit 49.

Hunt Area 50-1 — That portion of Unit 50 west of U.S. 93.

Hunt Area 50-2 — All of Unit 50.

Hunt Area 51 — All of Unit 51 and that portion of Unit 50 east of U.S. Highway 93.

Hunt Area 52-1 — That portion of Unit 52 west of State Highway 75.

Hunt Area 52-2 — That portion of Unit 52 east of State Highway 75.

Hunt Area 52-3 — All of Unit 52.

Hunt Area 52A — All of Unit 52A. (Caution: See Craters of the Moon closure, page 9)

Hunt Area 54 — All of Unit 54.

Hunt Area 55 — All of Unit 55. Most of the City of Rocks National Reserve is open to hunting. Information about hunting within the Reserve is available to permittees at IDFG offices and at the National Park Service office in Almo.

Hunt Area 56 — All of Unit 56.

Hunt Area 57 — All of Unit 57.

Hunt Area 58 — All of Units 58, 59, and 59A.

Hunt Area 60-1 — All of Units 60, 62A and that portion of Unit 60A beyond one mile north and west of the North (Henry) Fork of the Snake River.

Hunt Area 60-2 — All of Units 60, 61, and 62A.

Hunt Area 60X — All of Units 60, 60A, 62, 63, 63A, 64, 65, 66, 67 and 69.

Hunt Area 61 — All of Unit 61.

Hunt Area 62 — All of Unit 62.

Hunt Area 64 — All of Units 64 and 65.

Hunt Area 66 — All of Unit 66.

Hunt Area 66A — All of Units 66A, 70, 71, 72, 73, 73A, 74, 75, 76, 77 and 78.

Hunt Area 67 — All of Unit 67.

Hunt Area 68A — All of Unit 68A.

Hunt Area 69 — All of Unit 69.

Hunt Area 72 — All of Unit 72.

CONTROLLED
DEER

Submitted by:

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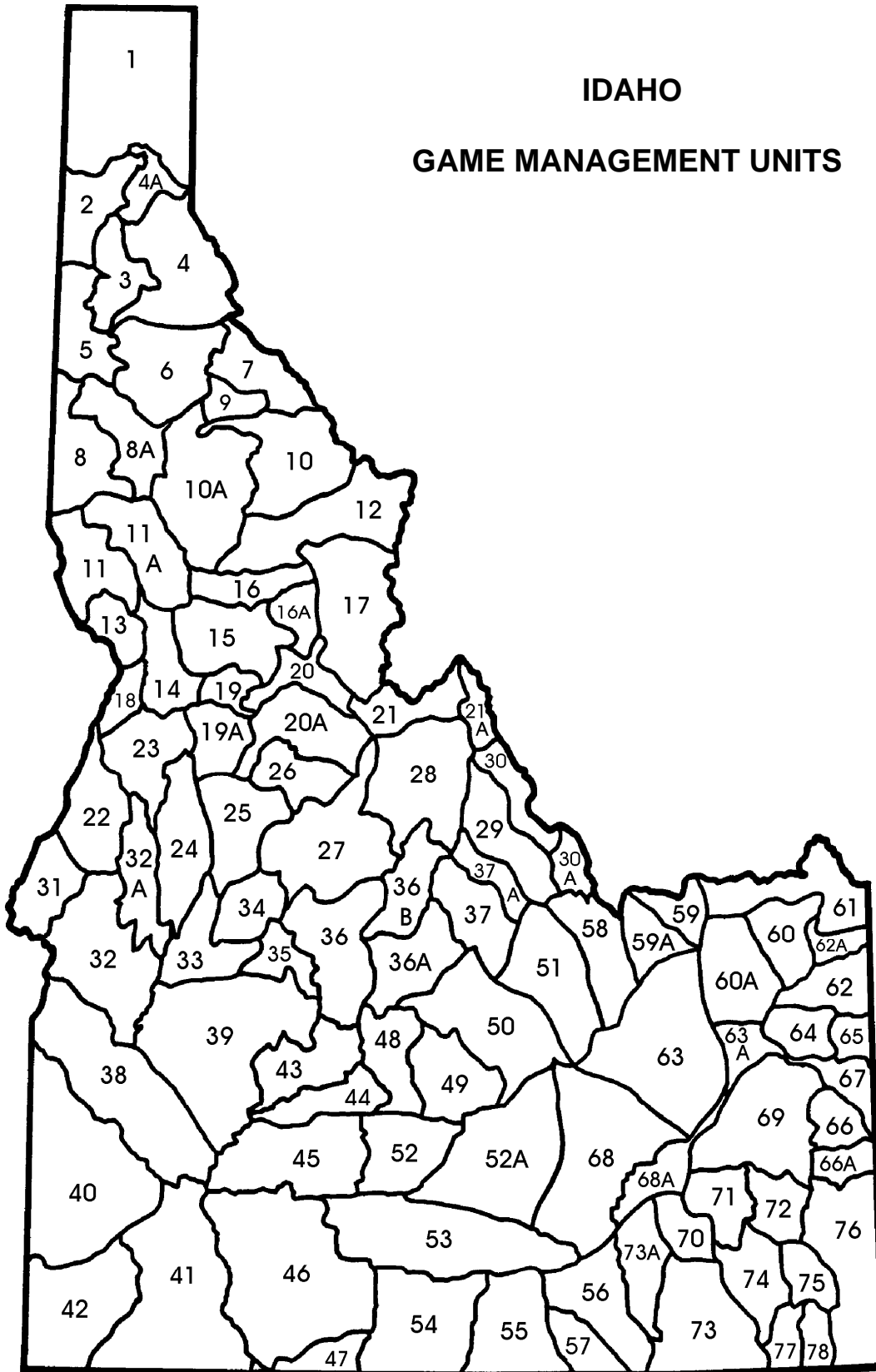
Approved by: IDAHO DEPARTMENT OF FISH AND GAME

Dale E. Towell
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IDAHO

GAME MANAGEMENT UNITS



FEDERAL AID IN WILDLIFE RESTORATION

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

