

EXHIBIT 1

Idaho Wolf Population Management Plan:
2008-2012, Idaho Fish and Game Commission
March 6, 2008

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2008-2012



Idaho Department of Fish and Game
600 South Walnut Street
Boise, Idaho

As adopted March 6, 2008

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Wolves in Idaho and the West are very controversial and we received comments from hundreds of people regarding the plan and wolf management in general. We appreciate each and every one for their passion on this issue, and we can only hope that our efforts toward quality management address most of their issues over time. Though we know we will not please everyone, this plan constitutes our best effort to establish a state wolf population management plan that will ensure the continued existence of a viable wolf population within Idaho.

1. INTRODUCTION

Purpose and Scope

Delisting of wolves within the Northern Rocky Mountains (NRM) has been an ongoing process since 2002, and recently reached a nexus when the USFWS published a proposed delisting rule 8 February 2007 (USFWS 2007a) and a final delisting rule 27 February 2008. The rule will take effect 30 days following publication in the Federal Register. The purpose of this Wolf Population Management Plan (Idaho Department of Fish and Game [IDFG] Plan) is to provide a management framework for state management of the gray wolf (*Canis lupus*) population for the 5-year period following delisting. Consistent with the delisting rule, the state goal is to ensure the long-term viability of the gray wolf population. The metric for the term of this plan will be to sustain the wolf population at 2005 to 2007 levels (518-732). Research and scientific adaptive management will play an integral role in learning about wolf population management and helping guide management efforts into the future.

The wolf plan is patterned after other IDFG big game species plans. Under Department policy, all IDFG management plans must follow guidelines set forth in the IDFG strategic plan called the “Compass.”

In March 2002 the Idaho Legislative Wolf Oversight Committee (2002) developed the Idaho Wolf Conservation and Management Plan (2002 State Plan), which is an overarching document that was finalized and amended by the 56th Idaho Legislature. The 2002 State Plan identifies broad guidelines for wolf management after the species is removed from Endangered Species Act (ESA) protections. These guidelines listed IDFG as the state’s primary wolf manager, responsible for developing population management and monitoring programs. The 2002 State Plan was accepted by the U. S. Fish and Wildlife Service (USFWS) as adequate to assure long-term survival of wolves following delisting. The IDFG Plan was developed to define terms and strategies and identify how objectives and goals of the 2002 State Plan would be accomplished at the field level. The IDFG Plan incorporates the IDFG strategic plan (Compass) and 2002 State Plan broad guidelines and sideboards. The flowchart below (Figure 1.1) defines the relationship. In addition to this plan, the Idaho Fish and Game Commission (IFGC) must approve big game rules that outline specific quotas, seasons, and methods of take for wolf harvest. Rules will be finalized at the May 2008 IFGC meeting and published in July for the fall 2008 hunting season. Harvest for each succeeding year will be finalized during the annual big game rules IFGC meeting in March.

Public Involvement in Plan Development

A public stakeholder working group was formed to ensure that a variety of public interests and issues were included in the planning process and management direction. The working group consisted of representatives from the Idaho Sportsman’s Caucus Alliance Council, Sportsmen for Fish and Wildlife-Idaho, Idaho Conservation League, Defenders of Wildlife, Idaho Cattle Association, Idaho Woolgrowers Association, and Idaho Outfitters and Guides Association (IOGA).

In July 2007, a survey was mailed to 1,000 hunters, 1,000 members of the general public, and 1,000 members of the livestock industry. The survey provides baseline data regarding attitudes about wolves, interest in consumptive and non-consumptive recreation (including willingness to pay), and level of support for various management options (Appendix A). The public was invited to attend open houses throughout the state to review the draft Idaho Wolf Population Management Plan (IDFG Plan). At least 1 open house was held in each IDFG administrative region during November and December 2007, 10 in all; 452 citizens attended to listen to presentations and provide input on the plan. The public comment period that ended 31 December 2007 drew 1,287 comments from groups and individuals which were analyzed for content and opinion (Hinson and Green 2008). The majority of comments, 691, were submitted via the response form set up on the IDFG website. In addition, the Department received 89 letters, 33 e-mails, 2 telephone calls, and 25 forms that were submitted following open houses. There were also 447 faxes of virtually identical content. Lastly, the public was encouraged to attend Commission meetings to voice their opinions, as well as provide written comment. Public input from all these sources was used to develop the final version of the Wolf Population Management Plan.

Relevant Planning Documents

- Idaho wolf conservation and management plan (Idaho Wolf Legislative Oversight Committee 2002)
- The Compass, Idaho Department of Fish and Game strategic plan (IDFG 2005*b*)
- Memorandum of Agreement between State of Idaho and Nez Perce Tribe concerning coordination of wolf conservation and related activities in Idaho (State of Idaho and Nez Perce Tribe 2005)
- Memorandum of Understanding between Idaho Department of Fish and Game and Idaho State Animal Damage Control Board (IDFG and Idaho State Animal Damage Control Board 2005)
- Policy for avian and mammalian predation management (IDFG 2000)
- White-tailed deer, mule deer, and elk management plan (IDFG 1999)
- White-tailed deer management plan 2004-2015 (IDFG 2004)
- Black bear management plan 1999-2010 (IDFG 1998)
- Mountain lion management plan 2002-2010 (Rachael and Nadeau 2002)
- Idaho comprehensive wildlife conservation strategy (IDFG 2005*a*)

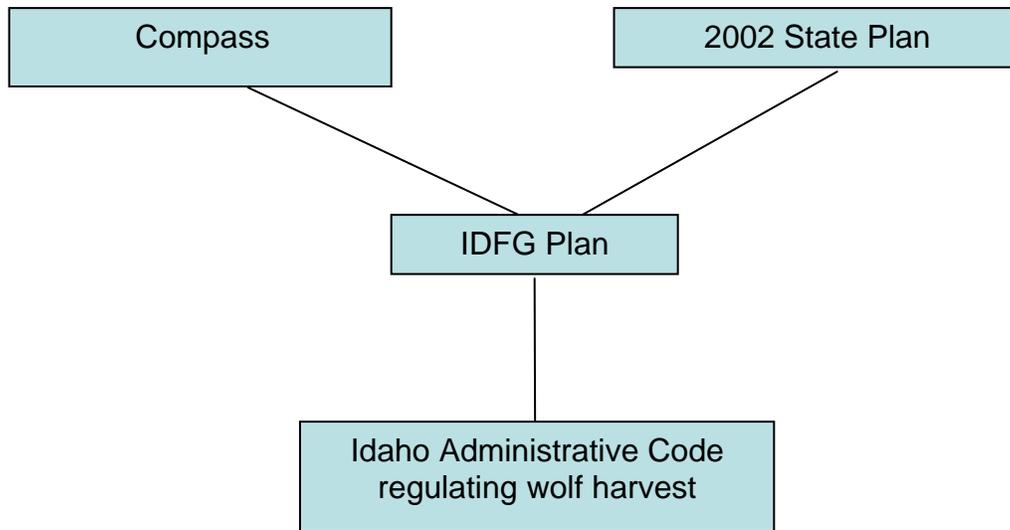


Figure 1.1. Primary planning documents and their relationship.

Goals and Objectives

Under Department policy, several objectives identified in the IDFG strategic plan the “Compass” are incorporated in this IDFG Plan (Tables 4.1 and 5.1). The IDFG Plan objectives are guided by these overarching objectives laid out in the 2002 State Plan:

1. Manage for a self-sustaining, viable wolf population that provides for a diversity of values and uses.
2. Manage wolves as part of the native resident wildlife resource.
3. Provide for resident wolf populations interchange with wolves from adjacent states/provinces as part of a larger metapopulation.
4. Allow wolves to persist where they do not cause excessive conflicts with humans or human activities.
5. Maintain >15 breeding pairs. [Note: The 2002 State Plan used packs and breeding pairs interchangeably and did not define a pack. The delisting rule requires maintenance of ≥ 10 breeding pairs, and that all 3 states maintain ≥ 15 breeding pairs. Therefore, the recovery goals for delisting and state minimum objectives are based on breeding pairs, not packs.]
6. Manage wolf populations so that wolf numbers will not adversely affect big game populations or the economic viability of those who depend on big game animals.
7. Minimize wolf/human conflicts and adverse impacts where they occur.
8. Establish a strong and balanced public education program.

Background

In 1973, the gray wolf was listed under the ESA and protected as an endangered species in the continental United States. The first USFWS wolf recovery plan was developed in 1987 (USFWS 1987) after wolves naturally colonized portions of northwest Montana. The 1987 plan and a

subsequent Environmental Impact Statement (EIS, USFWS 1994) called for natural recovery in northwestern Montana (NWMT) and reintroductions of wolves in 2 nonessential experimental population areas: the Greater Yellowstone Area (GYA), predominantly in Wyoming; and central Idaho (CID). Reintroduced wolves were classified as nonessential experimental populations, providing more latitude in wolf management and conflict resolution under section 10(j) of the ESA (Figure 1.2). In 1995 and 1996, 66 wolves were captured in Alberta and British Columbia, Canada, and released in Yellowstone National Park (YNP; $n = 31$) and central Idaho ($n = 35$).

Idaho contains portions of all 3 northern Rocky Mountain recovery areas (Figure 1.2). Wolves south of Interstate 90 (I-90) are classified and managed as nonessential experimental populations, whereas wolves north of I-90 are classified and managed under a fully endangered ESA classification.

The USFWS entered into a cooperative agreement with the Nez Perce Tribe (NPT) to recover and manage wolves in the CID recovery area. Wildlife Services (WS) assisted the USFWS by investigating depredations and implementing wolf control actions in response to wolf-livestock conflicts.

In 2002, the Idaho Legislature accepted and passed the Idaho Wolf Conservation and Management Plan (http://fishandgame.idaho.gov/cms/wildlife/wolves/state/wolf_plan.pdf). In April 2003, the Legislature authorized IDFG to assist the Governor's Office of Species Conservation in implementing the 2002 State Plan and participate in wolf management with the USFWS and the NPT. In 2003 and 2004, wolves were monitored and managed under cooperative agreements and work plans between cooperating governments and agencies.

In December 2002, the northern Rocky Mountain wolf population attained the population recovery goal of 30 breeding pairs of wolves well distributed throughout the 3 states of Idaho, Montana, and Wyoming for 3 consecutive years (USFWS 2003). Under federal law, initiation of a delisting process could occur when the northern Rocky Mountain wolf population met recovery goals and each state developed USFWS-approved wolf management plans and enacted legislation and regulations to ensure long-term conservation of wolves. By 2003, most federal delisting requirements had been met. Idaho and Montana had USFWS-approved wolf management plans and adequate state laws in place by the time population recovery goals were met in 2002. Wyoming's wolf management plan, however, was not approved by the USFWS. The lack of federal approval and subsequent legal action caused a delay in the delisting process. In response to this delay, the USFWS revised section 10(j) of the ESA rules governing management of nonessential experimental populations in Idaho and Montana in February 2005 (Figure 1.3). The revised 10(j) rule was an interim measure to provide Idaho and Montana with more local wolf management authority pending resolution of Wyoming's situation.

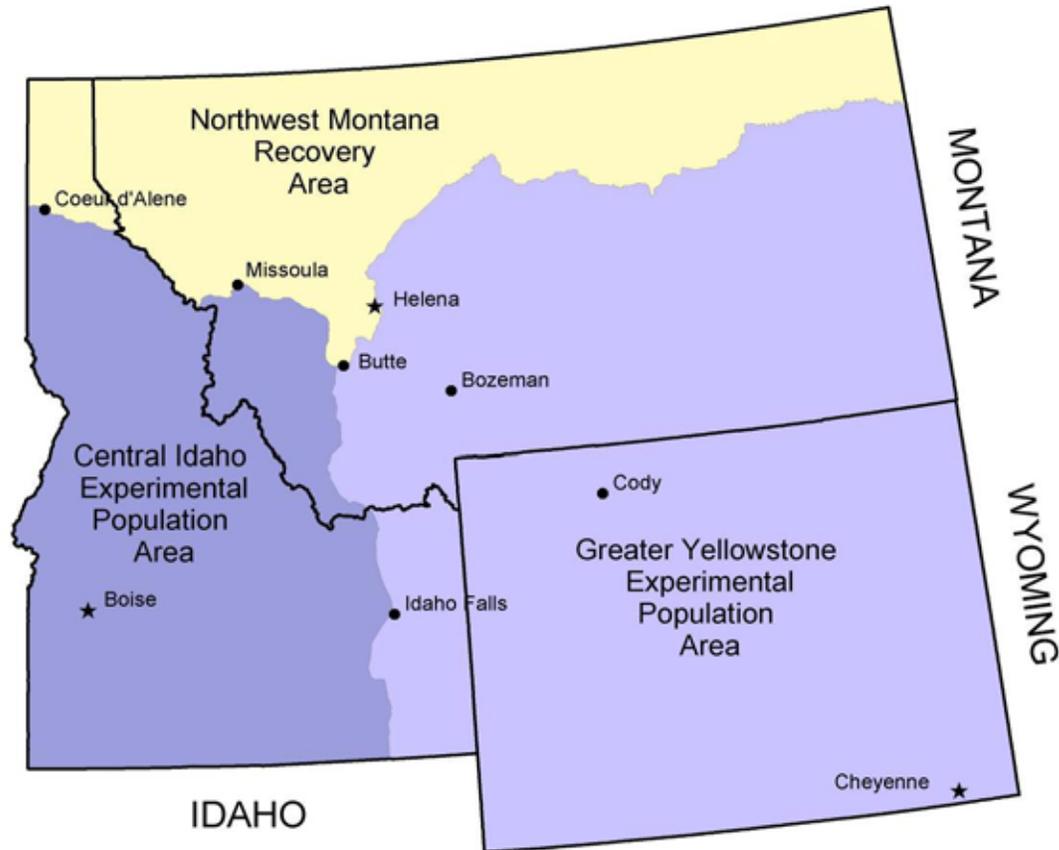


Figure 1.2. Recovery areas established by the USFWS to restore gray wolf populations in the northern Rocky Mountains of Idaho, Montana, and Wyoming.

In January 2006, the Secretary of Interior and the Governor of Idaho signed a Memorandum of Agreement (MOA) that transferred most management authorities previously held by the USFWS to Idaho. The State of Idaho currently oversees daily management of wolves in Idaho and coordinates among agencies to fulfill obligations under the revised 10(j) rule, ESA, and 2002 State Plan.

On 8 February 2007, the USFWS published a proposal to remove gray wolves in Idaho, and other parts of the northern Rocky Mountains, from protections of the ESA. The final delisting rule was published in the Federal Register 27 February 2008. When wolves are delisted, full management authority will revert to IDFG. Under Idaho Administrative Code, wolves are classified as a big game animal. As such, rules for population management and regulated harvest can be developed by the Department and promulgated by the Commission.

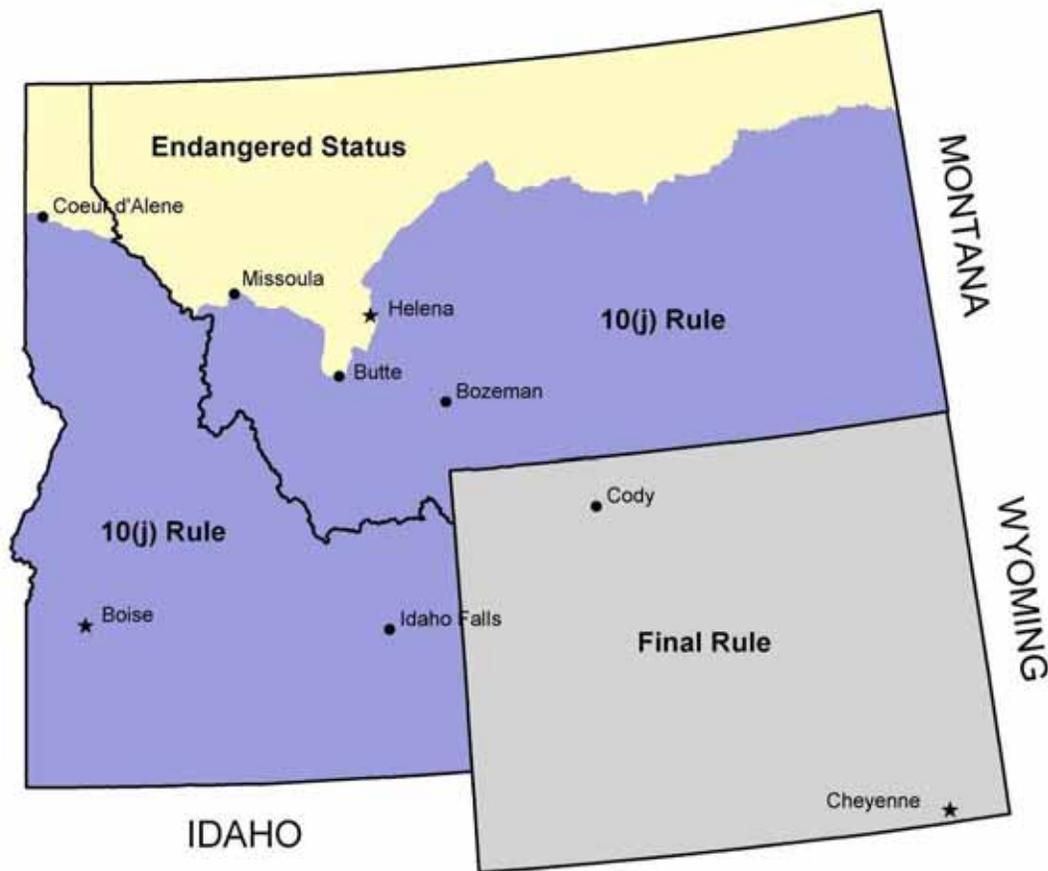


Figure 1.3. Management areas established in February 2005 by the USFWS to restore gray wolf populations in the northern Rocky Mountains of Idaho, Montana, and Wyoming.

2. RESULTS FROM RECOVERY PERIOD

Wolf Population Status

The Idaho wolf population has continued to expand in size and distribution since initial reintroductions in 1995 (Figures 2.1 and 2.2), reaching recovery goals at the end of 2002 (Table 2.1). By the end of 2007, program personnel documented ≥ 489 wolves and ≥ 83 wolf packs in Idaho. The population estimation technique, based on the number of documented packs and individuals within the packs, and correction for lone wolves, yielded a minimum population estimate of 732 wolves in Idaho for 2007 (Nadeau et al. 2008).

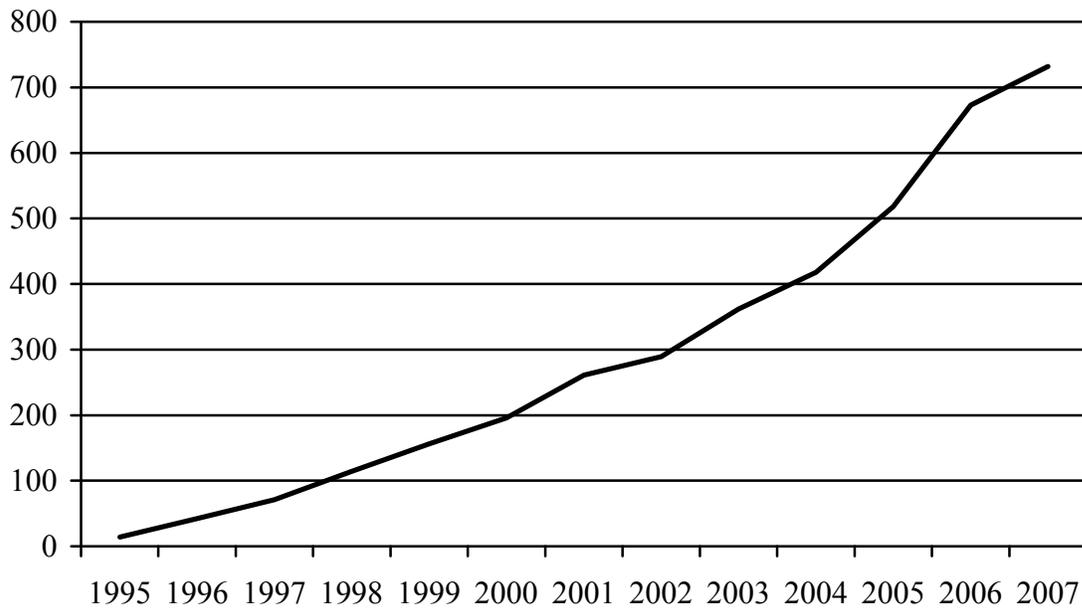


Figure 2.1. Estimated number of wolves, Idaho, 1995-2007. Estimates were retroactively updated as new information became available.

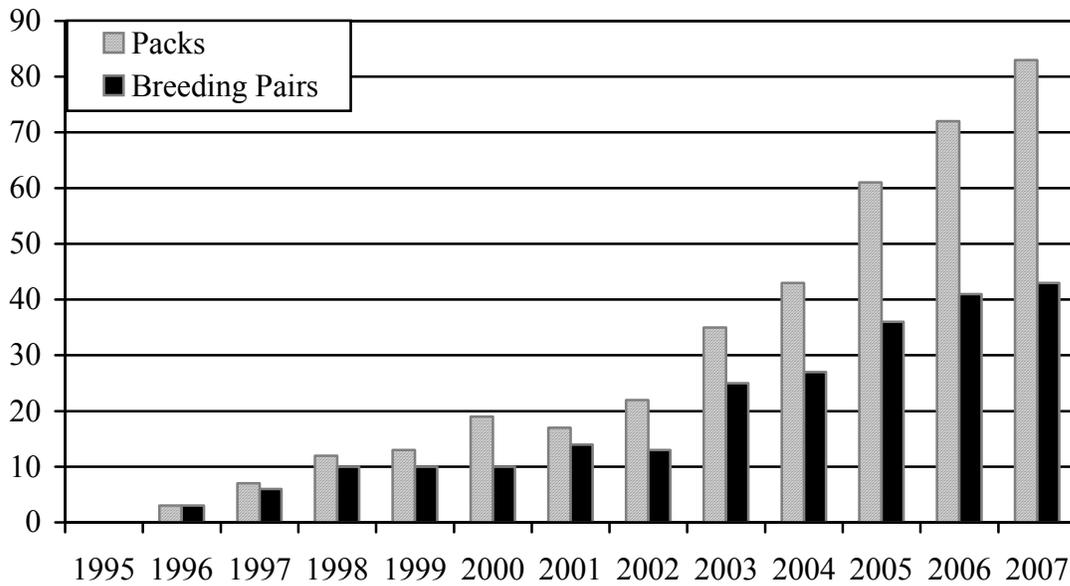


Figure 2.2. Number of documented wolf packs and breeding pairs, Idaho, 1995-2007. Estimates were retroactively updated as new information became available.

Table 2.1. Accomplishments from the 1995-2007 recovery period.

Management direction	Statewide objective	Results	Recommendations of 2002 State Plan
Recover wolf populations under federal recovery goals: 30 breeding pairs and 300 wolves well distributed among 3 states/recovery areas for 3 consecutive years.	10 breeding pairs and 100 wolves in each state for 3 consecutive years. Adequate regulatory mechanisms “2002 State Plans/laws” in place.	Recovery goals reached in 2002. 2002 State Plan outlining management passed in 2002, accepted by FWS 2003. In 2007, 43 breeding pairs and 732 wolves in Idaho.	Maintain >15 breeding pairs in Idaho. If <15 breeding pairs, IDFG will review management policy to determine if changes are needed. If < 15 breeding pair for 3 consecutive years, FWS conduct status review for relisting. Allow wolves to persist where they do not cause excessive conflicts. Develop population management and monitoring programs consistent with maintenance of a self-sustaining, viable population.

Distribution, Reproduction, and Population Growth

Wolves are widely distributed in Idaho from the Canadian border south to the Snake River plain (Figure 2.3). Most wolf pack territories in Idaho occur wholly or predominantly on U.S. Forest Service (USFS) or other public lands.

Of 83 documented packs in 2007 (Table 2.2), 59 produced litters (200 pups) and 43 qualified as breeding pairs (2 adults producing ≥ 2 pups that survive until 31 December of that year). Wolf pup counts were conservative estimates because not all pups in monitored packs were observed, and some documented packs were not visited. Minimum documented litter size ranged from 1 to 8. Average litter size where counts were believed complete ($n = 35$) was 4.1. Ten new breeding pairs were documented and the reproductive status of 24 documented packs was either not verified or believed to be non-reproductive during 2007. The population increased 10% from the previous year’s estimate.

Movement of wolves and connectivity between states and provinces continues to be well documented. At least 15 documented packs use the border between Montana and Idaho and reside part-year in each state, and 2-3 other packs move among Wyoming, YNP, and Idaho. Radiocollared wolves from the Boundary pack move freely among Canada, Idaho, and northwestern Montana. A Global Positioning System-collared wolf moved from just south of Banff National Park, Alberta to west of Dworshak Reservoir in the Clearwater Region where it now appears to be a permanent resident. A radiocollared wolf moved from just east of Boise to the Cody, Wyoming area in 2007. Also, a radiocollared wolf from near Boise was located in the Eagle Cap Wilderness in northeastern Oregon in January of 2008. Wolves are very mobile and are now expanding their range outside of what has been considered optimal habitat and beginning to show up more regularly on private land with livestock grazing. Central Idaho wolf populations may be nearing saturated conditions where territoriality and pack density limit room

for additional breeding pairs so that population growth can only be accommodated through range expansion. Dispersers that survive eventually find a mate and become breeders.

Mortality

Of 77 documented wolf mortalities in 2007, 67 were caused by humans, 2 were attributed to natural causes, and 8 were due to unknown causes (Table 2.2). Of 67 confirmed human-caused mortalities, 43 wolves were killed by WS in response to livestock depredations, 9 were illegally taken, 8 were from other human causes, and 7 were legally taken (shot by landowner while harassing or attacking livestock). These figures underestimate true mortality because only a small proportion of wolves are radiocollared. There were no means to estimate pup mortality prior to observations at dens or rendezvous sites. Lethal removal by WS to address livestock depredations has generally increased since reintroduction, from 1 in 1996 to a high of 43 in 2007 (Figure 2.4). Under the revised 10(j) rule, livestock operators were given the option to kill wolves harassing livestock (previously, lethal removal was only allowed when wolves were observed actually attacking livestock). Fourteen wolves have been killed under provisions of the revised 10(j) rule since 2005.

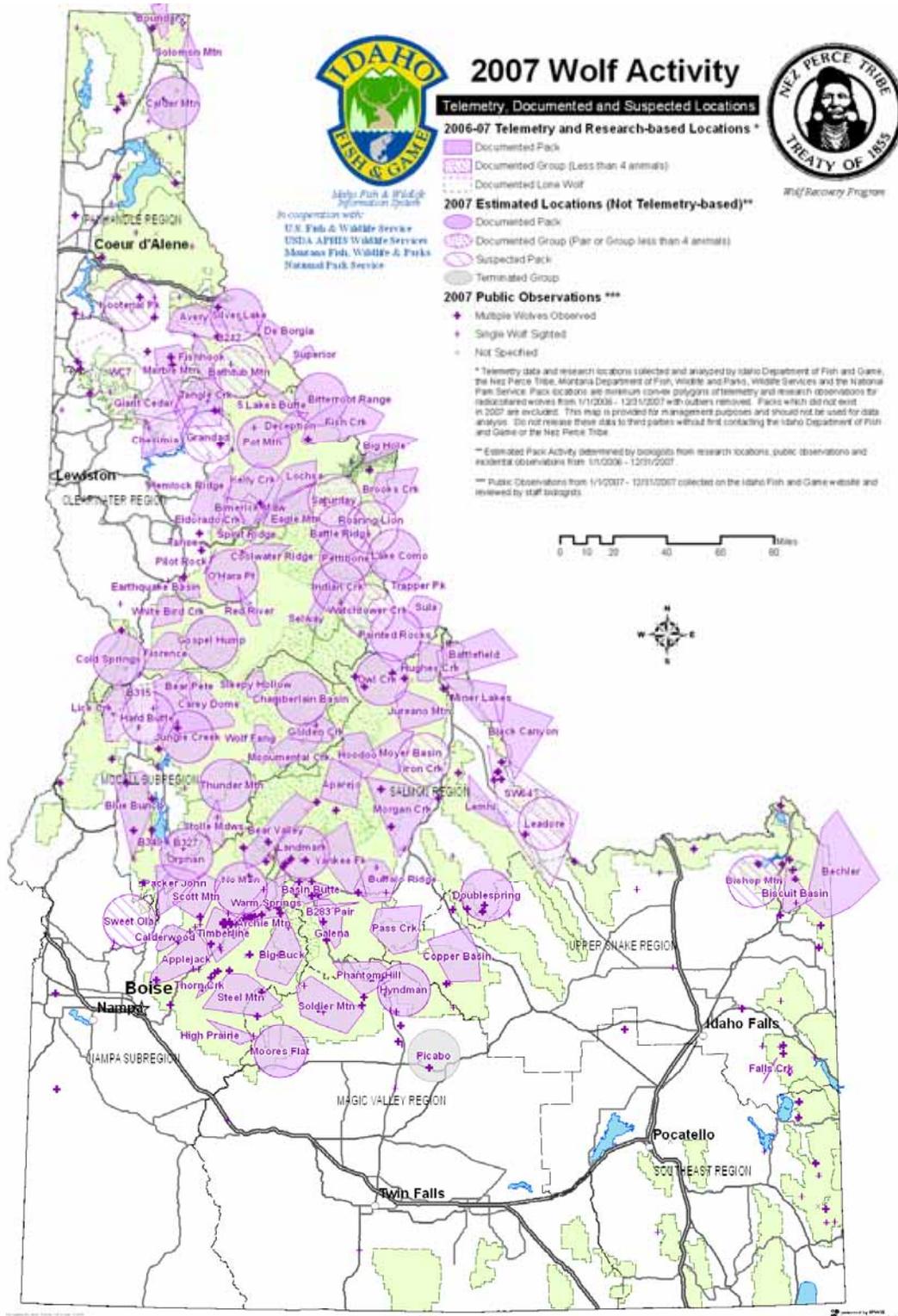


Figure 2.3. Distribution of documented and suspected wolf packs, other documented groups, and public wolf reports, Idaho, 2007.

Table 2.2. Wolf population and monitoring information, and livestock depredations, Idaho, 2007.

	Management Region								Total
	Panhandle	Clearwater	McCall	Nampa	Magic Valley	Southeast	Upper Snake	Salmon	
Minimum number wolves detected ^a	37	148	84	85	9	0	10	116	489
Documented packs									
No. packs beginning of year ^b	8	26	14	13	4	0	3	15	83
No. packs removed ^b	0	0	0	0	0	0	0	0	0
No. packs end of year	8	26	14	13	4	0	3	15	83
Other documented groups ^c									
No. other groups beginning of year ^b	3	5	4	1	1	0	1	6	21
No. other groups removed ^b	0	0	0	0	1	0	0	0	1
No. other groups end of year	3	5	4	1	0	0	1	6	20
Reproductive status									
Minimum no. pups produced	5	72	40	32	9(5)	0	3	39(1)	200(6)
No. reproductive packs	4	19	8	13	2	0	2	11	59
No. breeding pairs ^d	1	17	7	8	1	0	1	8	43
Documented mortalities									
Natural	0	2	0	0	0	0	0	0	2
Control ^e	0	3	10	5	12	0	8	12	50
Other human-caused ^f	3	4	2	1	0	0	1	6	17
Unknown	2	4	1	0	0	0	1	0	8
Known dispersal	2	0	0	2	0	0	0	1	
Monitoring status									
Active radiocollars	8	30	14	13	3	0	3	16	
No. wolf captures ^g	2	16	6	10	3	0	2	11	
No. wolves missing ^h	1	2	0	2	1	0	0	5	
Confirmed (probable) wolf-caused livestock losses									
Cattle	0	1(2)	8(2)	3	9(4)	0	14(5)	18(7)	53(20)
Sheep	0	0	60(3)	56(5)	41(7)	0	2	11	170(15)
Dogs	0	0	4(3)	(2)	3	0	1(1)	0	8(6)

^a Number of wolves observed by wolf program personnel in 2007. Sum of this column is less than the estimated number of wolves in the population.

^b Does not include packs removed due to lack of verified evidence for the preceding 2 years. Includes border packs tallied for Idaho.

^c Other documented wolf groups include suspected packs and known and suspected mated pairs; verified groups of wolves that do not meet the definition of a documented pack.

^d Breeding pairs are the measure of Federal and State wolf recovery and management goals. A breeding pair is defined as “an adult male and a female wolf that have produced at least 2 pups that survive until December 31 of the year of their birth...”.

^e Includes agency lethal control and legal take by landowners.

^f Includes all other human-related deaths.

^g Includes all wolves captured during 2007. Most, but not all, were radiocollared.

^h Radiocollared wolves that became missing in 2007.

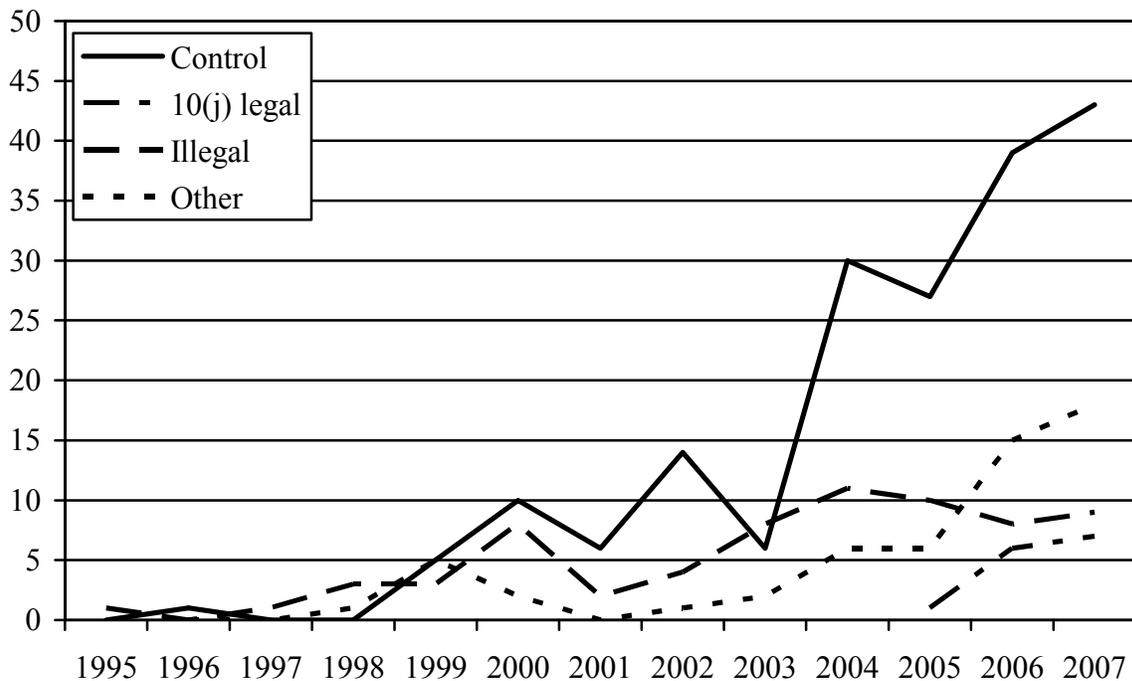


Figure 2.4. Documented wolf mortality, Idaho, 1995-2007. Control is lethal removal in response to livestock conflicts; 10(j) legal is lethal removal by livestock operators; illegal is illegal take; and other includes natural mortality, vehicle collisions, and unknown causes.

3. ISSUES

Understanding of biology, impacts, and benefits of wolves has increased since reintroduction. The original recovery EIS analyzed potential impacts and benefits of 100 wolves in Idaho, a biologically-recovered population that was reached in 1998 (Figure 2.1). At the end of 2007, IDFG and the Tribe estimated there were ≥ 732 wolves, more than 7 times the number analyzed for potential impacts and benefits in the EIS. The current population level is of particular concern for sportsmen who rely on surplus deer (*Odocoileus* spp.) and elk (*Cervus elaphus*) for hunting, and livestock producers who use public and adjacent private land for livestock grazing. On the other hand, many members of the public find wolves esthetically pleasing and believe they are an important keystone predator necessary for an ecologically intact natural system.

Conflicts with Domestic Livestock

Management of wolf depredation on livestock has been a significant segment of overall wolf management since reintroduction. Confirmed depredation attributable to wolves steadily increased after reintroduction, reaching highs of 170 sheep in 2006 and 53 cattle in 2007 (Figure 3.1). Nonlethal and proactive techniques were used to reduce wolf-livestock conflicts when and where appropriate.

Livestock husbandry costs increase as producers increase vigilance and hire personnel to reduce potential for losses. Some losses may be associated with livestock being harassed or injured by wolves even if they are not mortally wounded, and some losses are incurred but never discovered (Oakleaf et al. 2002). Under the 2002 State Plan, IDFG has an obligation to producers to keep livestock conflicts with wolves to a minimum, similar to management programs for other large carnivores.

Impacts on Big Game Populations

Wolf impacts on wild ungulate populations are variable in space, time, and magnitude. In the Lolo Elk Zone, wolf predation impacts on elk have been documented over the last few years. Based on cause-specific mortality of radiocollared elk in the Lolo Zone, under existing conditions, wolf predation on cow elk is a significant factor in that population's inability to stabilize or increase, particularly in Game Management Unit 12 (IDFG 2006). Similarly, wolf predation may be causing reductions in harvestable surplus in other areas, even if elk populations are not declining. Wolves are likely impacting behavior and habitat use of elk during hunting seasons, thus possibly reducing success rates for some hunters. Behavioral changes documented by researchers in the greater Yellowstone ecosystem included elk spending more time in forested areas, on steeper slopes, and at higher elevations than prior to wolf reintroductions (Creel and Winnie 2005, Mao et al. 2005). The Department will continue to closely monitor impacts of wolves on ungulates as this aspect of wolf recovery is very important to big game managers and hunters. Under the 2002 State Plan, IDFG has an obligation to assure that wolves in increasing numbers do not adversely affect big game populations. Predation pressures on elk and deer are natural sources of mortality that are accounted for in natural systems, and not problematic at some level. Predation has unknown benefits through selection processes as well as influence on populations that may be either beneficial or detrimental to the population, depending on time, location, environmental and habitat conditions, and point of view.

The following paragraphs in this section are excerpted from the 2002 State Plan. Wolves are effective predators and scavengers that feed primarily on large ungulates throughout their range (Murie 1944, Pimlott 1967, Mech 1970, Van Ballenberghe et al. 1975, Carbyn 1983, Ballard et al. 1987, Gasaway et al. 1992, Boyd et al. 1994). Ungulates comprise nearly all of the winter diet of most wolves. Of ungulates killed during winter by wolves that colonized northwestern Montana since the mid-1980s, 63% were deer (60% white-tailed deer and 3% mule deer), 30% were elk, and 7% were moose (Boyd et al. 1994, Kunkel et al. 1999). Wolves elected white-tailed deer wintering areas and selected deer over elk and moose (Kunkel et al. 1999). An established population of wolves in northwestern Montana and southeastern British Columbia was responsible for the annual mortality of 6% of female white-tailed deer and 3% of female elk (Kunkel 1997, Kunkel and Pletscher 1999).

In Yellowstone, elk made up 89% of the 449 kills made by wolves during winters 1995-1997 (Phillips and Smith 1997, Smith 1998). In 2000, 281 elk (87%), 10 bison (3%), 4 moose (1%), 5 deer (3%), 4 coyotes (1%), 1 wolf, and 17 unknowns (5%) were determined to be killed by wolves during the mid-winter observation period. Composition of elk kills was 34% calves, 34% cows, 19% bulls, and 13% unknown. Bison kills included 3 calves, 1 cow, 1 bull and 4 adults of unknown sex. Remains of voles, ground squirrels, snowshoe hare, coyotes, bears, insects and vegetation were also found in wolf scats (Smith 1998).

Prey selection and frequency of killing by wolves varies greatly depending on many factors including pack size, snow conditions, the diversity, density, and vulnerability of prey, and degree of consumption of the carcasses (Kunkel 1997). Snow depth and wolf density best explained the annual variation in kill rate in northwestern Montana (Kunkel 1997). Based on studies with the most similar species and diversity of prey (Carbyn 1983, Keith 1983, Boyce 1990, Vales and Peek 1990, Mack and Singer 1992), wolves are projected to kill about 16.5 ungulates per wolf per year in Idaho where they are expected to feed primarily on mule deer and elk (USFWS 1994).

During the first 3 years of an intensive predation study in Yellowstone, wolves killed at a rate equivalent to ~ 10.7 kills/wolf/year during early winter (Phillips and Smith 1997, Smith 1998). The rate increased to ~ 23.3 kills/wolf/year by late winter (Phillips and Smith 1997, Smith 1998). Elk made up 90% of the wolf kills examined.

Wolves in Idaho are expected to be less reliant on elk and more reliant on mule deer and white-tailed deer compared to Yellowstone where primary alternative prey options are bison and antelope. However, in the first year of a winter predation study near Salmon, Idaho, deer made up only 10% of the prey killed by the Moyer Basin and Jureano Mountain wolf packs during winter, significantly less than their proportion of abundance (Husseman and Power 1999, Husseman 2002). Wolves selected calf elk in excess of their proportion of abundance in the population (Husseman and Power 1999, Kuck and Rachael 1999).

Carbyn (1987) documented that wolves prey on calf elk in excess of their proportion of abundance in the population. Wolves selected older and younger deer and elk than did hunters in northwestern Montana (Kunkel et al. 1999). Vales and Peek (1995) examined several studies that reported the age structure of deer and elk killed by wolves compared to the estimated age structure of the deer and populations (Table 4). In several studies wolves were documented to take old deer in excess of their proportion of abundance in the population, and wolves tended to take elk calves in excess of their abundance in the population (Table 4; Kunkel et al. 1999). Husseman and Power (1999) similarly reported wolves taking elk calves in excess of their proportion of abundance in the population. Fifty-eight percent of elk killed by wolves near Salmon, Idaho during winter 1999 were calves (Husseman and Power 1999); whereas, calves comprised approximately 17% of the elk population in the area at that time (Kuck and Rachael 1999).

Kill rates of wolves may vary widely by area and from year to year depending upon primary prey species, prey abundance, and weather conditions, among other factors. Most often the effects on prey populations that are attributable to wolf predation are unknown because of the lack of information on population dynamics of the prey populations and the rates of other mortality sources. However, Kunkel and Pletscher (1999) documented that predation by wolves and other predators (i.e., mountain lions, grizzly bears, black bears, coyotes, and humans) on ungulate species in northwestern Montana appeared to be mostly additive to the effect of other mortality factors and that predation appeared to be the primary factor limiting the growth of deer and elk populations.

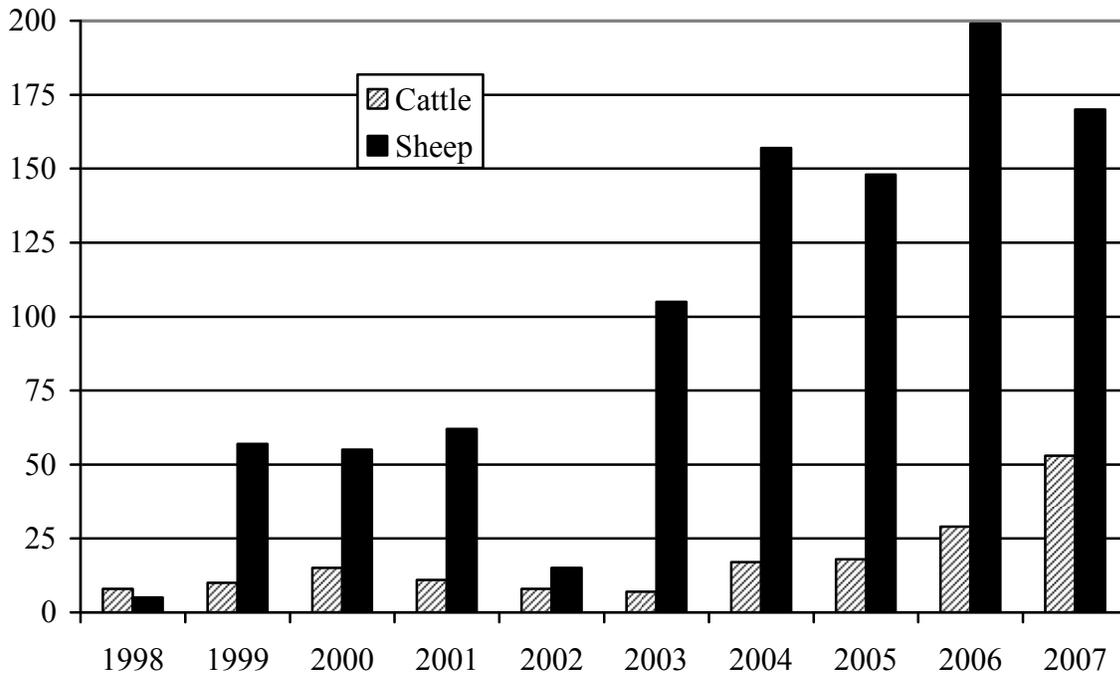


Figure 3.1. Confirmed livestock losses due to wolves, as compiled by U.S. Department of Agriculture Wildlife Services, by federal fiscal year, Idaho, 1998-2007.

Ecological Effects of Wolf Predation

There is evidence in YNP that, since wolf recovery, the elk population and elk use of riparian willow (*Salix* spp.) habitat have declined. Reduced elk use allowed recovery of some willow habitats, thereby producing a cascade effect benefiting a wide range of animal species (Ripple and Beschta 2004). Elk carcasses resulting from wolf predation are being used by an entire suite of scavengers and other carnivores, potentially increasing fitness of species such as grizzly bears (*Ursus arctos*), red and grey foxes (*Vulpes vulpes* and *Urocyon cinereoargenteus*), common ravens (*Corvus corax*), and bald and golden eagles (*Haliaeetus leucocephalus* and *Aquila chrysaetos*) (Smith et al. 2003).

Predation studies have repeatedly shown that selection by wolves favors young, old, or physically impaired prey animals (Mech et al. 2001, Husseman 2002, Smith et al. 2003). Strong selection for disadvantaged prey may result in a mitigating effect on overall wolf impacts to prey populations due to the compensatory mortality component of wolf predation, or when wolves selectively prey on older, non-productive individuals that no longer contribute to population maintenance or growth.

Economic Impacts of Wolves

A visitor survey conducted in YNP comparing pre-wolf visitation and post-wolf visitation during 2005 indicated that the direct spending impact of wolf presence in the GYA amounted to about

\$35.5 million annually (Duffield et al. 2006). Consequently, some increase in economic benefits would be recognized in the gateway communities of YNP. Several outfitters operate wolf viewing trips into YNP. In Idaho, wolf viewing has yet to provide significant economic benefit for the state. Some outfitters have offered wolf viewing opportunities, but they indicate it was not a lucrative portion of their business. Also, according to outfitters, changes in elk behavior attributable to wolves have impacted specific outfitter operations negatively (G. Simonds, IOGA, personal communication).

Currently, there appears to be no economic loss to IDFG because of reductions in deer or elk tag sales, as nonresident quotas for both continue to sell out annually, and resident sales are stable. However, trends in some elk populations may dictate reductions in elk hunting opportunity in the near future. Further, some hunters have indicated that they would not return to their hunting areas because of real or perceived impacts of wolves. This change in hunter activity is difficult to assess.

Livestock producers have absorbed most of the financial impacts of wolf recovery through uncompensated predation losses, reduced productivity related to stress on livestock, and increased personnel costs associated with livestock protection and management. Compensation comes in the form of reimbursement by non-government organizations, as well as from state government. The Defenders of Wildlife (DOW), who compensated for verified livestock losses through donations, recently stated they will no longer fund compensation once wolves are delisted. Thus, state costs for compensation for livestock losses will increase following delisting. The Fish and Game Advisory Committee is studying the most cost effective way to incorporate wolves into the IDFG depredation compensation program.

Non-consumptive Use of Wolves

Many people participate in wildlife viewing. In 2006, 746,000 people watched wildlife in Idaho and spent \$273 million while doing so (USFWS 2007b). Further, 39% of Idaho residents participated in wildlife viewing, whereas 20% angled and 11% hunted. Although potential participation in wolf viewing is unknown, respondents to a random survey indicated that 42% of non hunters would travel to see a wolf and 20% of non hunters would pay an average of \$123 to an outfitter to see a wolf (median = \$100) (Appendix A). In the same survey, 20% of hunters said they would travel to see a wolf, and on average would pay \$115 to an outfitter to see one (median = \$100).

Watchable Wildlife Areas

Wildlife viewing areas are popular among the public and wildlife viewing is a growing pastime among Americans (USFWS 2007b). Viewing big game animals such as deer and elk is common and especially popular when they are easily viewed from roads. Quality large ungulate viewing occurs despite annual hunting seasons. Similarly, such viewing opportunities may be available for wolves throughout the state despite annual hunting. However, as is the case with other large predators, viewing opportunities will be naturally infrequent and seasonal because these species occur at relatively low density and are secretive and highly mobile. Developing Watchable Wildlife Areas would require consensus with landowners and other affected interests. Wolf

viewing opportunities and areas will be described in future editions of IDFG's Wildlife Viewing Guide.

Illegal Take of Wolves

From reintroduction until 2007, 68 wolves were unlawfully taken in Idaho. Based on estimates calculated using radiocollared wolves, illegal take accounted for approximately 7% of annual wolf mortality in Idaho since reintroduction. Idaho conservation officers either assisted USFWS or were primary investigators for most wolf cases since 2005. Unlawful take of wolves is a misdemeanor violation under Section 9 of the ESA and federal courts have levied a variety of civil and criminal penalties for unlawful take.

Wolves are classified as a big game animal under Idaho Administrative Code (IDAPA 13.01.06). Under state law, a violation of wolf harvest regulations or illegal take of a wolf would be a violation of Idaho Code 36-1101(a) and could result in a misdemeanor fine of \$25-\$1,000. Multiple violations may be considered flagrant and/or felonious and result in higher fines and penalties including jail time, loss of hunting privileges, and forfeiture of equipment used in the crime.

Impacts of Regulated Harvest or Wolf Removal on Wolf Populations or Pack Structure

Concerns have been expressed about potential impacts of regulated harvest on pack stability and social structure and potential for exacerbating livestock problems rather than reducing them with wolf removal. In Idaho, wolf mortality exceeded 20% during some years due to a combination of legal control to reduce conflicts, illegal take, and natural and other human causes (Nadeau et al. 2007). Managers have monitored wolf packs since reintroduction. Some packs are remarkably stable despite annual removal due to livestock conflicts. For instance, the Jureano Mountain, Moyer Basin, Steel Mountain, and Copper Basin packs, as well as several others, are subject to annual removal of multiple pack members. In 2005 Copper Basin pack was reduced from 10 pack members to 1 subadult and 1 pup, but the wolves remained together and territorial and by breeding season, new wolves joined the pack and pups were born again in the spring. Pack resilience to high mortality is inherent in behavioral adaptation and high reproductive capabilities of wolves (Brainerd et al. 2008). Brainerd et al. (2008) found that 62% of packs in recovering populations retained territories despite breeder loss, and of those who lost territories, one-half became reestablished. Pack stability and alpha replacement was dependent on population size and availability of replacement members in the population more so than alpha removal. Furthermore, pup survival was primarily dependent on size of pack and age of pup rather than alpha survival because multiple pack members feed pups despite loss of an alpha. Pups survived in 84% of packs with breeder loss, which was similar or higher than packs without breeder loss (Mech and Boitani 2003). Brainerd et al. (2008) stated that breeder replacement was highest and fastest in populations greater than 75 wolves.

Bradley (2004) found that after partial or complete wolf pack removal, depredations usually ceased for the remainder of the given grazing season. However, most packs that were partially removed (68%) depredated again within the year. Rate of recolonization of territories where entire packs were removed ($n = 10$) was high (70%) and most recolonizations (86%) occurred within a year of removal of the previous pack. Most packs (86%) that recolonized were

implicated in depredations. Packs in which alphas were removed were no less likely to cause depredations again within the year than packs with non-alphas removed. Bradley and Pletscher (2005) found that pastures where depredations occurred were more likely to have elk present, were larger in size, contained more cattle, and were farther from residences than pastures without depredations. Greater vegetation cover, closer proximity to wolf dens, and physical vulnerability of cattle were also likely important factors. Many such situations can be ameliorated by changing timing of grazing or trailing; increasing use of herders, guard dogs, and fladry; or reducing wolf populations in the area prior to livestock activity. Lethal control has been shown to be an effective way to reduce or eliminate conflicts in the short-term, but for the long-term, a variety of management options may prove most beneficial.

Wolf removal in response to wolf depredation on livestock in Idaho has typically been incremental over the last several years. That is, when a livestock conflict occurred, and nonlethal techniques were not feasible, WS was typically authorized to remove 1-2 wolves during the first offense, under the premise that the offending animal(s) would be removed when returning to the carcass. Wolf removal is often focused on the first few wolves seen near the carcass, regardless of pack status. Usually, WS attempts to retain any radiocollared wolves in the pack to continue to provide telemetry information. Wolf removal continues in an incremental progression until the problem is resolved, up to and including the entire pack. We are unaware of any circumstance where incremental wolf removal has increased livestock problems, but depredations may continue despite removal. Experimentation and adaptive management trials will be implemented to test this hypothesis under field conditions, along with aversive conditioning and other behavioral modification trials.

Diseases and Parasites

Wolves in Idaho are known to have exposure to a variety of diseases, including those caused by viruses (e.g., canine distemper, canine parvovirus, and canine infectious hepatitis), bacteria, and both internal (e.g., intestinal worms of various species, echinococcosis) and external (e.g., lice and ticks) parasites. A complete list of diseases that wolves in Idaho could encounter would closely mirror diseases present in domestic dogs in the state. Those animals that interact with domestic dogs are likely to have higher exposure rates than wolves in remote areas. Wolf populations have the opportunity to develop individual and pack level immunity to some of the common pathogens over time, some of which may be conferred to offspring through maternal antibodies (Gillespie and Timoney 1981). Although diseases can be significant sources of mortality for wolves, they are generally not considered to be limiting at the population level. Despite evidence of ubiquitous exposure, wolves in Idaho demonstrate high recruitment, suggesting long-term stability of the population. Negative effects associated with diseases are unlikely unless the population reaches high density (Kreeger 2003). If, at any time, the wolf population level falls below acceptable limits, an emergency order will be implemented by the Director to curtail harvest and lethal control (Idaho Code 36-106[Sec. 6A]).

4. MANAGEMENT DIRECTION

The goal of the IDFG plan is to ensure that populations are maintained at 2005-2007 population levels (518-732 wolves) during the 5-year post-delisting period through adaptive management under the guidelines of the 2002 State Plan. Consistent with the delisting rule, the state goal is to ensure the long-term viability of the gray wolf population. In order to ensure the population goal is achieved, the Department will maintain ≥ 15 breeding pairs (floor threshold). The Department will maintain balanced wolf and prey populations, and ensure genetic transfer among states through maintaining connectivity and functional metapopulation processes. The Department will manage wolves to minimize conflict with humans and domestic animals.

Secondarily, the IDFG and hunter goal of maintaining harvest opportunity for wolves is an important component. Ideally, population objectives should also reflect ability to monitor packs, breeding pairs, and total wolves, as well as harvest and monitoring objectives in neighboring states. Therefore, the long-term objective is to maintain viable wolf populations in the state, achieve short-term harvest goals to reduce conflicts, provide annual harvest opportunity, and provide for non-consumptive benefits. Based on stakeholder input, the most important objective within the management plan will be conflict resolution, when populations meet or exceed the population goal of the plan. Future population goals will reflect knowledge gained each year. However, the statewide population will range between the 2005 and 2007 levels and not be allowed to fall to a level where management of conflicts has to be restricted (< 15 breeding pairs). Furthermore, optimal hunting opportunity and flexibility in conflict resolution can be achieved by maintaining > 20 breeding pairs (Table 4.1). Twenty breeding pairs is not an objective, nor is it a prejudgment about the population level of wolves necessary to avoid conflict. It is only a management trigger that will require additional protections to ensure the population goal is achieved. The range of thresholds from relisting to optimal hunting is defined in Table 4.1. The objectives addressed above fall within 11 broad objectives identified in IDFG's strategic plan (Table 4.2).

Table 4.1. Management direction for varying numbers of breeding pairs.

<10 breeding pairs (FWS threshold)	10-14 breeding pairs (2002 State Plan threshold)	15-20 breeding pairs (IDFG conflict threshold)	>20 breeding pairs (IDFG hunting threshold)
USFWS status review for relisting	IDFG reviews management policy to determine if changes are needed	IDFG evaluates harvest strategies and need for more conservative harvest	Annual harvest opportunity
Depredations will be addressed with nonlethal control	Control of problem wolves increasingly restrictive	Control of problem wolves incremental and increasingly restrictive	Control of problem wolves allowed under normal circumstances
Monitoring of each pack using radiocollars to verify reproduction and survival	Monitoring intensifies to ensure each pack contains some radiocollared wolves to monitor reproduction and survival	Monitoring intensifies to ensure ≥ 15 packs contain some radiocollared wolves to monitor reproduction and survival	Use multiple monitoring techniques to document a minimum BP and population estimate

Table 4.2. Management direction for the 2008-2012 Wolf Population Management Plan as driven by *The Compass* objectives.

Compass Objective	Wolf Management Direction
Maintain or improve game populations to meet the demand for hunting, fishing, and trapping	Minimize impacts of illegal take on wolves Address impacts of wolf predation on other big game populations Maintain a wolf population that can sustain annual harvest opportunity
Ensure the long-term survival of native fish, wildlife, and plants	Maintain a self-sustaining, well-distributed, viable wolf population so that wolves fulfill their ecological role, assure genetic transfer through connectivity without impacting viability and sustainable harvest of other big game populations
Increase the capacity of habitat to support fish and wildlife	Manage motorized vehicle hunting access and activity that reduces carrying capacity for wildlife Promote contiguous habitat along corridors and adjacent to YNP and surrounding states
Eliminate the impacts of fish and wildlife diseases on fish and wildlife populations, livestock, and humans	Manage wolf population size and distribution so as to minimize exposure of humans, livestock, and wildlife to wolf-borne diseases and parasites Monitor wolf health status
Maintain a diversity of fishing, hunting, and trapping opportunities	Provide a variety of hunting and trapping opportunities for wolves Provide opportunity for hunters to control problem wolves through depredation hunts Maintain opportunity for hound hunters pursuing bears and lions
Increase opportunities for wildlife viewing and appreciation	Identify wolf-viewing opportunities
Increase the variety and distribution of access to private land for fish and wildlife recreation	Maintain and increase existing level of access to private lands for hunting wolves
Maintain broad public support for fish and wildlife recreation and management	Increase public awareness of wolves as a big game animal and management for sustained harvest Reduce incidence of domestic livestock depredation by wolves Increase public acceptance of wolves as big game animals
Improve citizen involvement in the decision-making process	Promote involvement in stakeholder groups, open houses, public surveys and website comments, and harvest season-setting meetings
Increase knowledge and public understanding of Idaho's fish and wildlife	Promote educational opportunities regarding wolf biology and management as well as laws and policies affecting wolves
Improve information management and business systems	Incorporate wolf licensing, harvest monitoring, and data management into existing agency systems
Improve funding to meet legal mandates and public expectations	Identify funding sources to implement the 2002 State Plan and IDFG Plan

5. STATEWIDE OBJECTIVES

Table 5.1. Objectives, strategies, and metrics for statewide wolf management direction.

Wolf Management Direction	Objective (Performance Target)	Strategies
Minimize impacts of illegal take on wolves	Assist management objectives through effective enforcement	<ul style="list-style-type: none"> • Enhanced enforcement presence during peak use (in conjunction with deer, elk, and wolf seasons) targeting areas frequented by wolves • Use action plans to address specific enforcement needs as they arise
Address impacts of wolf predation on other big game populations	Maintain ungulate populations at or near objectives	<ul style="list-style-type: none"> • Focus monitoring in areas where ungulates are below objectives • Continue research to identify impacts of wolves on ungulate populations • Implement predation management policy when necessary (Table 7.1)
Maintain a wolf population that can sustain annual harvest opportunity	<p>Satisfy population objectives of the 2002 State Plan</p> <p>Stabilize populations between 2005 and 2007 levels</p>	<ul style="list-style-type: none"> • Monitor wolf population status annually • Determine initial demand for wolf hunting opportunity through public surveys and public meetings • Monitor wolf harvest and assess catch/unit effort • Adjust harvest opportunity through season length and timing, harvest quotas, bag limits, and other regulatory tools
Maintain a self-sustaining, well-distributed, viable wolf population, ensure genetic transfer through connectivity so that wolves fulfill their ecological role without impacting viability and sustainable harvest of other big game populations	Wolf population that fills the predator niche without limiting statewide ungulate population objectives	<ul style="list-style-type: none"> • Monitor wolf population status annually • Allow wolves to persist where they do not cause excessive conflicts with humans or human activities • Ensure connectivity within the NRM • Focus monitoring in areas where ungulates are below objectives • Manage for adequate wolf harvest in areas where ungulate populations are not meeting objectives
Manage motorized vehicle hunting access and activity that reduces carrying	A level of access that does not negatively affect the quality of wildlife habitat	<ul style="list-style-type: none"> • Provide technical assistance to land management agencies regarding quality winter ranges, noxious weeds, and motorized access

Table 5.1. Continued.

Wolf Management Direction	Objective (Performance Target)	Strategies
capacity for wildlife		
Promote contiguous habitat along corridors and adjacent to YNP and surrounding states	Secure, high-quality habitat in wildlife corridors and adjacent to YNP and other states	<ul style="list-style-type: none"> • Provide comment to land managers on opportunities to secure and protect wildlife corridors • Provide technical assistance to land management agencies to improve wildlife habitat • Adjust harvest seasons to reduce take during peak dispersal periods
Manage wolf population size and distribution so as to minimize exposure of humans, livestock, and wildlife to wolf-borne diseases and parasites Monitor wolf health status	See that wolf populations do not exceed biological carrying capacity Maintain healthy wolf population and identify potential disease or parasite risks	<ul style="list-style-type: none"> • Manage populations to minimize risk of transmitting diseases and parasites to wildlife, domestic animals, and humans • Monitor wolves for diseases and parasites • Educate the public about risks of disease transmission
Provide a variety of hunting and trapping opportunities for wolves Provide opportunity for hunters to control problem wolves through depredation hunts Maintain opportunity for hound hunters pursuing bears and lions	Provide annual hunting and trapping opportunity when possible Control wolf population numbers in areas of high conflict with maximum opportunity for harvest Provide hound hunting opportunities for bears and lions where minimal encounters with wolves can be expected	<ul style="list-style-type: none"> • Provide a variety of hunting and trapping opportunities including general hunts with harvest quotas, controlled hunts, depredations hunts, and restricted methods hunts • Provide training opportunities for wolf hunting and trapping techniques • Inform hound hunters where wolf activity exists • Provide information on how to avoid conflicts between wolves and hunting dogs
Identify wolf viewing opportunities and areas	Provide non-consumptive viewing opportunity	<ul style="list-style-type: none"> • Publish wolf viewing areas in wildlife viewing publications • Highlight non-consumptive recreational opportunities via media outlets • IDFG and stakeholders discuss consensus for possible pilot projects • Emphasize wolf education opportunities (possibly including

Table 5.1. Continued.

Wolf Management Direction	Objective (Performance Target)	Strategies
		field experiences)
Maintain and increase existing level of access to private lands for hunting wolves	Hunter and trapper opportunity to harvest wolves on private lands, particularly animals that cause conflicts with livestock	<ul style="list-style-type: none"> • Work with private landowners and livestock producers to increase hunter and trapper access to assist in wolf control • Encourage landowners with wolf conflicts to participate in “Access Yes!”
<p>Increase public acceptance of wolves as a big game animal and management for sustained harvest</p> <p>Reduce incidence of domestic livestock depredation by wolves</p>	<p>A knowledgeable public that views wolves as a natural member of the wildlife community</p> <p>Acceptance of a tolerable population of wolves by livestock producers</p> <p>Resident and nonresident hunters value wolves similar to other big game species</p>	<ul style="list-style-type: none"> • Provide educational materials and opportunities for general public to obtain balanced information regarding wolves • Provide educational materials and opportunities for general public to understand IDFG wolf management • Implement incremental lethal control of wolves after first offense • Work with private landowners and livestock producers to increase hunter and trapper access • Encourage livestock producers to use proactive measures • Manage for adequate harvest of wolves in areas of high livestock conflict • Encourage the public to participate in the annual season-setting process
Promote educational opportunities regarding wolf biology and management as well as laws and policies affecting wolves	A well-informed public that understands the ecological role of wolves and IDFG management responsibilities	<ul style="list-style-type: none"> • Public open houses to discuss wolf population status and harvest management • Maintain an up-to-date webpage • Maintain current information and materials at regional offices to provide presentations within local communities • Provide information through a variety of media and formats

Table 5.1. Continued.

Wolf Management Direction	Objective (Performance Target)	Strategies
Incorporate wolf licensing, harvest monitoring, and data management into existing agency systems	Licensing and harvest reporting systems that will be easy to use for the public	<ul style="list-style-type: none"> • Incorporate wolf licensing in existing license system • Provide a user-friendly system for harvest quota management • Automated phone reporting system • Automated phone and internet quota monitoring system • Monitor quota compliance, mandatory reporting • Incorporate wolf harvest in Big Game Mortality Report database
Identify funding sources to implement the Wolf Conservation and Management and Population Management Plans	Secure sufficient funds on an annual basis (~\$720,000) to continue to provide existing levels of service (monitoring, livestock compensation, ungulate research, outreach, etc.) to satisfy federal and state requirements	<ul style="list-style-type: none"> • Identify levels for tag fees that would maintain the wolf management program • Find additional funding sources to maintain wolf management program • Maintain annual requests through Congress, USFWS and OSC to maintain funding and wolf depredation compensation • Seek legislative approval to use state funds • Provide public with opportunity to contribute to “wolf compensation fund”
Promote public involvement in wolf management	Department understanding of public attitudes and preferences for wolf management	<ul style="list-style-type: none"> • Conduct public open houses to discuss wolf population status and harvest management • Maintain an up-to-date webpage for public input • Conduct surveys to gauge public opinion on management issues • Encourage public involvement at commission meetings and during season-setting process

6. DATA ANALYSIS UNITS (DAUs)

The 2002 State Plan allowed for development of “wolf hunting zones” if IDFG deemed them appropriate. The state is divided into 7 regions and 1 subregion, and 99 Game Management Units (GMUs). Depending on species, GMUs are grouped into larger DAUs or Zones that reflect habitat conditions, populations, land management, and other management considerations. Large carnivore populations in the state are managed using DAUs and population objectives revolving around high, moderate, and low harvest regimes that generally reflect inversely-related objectives of low, moderate, and high population levels, respectively. Often, low harvest and stable carnivore populations are a result of difficult terrain, low hunter numbers and success, and large blocks of wilderness that act as default reservoirs or core areas. Populations in these core areas generally act as a “source” for adjacent areas where harvest levels are higher. Conversely, areas of the state that provide high value for livestock grazing and other human activities that can create conflict with large carnivores (and thus high levels of carnivore removal) are likely to act as population “sinks.” These source and sink population dynamics can be managed through a DAU framework to address a variety of management issues while maintaining appropriate population levels, addressing conflict issues, and providing consumptive and non-consumptive recreation values. There are 12 Wolf DAUs designated for Idaho.

Wolf harvest can be managed at the DAU, GMU, or even subunit (a unit may be subdivided into smaller portions for certain objectives) level as necessary to achieve monitoring and management goals and objectives. Variable harvest rates can occur among GMUs within a DAU. For instance, if the objective were to maintain a stable population in a DAU, managers would strive for a moderate harvest goal for the DAU as a whole. However, managers could prescribe low or no harvest in some GMUs or subunits within that DAU to promote wolf viewing opportunity or maintain a radiocollared breeding pair, yet still allow high harvest rates in another GMU within the DAU to reduce livestock or ungulate conflicts. Data Analysis Units are designed for grouping and analyzing data and to achieve broad goals for a population segment, but not necessarily to restrict management options and objectives to a single prescription for the entire DAU.

Because wolves in Idaho prey primarily on elk and secondarily on deer, it is appropriate to use Elk Zones and group them into DAUs for wolf management objectives (Figure 6.1, Table 6.2). Wolf DAUs were developed based on current wolf densities and distribution, elk zones and prey base, livestock conflict areas, ecological or administrative similarities, and metapopulation and linkage concerns.

The Selway and Middle Fork DAUs in central Idaho are under wilderness designation and will function as default “core” areas (as they do for black bears [*Ursus americanus*] and mountain lions [*Puma concolor*]) because of the remote nature, difficult access, and low hunting pressure. Thus, wilderness wolf populations will act as “source” populations for surrounding areas and wolf populations will likely remain stable under a wide range of hunting opportunities.

National Forests outside wilderness include most of the current known wolf population and many conflict situations. Wolves in these areas can be managed for a variety of benefits through low or high harvest as appropriate. Some DAUs with chronic livestock conflicts seem to be preferred by wolves and some level of wolf activity is to be expected in these areas on a regular

basis. Wolf populations in these areas will be allowed to persist if they do not cause unacceptable conflicts, but will otherwise be subject to relatively high harvest pressure and agency removal efforts. Although proactive and nonlethal methods for reducing conflicts are generally preferred, management in these conflict areas will likely include lethal removal and compensation to producers for livestock losses.

Few wolves have moved into private agricultural areas or desert habitat far from established wolf populations, but those few have been involved in conflicts with livestock or other human interests, resulting in high wolf mortality. The DAUs dominated by private agricultural land in marginal wolf habitat will likely have more liberal hunting seasons, high levels of lethal removal, and little or no wolf pack activity. Although regulated harvest will be used to address some conflicts and population levels, where appropriate, normal conflict resolution activities including agency control and various nonlethal techniques will likely be necessary to effectively manage wolves.

Population Management

Numbers of wolves, packs, and breeding pairs varies greatly among DAUs. Some DAUs have few or no wolves, some have colonizing populations, and some are apparently saturated and acting as a source of wolves for surrounding areas. Population management will be based on metapopulation status, statewide population status, and DAU and GMU status and conflict levels. Prime wolf habitat in north-central Idaho where livestock conflicts are minimal has likely reached saturation levels (carrying capacity) for wolves. Populations are expanding into less than optimal habitat where conflicts are more common.

Northern Rocky Mountain (NRM) Metapopulation

Wolf DAUs were also designed to allow flexibility and improve management of wolf metapopulation connectivity between Montana and Wyoming. Rather than designating small, discrete DAUs along the Montana and YNP borders, GMUs were placed in larger groupings to provide greater flexibility in conflict and population management while maintaining avenues for connectivity within the metapopulation. Wolves will be allowed to persist along the border in these areas if they remain mostly free of conflict, though some harvest may be allowed. Travel between core populations across state borders and into YNP can be enhanced through restricted harvest and limited control actions during peak dispersal periods and during breeding season. In particular, GMUs 30, 30A, 58, 59, 59A, and 61 will be closely monitored and managed for connectivity. Maintaining adequate packs within DAUs and focusing on border units is expected to assure continued dispersal and genetic exchange among states. Border packs are numerous (13 along Idaho-Montana border) and the 3 NRM recovery states and YNP are committed to continued communication and coordination of border pack management. The USFWS does not require or expect that wolf movement be encouraged to states beyond Wyoming and Montana. However, wolves have displayed long-range movements into adjacent states and such movements are likely to continue. Idaho will coordinate with neighboring states to reach consensus on corridor management and metapopulation connectivity. Connectivity, as it relates to long-term genetic isolation in the Greater Yellowstone Area is addressed through the above management actions and the innate ability of wolves to disperse long distances.

Wolf Management DAUs

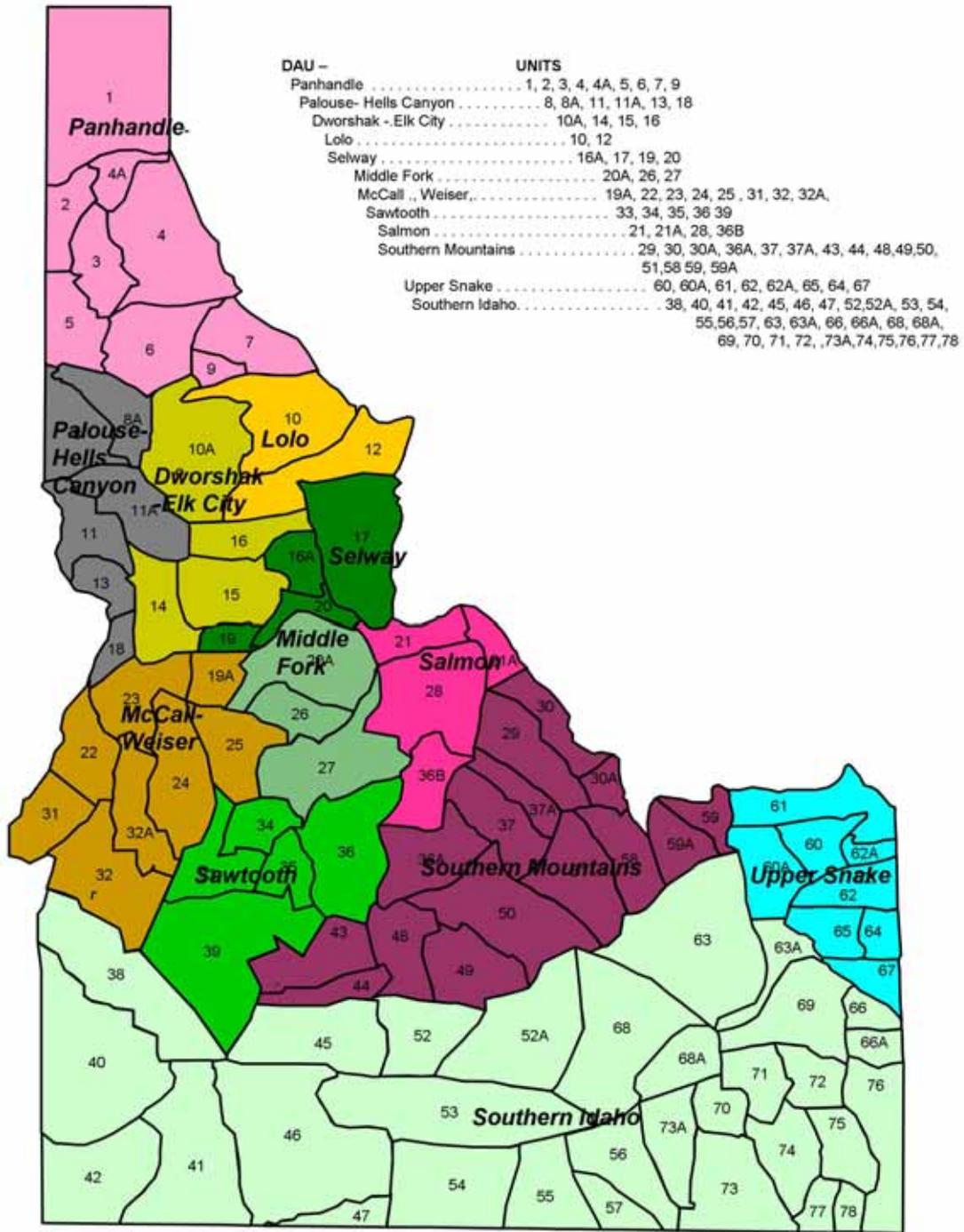


Figure 6.1. Wolf Data Analysis Units, Idaho.

7. POPULATION AND CONFLICT MANAGEMENT

Harvest Strategies

The 2002 State Plan calls for managing wolves similar to other big game animals such as black bears and mountain lions. Existing rules and laws provide an adequate regulatory framework to manage wolves through hunting. Regulated harvest will likely provide the most effective tool for management of wolf populations and providing harvest opportunity. Harvest opportunity can be altered through harvest quotas, season length and timing, bag limits, method of take, and other regulatory tools depending on objectives (Table 7.1). Hunting and trapping opportunities would be reduced or terminated if wolf populations drop to ≤ 20 breeding pairs statewide in order to provide an adequate buffer to allow annual harvest opportunity as well as flexibility to manage conflicts.

Regulated Harvest

Statewide wolf population objectives can change, but for the first 5 years following delisting, the Department will seek to maintain the population at 2005-2007 levels (approximately 500-700 wolves) through harvest objectives. Quotas and controlled hunts will be used to ensure population objectives are met.

An established wolf population should stabilize with 30-40% total annual mortality, or a human-caused mortality rate of 20-25% (Mech and Boitani 2003:184). The wolf population in Idaho increased 20% per year in recent years despite annual estimated mortality of approximately 20% (Nadeau et al. 2007). Harvest strategies for differing objectives will need to incorporate population growth rate, other sources of mortality, and area-specific circumstances.

The statewide population estimate and objective will be compared to determine population surplus. Annual mortality from non-hunting causes will be subtracted from the population surplus to estimate harvestable surplus. Quotas will be allocated by objective and availability across DAUs or GMUs.

As is the case with other big game animals, wolf population objectives within or among DAUs can fluctuate over time. At the DAU or GMU level for instance, if an elk population is declining and below objective and wolf predation rates are a cause for the decline or preventing recovery, then higher levels of wolf harvest may be prescribed to reduce the wolf population. In rare situations of predation that cannot be addressed through regular harvest, a predation management plan would be developed per IDFG policy (Appendix C, Table 7.1 Sec. E). Reducing wolf populations would be temporary in nature to allow the ungulate population to reach recovery levels and objectives.

Table 7.1. Potential management tools for varying levels of harvest.

Level of Harvest	Management Tools
Low-moderate (0-40% mortality)	<p><u>A. General harvest, sustain populations</u></p> <ul style="list-style-type: none"> • General seasons • Harvest quotas • Controlled hunts • Tag quotas • Season length (outside framework = Aug 30 – Mar 31) • Usual season = Oct – Nov • Trapping under certain conditions
High ($\geq 40\%$ mortality)	<p><u>B. General harvest, reduce populations</u></p> <ul style="list-style-type: none"> • No quotas, general seasons • Multiple tags • Increased season length • Trapping, snaring • Depredation hunts • Baiting pursuant to current rules for bears • Decreased tag prices • Allow harvest with deer or elk tag • Add to Sportsman’s Package • Enhanced outfitter harvest • Increased focus on training and opportunity via sportsmen clinics, etc. <p>NOTE: AERIAL HUNTING NOT ALLOWED AS A SPORT HARVEST TOOL. POISON NOT ALLOWED UNDER ANY CIRCUMSTANCE.</p>
<i>Nonlethal and proactive techniques</i>	<p><u>C. Livestock depredations</u></p> <ul style="list-style-type: none"> • Landowner Sportsmen Coordinators/wolf biologists work with producers • Provide information on known pack den sites/rendezvous sites • Provide radio receivers and frequencies in problem areas • Work with non-governmental organizations to provide funds for dogs, equipment, personnel • Volunteer hazers • Provide information to reduce conflicts
<i>Lethal techniques</i>	<p><u>D. Livestock depredations (target decrease in population, tools are additive to A. through C.)</u></p> <ul style="list-style-type: none"> • Regulated hunting • Increase harvest as in B. above • Depredation hunts • Producers and employees • Can kill in act of molesting or attacking livestock

Table 7.1. Continued.

Level of Harvest	Management Tools
	<ul style="list-style-type: none"> • Can kill with tag(s) during hunting season without evidence of molestation or attack • Wildlife Services (WS) current legal methods will continue
High ($\geq 40\%$ mortality)	<p><u>E. Ungulates not meeting objectives despite A-D above already implemented</u></p> <p>Predation Management Plan per IFGC policy</p> <ul style="list-style-type: none"> • Public input • Science review of reasons for population not meeting objectives and research/adaptive approach • Economic considerations • Commission approval <p>Tools</p> <ul style="list-style-type: none"> • Maintain increased harvest with assistance of A-D • Increased harvest using specialists • Trapping and relocating if feasible and statewide threshold near 20 BP • Investigate agency action options w/without WS including: <ul style="list-style-type: none"> • Trapping/snaring/shooting • WS current legal control methods in non-wilderness areas when population mortality targets cannot be met after all other techniques employed (A-E) • NEPA issues: WS involvement, federal funding • Commission approval <p style="background-color: #cccccc; padding: 2px;">NOTE: POISONING OF WOLVES NOT ALLOWED UNDER EPA RULES ASSOCIATED WITH M-44 OR OTHER POISONS, NOT A CURRENT LEGAL TECHNIQUE FOR CONTROL OF WOLVES BY WS, WILL NOT BE AFTER DELISTING</p>

Harvest strategies for wolf hunting opportunities will include general hunts, quotas, and controlled hunts. Season length and timing will be based on harvest objectives and include consideration of incidental harvest during deer and elk seasons (when the largest number of hunters are afield), pelt condition, and breeding ecology (denning and pup-rearing season). The first recommended season statewide will be mid-October to late November. If harvest objectives cannot be achieved with shorter seasons and high quotas, a general season may run concurrent with mountain lion seasons (30 Aug to 31 Mar) with a harvest quota. Over time, quotas may be distributed among user groups and throughout various seasons (e.g. archery-only season, winter muzzleloader, trapping) to provide a maximum diversity of user types and opportunities. Similarly, in areas where wolf populations have been low, but where conflicts are potentially quite high, long general seasons may be the preferred management tool. In DAUs where wolves are common and cause chronic livestock conflicts, harvest strategies will be aggressive to achieve lower populations and reduce conflicts. Across most of the state, a general season during October-November with harvest quotas will likely be the norm for maintaining stable populations and providing annual harvest opportunity. In cases where conflict potential and significant non-consumptive value may overlap, managers may employ smaller controlled hunts or depredation hunts to target problem wolves or wolf pack territories while avoiding harvest of wolves that do not cause conflict (Table 7.2). Table 7.2 identifies short-term harvest strategies for all DAUs. In 6 of 12 DAUs the objective is to initially decrease populations, followed by stabilization at a lower level. These 6 DAUs currently experience moderate to high levels of livestock or ungulate conflicts. Some level of conflict will occur despite harvest, but the statewide goal is to reduce conflicts (not populations) to the 2003 level. The statewide population objective reflects reductions in some DAUs while stabilizing populations in remaining DAUs. Harvest will be focused on GMUs with most conflicts for the first few years. Strategies for allocating harvest will include annual monitoring to determine impacts of increased harvest on conflict reduction or ungulate population performance. In the event conflict levels change in a DAU, this plan provides flexibility to address that change through harvest and agency control action. Recommendations for harvest quotas will be annually reviewed and adjusted accordingly, as is the case for all big game species. Statewide population goals for the 5-year post delisting period would not change beyond the established range of 2005-2007 levels.

Harvest alone may not eliminate conflicts, but livestock depredations should decrease if harvest is focused on conflict areas or packs involved in depredations. Regardless, the relationship between wolf removal rates and depredation incidents will be monitored over time. Additionally, the hunter survey indicated that once populations are managed, support for wolves in the state will increase among hunters (Appendix A). Thus, providing an annual harvest opportunity may improve the perception and acceptance of wolves among many hunters who may currently oppose wolves in Idaho.

Table 7.2. Current conflicts, short- term harvest strategy, and population status for wolves. Area-specific harvest objectives and quotas will be established annually.

Wolf DAU (GMUs)	Current conflict levels	Potential for livestock conflicts	Current population trend	Short-term harvest strategy (1-5 yr)	Breeding pair number documented	Current packs documented
Statewide			Increasing	Decrease/ Stabilize	43	≥83
Panhandle (1-7, 9)	Ungulate - low Livestock - low	Moderate	Increasing	Stabilize	1	8
Palouse- Hells Canyon (8, 8A, 11, 11A, 13, 18)	Ungulate - low Livestock - moderate	High	Increasing	Stabilize	1	2
Lolo (10, 12)	Ungulate - high Livestock - low	Low	Stable	Decrease/ Stabilize	7	10
Dworshak-Elk City (10A, 14-16)	Ungulate - moderate Livestock - moderate	Moderate	Stable- increasing	Decrease/ Stabilize	6	9
Selway (16A, 17, 19, 20)	Ungulate - high Livestock - low	Low	Stable	Decrease/ Stabilize	3	5
Middle Fork (20A, 26, 27)	Ungulate - moderate Livestock - low	Low	Stable	Stabilize	4	8
Salmon (21, 21A, 28, 36B)	Ungulate - moderate Livestock - high	High	Stable	Decrease/ Stabilize	4	7
McCall-Weiser (19A, 22-25, 31-32A)	Ungulate - low Livestock - high	High	Stable- increasing	Decrease/ Stabilize	4	10
Sawtooth (33-36, 39)	Ungulate - moderate Livestock - moderate	Moderate- High	Stable- increasing	Stabilize	10	14
Southern Mountains (29-30A, 36A, 37, 37A, 43, 44, 48-51,58-59A)	Ungulate - low Livestock - high	High	Stable	Decrease/ Stabilize	2	8
Upper Snake (60-62A, 64, 65, 67,)	Ungulate - low Livestock- moderate	Moderate	Stable	Stabilize	1	1
South Idaho (38, 40-42, 45-47, 52-57, 63, 63A, 66, 66A, 68-78)	Ungulate - low Livestock - low	Moderate- High	Increasing	Stabilize	0	1

Current ungulate conflicts: Low = healthy ungulate populations, biologically acceptable impacts. Moderate = ungulate populations display below average recruitment or survival because of wolf predation; ungulate hunting opportunity may be reduced. High = ungulate populations in decline because of low recruitment or female survival caused by high wolf predation rates; ungulate population below management objectives (see “unacceptable effects” Sec. 9).

Current livestock conflicts: low = infrequent livestock conflicts despite presence of wolves, mostly public land; moderate = some livestock problems annually, but manageable, mix of private and public land; high = livestock problems typically occur as soon as livestock put out on public land, or wolves regularly attack livestock on private land; wolves not likely to coexist conflict free due to high level of private land and/or livestock use. **Potential livestock conflict levels:** low = infrequent livestock conflicts despite presence of wolves, mostly public land; moderate = some livestock problems expected but manageable, mix of private/public; high = livestock problems likely or frequent, mostly private land, not likely for wolves to live conflict free.

Short-term DAU Harvest Strategy: Increase population= Low harvest; Stabilize population= Light-Moderate harvest =; Decrease population= Moderate-High harvest, scenarios reflective of Table 7.1. **Current Breeding Pair Number Documented:** a breeding pair is a ≥2 adults and ≥2 pups that survive until 31 December. Not all packs are breeding pairs. Status was determined December 31 2007. **Current packs documented:** packs are breeding pairs, reproductive groups, groups of ≥4 that previously were reproductive. These are packs that have been confirmed by agency personnel.

Tribal Harvest

An agreement between the Governor of Idaho and the NPT Executive Committee completed in 2005 will govern tribal harvest on the Nez Perce Reservation and within the open and unclaimed lands within the treaty territory as identified under treaty rights (MOU, Appendix B). The agreement identifies a sliding scale harvest that will allow the NPT a Fair Share Allocation whenever a harvestable surplus of wolves occurs as follows:

<u>Harvestable Surplus</u>	<u>Allocation Formula</u>
50 or less	50% State:50% NPT
51-75	55% State:45% NPT; not <25 wolves for NPT
76-100	60% State:40% NPT; not <34 wolves for NPT
Greater than 100	65% State:35% NPT; not <40 wolves for NPT

Each party will establish wolf harvest regulations and enforce them. Both parties will monitor harvest of wolves by their respective constituents and report harvest annually to each other. The NPT will establish and promulgate wolf harvest regulations through Tribal Code and develop a regulatory process to manage harvest by enrolled Nez Perce tribal members. Tribal regulations will be established prior to allowing hunting by tribal members. The agreement between the State and NPT established a policy group that will review Tribal and State plans for wolf harvest management, and this group will recommend annual allocation levels. A letter and plan explaining the NPT commitment to these goals and how they will address them will be forthcoming.

Long- and Short-term Population and Harvest Objectives

Several management issues must be considered when establishing quotas and population goals for long-term as well as short-term objectives:

Short-term objectives

1. Establish statewide harvestable surplus with buffer or confidence interval.
 - a. 0-30% total mortality = increasing population.
 - b. 30-40% total mortality = stable population
 - c. >40% total mortality = declining population
2. Develop area-specific (e.g., DAU, GMU) harvest quotas based on current status relative to population objectives, harvestable surplus, and total mortality levels (1. a-c).
3. Confirm mortality limits and harvestable surplus through monitoring of live and harvested wolves, age structure, distribution, conflict levels, population health, connectivity, and other factors that may cause variation in mortality limits.
4. Ensure agency ability to monitor breeding pairs at the end of December (with regard to meeting monitoring requirements during the 5-year post-delisting period).

Long-term objectives

1. Providing metapopulation linkage and population viability through adequate protection of border packs between Montana and Wyoming. Harvest objectives will take into account border pack transboundary movements and connectivity. Metapopulation health and connectivity is a stated objective and will be monitored.

2. Regular monitoring of wolf health to ensure disease or parasites do not contribute to excessive mortality. The Department will continue monitoring wolf health through observation and sample collection from wolf carcasses (e.g., found dead, result of control actions), captured wolves, and harvested wolves (via mandatory check procedure), as well as other surveillance techniques.
3. Status of wolf populations in adjacent states (e.g., if adjacent states approach minimum population limits, adjust Idaho harvest of border pack animals so that overall recovery area goals are not threatened). Status of shared or border packs will be monitored through annual reports, regular communication, and manager meetings.
4. Monitor impacts of Idaho harvest adjacent to YNP and associated social values.

If, at any time, the wolf population level falls below acceptable limits, an emergency order will be implemented by the Director to curtail harvest and lethal control (Idaho Code 36-106 [Sec. 6A]). Harvest management will be modified as necessary to incorporate information, data, and knowledge obtained after initial harvest strategies are implemented.

Livestock Depredation Control

Landowner/Sportsmen Coordinator Program

Following delisting, wolf depredation management decisions will be transitioned from headquarters (wolf program coordinator) to the regions, similar to all other wildlife depredation issues. The depredation program is governed by Idaho Statute and monitored by the Fish and Game Advisory Committee. This committee is developing a program to fund compensation for wolf depredations after delisting.

The Department employs a Landowner/ Sportsmen Coordinator (LSC) biologist in each region. This biologist oversees landowner relations and reviews wildlife complaints and depredations. Typical LSC duties involve handling complaints from landowners and devising nonlethal techniques to reduce impacts from big game. The LSC programs have been effective at reducing impacts from bears on apiaries; reducing impacts from deer and elk on grain and legume fields; and providing fencing materials, noise makers, and a variety of depredation reduction techniques and equipment across the state. Regional LSC staff will work directly with wolf biologists and USFS, Bureau of Land Management, and WS personnel to reduce impacts on producers, livestock, and wolves. Should lethal techniques be required, the Regional Supervisor will coordinate with WS to authorize control or contact hunters to assist in lethal removal.

Wildlife Services and Harvest

Wolf control following delisting will be directed by the MOU between the Animal Damage Control Board, WS, and IDFG (IDFG and Idaho State Animal Damage Control Board 2005). Hunting activities will likely reduce conflicts between wolves and livestock, but will not replace the need for agency control activities. Conflict resolution procedures will follow protocols similar to those that have been in place since 2005 and take into account population objectives within the DAU and landowner and producer concerns. During established seasons, efforts will be made to enlist hunters to remove problem wolves. Outside of established seasons, depredation hunts will be used when and where feasible to remove wolves involved in depredations. Intensity and timing of removal will be determined by wolf population status in a DAU. For example, in DAUs where the objective is to decrease populations, removal may be

more aggressive than in DAUs where the objective is to increase or stabilize the population. Regardless of population objective, IDFG and WS will continue to address conflicts in a timely fashion and with methods appropriate to the specific circumstances.

A successful wolf management and livestock conflict reduction program will include: 1) proactive nonlethal efforts, 2) population reduction in high conflict areas using hunters, 3) removing depredating wolves using professional field agents and hunters, and 4) compensation for losses.

As specified in state law (36-1107 (b)) for other wildlife species, lethal removal of wolves to protect private property will be allowed under specific circumstances, including self defense. As is the case with other species, a permit to lethally remove problem wolves may be required in some cases.

Removal to Increase Ungulates

The primary tool for wolf population management will be regulated harvest through standard seasons (Table 7.1). In the event that regulated harvest is not adequate to reach a balance between wolves and prey, a more aggressive approach, guided by a predation management plan may be necessary. Any wolf predation management proposal will include biological criteria appropriate to the circumstances. Criteria would include prey population status and trend relative to objectives, as well as specific measures of prey productivity such as calf:cow ratios and adult cow survival. If agency removal is required to achieve wolf population reduction beyond that achieved through regulated harvest, any control action would adhere to the IDFG Predation Management Policy (Appendix C). Such removal would be included in statewide mortality objectives, so statewide populations would always remain healthy and viable despite localized population reduction under a Predation Management Plan.

Population and Harvest Monitoring

The USFWS developed a post-delisting monitoring plan and delisting rule that requires Idaho, Montana, and Wyoming to maintain ≥ 30 breeding pairs and ≥ 300 wolves well distributed among the 3 states, including ≥ 10 breeding pairs and ≥ 100 wolves per state. During the first 5 years following delisting, federal law requires intensive monitoring to ensure the wolf population in Idaho is maintained above levels identified in the 2002 State Plan (≥ 15 breeding pairs). If any of these numerical requirements are not met, the USFWS would initiate a status review to determine if relisting is necessary. Thus, IDFG and the NPT will continue annual monitoring to quantify the number of packs, breeding pairs, and total wolves. During this time, harvest and monitoring strategies will be closely examined under an adaptive management framework.

Importantly, a pack and a breeding pair are not synonymous (Table 7.3, Mitchell et al. 2008). A pack is defined by the USFWS as simply 2 wolves traveling together, but a breeding pair is narrowly defined as “2 adults that produce a minimum of 2 pups that survive until December 31.” Therefore, not all packs may qualify as a breeding pair. The breeding pair definition requires more intensive monitoring. If pup counts have not been conducted or if survival data are limited, it is difficult to determine if a pack qualifies as a breeding pair. At a minimum, a pack must include ≥ 4 members to be classified as a breeding pair. Therefore, IDFG and the NPT

define a pack as ≥ 4 wolves traveling together. Ascertaining breeding pairs may become more problematic if harvest reduces the number of radiocollared wolves. Therefore, IDFG will retain an adequate sample of radiocollared wolves during the 5-year post delisting period to demonstrate that ≥ 15 breeding pairs are maintained at the end of the year.

Recent development of a surrogate method for determining breeding pair status based on pack size (Mitchell et al. 2008, Table 7.3) may reduce the level of monitoring intensity required to verify minimum breeding pair status. In essence, a historical record now exists that provides a correlation between pack size and the probability of that pack meeting the definition of a breeding pair. As pack size increases, the probability that the pack meets breeding pair status increases. For example, the probability that a pack of 10 wolves is a breeding pair is 0.95. Therefore, the model will allow managers to develop probabilistic estimates of breeding pairs on a statewide basis. Because pack size is easier to obtain than pup survival data, monitoring effort may be reduced.

Table 7.3. Probability (\hat{P}) of a wolf pack of size i containing a successful breeding pair (1 adult male, 1 adult female, and ≥ 2 pups), Idaho, 1996-2005 (adapted from Mitchell et al. 2008).

	Pack size										
	4	5	6	7	8	9	10	11	12	13	≥ 14
Breeding pair probability	0.65	0.73	0.80	0.85	0.89	0.93	0.95	0.96	0.97	0.98	0.99

To determine appropriate harvest levels of wolves, IDFG will continue to verify wolf pack activity and estimate wolf populations. Currently, wolf population estimates in Idaho are generated by using extensive information derived from radiocollared individuals. Biologists also derive estimates of reproduction, mortality, pack size, pack territories, habits, and other variables. This information, combined with public observation records and intensive field efforts, is used to verify new pack activity and develop a statewide population estimate (Nadeau et al. 2007, 2008; Appendix A). The NPT, University of Montana, and IDFG are cooperating to develop alternative methods to monitor wolves in Idaho that do not require radiocollars on most packs.

Hunters will be required to present the hide and skull of wolves to an IDFG representative within 10 days of harvest. Wolf pelts will be marked with a metal tag and a tooth will be extracted for age determination, similar to procedures for black bears and mountain lions. Hunters will be required to provide license, tag, and harvest information (date, location, hunting method, etc.). In general, hunters will be required to contact IDFG to report harvest from areas with harvest quotas within 24 hours using a toll-free number. Area-specific seasons will be closed when quotas are reached. A license and wolf tag will be required prior to harvest. Existence of tags specific to wolves will allow IDFG to conduct surveys of wolf hunters to determine satisfaction levels, motivation, and other information pertinent to hunt management.

Disease and Parasite Management

Department staff and IDFG veterinarians will continue to monitor wolf health through continued necropsies of dead wolves and biological sampling from captured live wolves. Necropsies provide information on condition, age, reproductive status, food habits, and cause of death, as well as the geographic distribution and prevalence of diseases and parasites. Analysis of biological samples such as blood, feces, and skin scrapings provide similar information on diseases and parasites. Collaboration with researchers interested in studying wolf diseases and parasites and other aspects of wolf health and biology will occur when feasible.

At this time, diseases and parasites do not pose a significant threat to the Idaho wolf population. If health monitoring of wolves indicates that diseases and parasites pose a significant threat to the population, managers will evaluate options for more active management and appropriate actions. If, at any time, the wolf population level falls below acceptable limits, an emergency order will be implemented by the Director to curtail harvest and lethal control (Idaho Code 36-106(Sec. 6A)).

Adaptive Management

Wolf population management will be adaptive to changing biological and social conditions. Wolf hunting rules will be based on a regulated approach to harvest (Table 7.1 Sec. A). The population goal for this period will be to stabilize the population at 2005 to 2007 levels (518-732). In subsequent seasons, biologists will evaluate previous harvest information, mandatory report data, monitoring information, breeding pair and population status, and public input to revise harvest recommendations. Research and scientific adaptive management will play an integral role in learning about wolf harvest and helping guide management efforts into the future.

8. FINANCIAL PLAN

To date, the state's wolf program has been funded with congressional appropriations. The Department and the NPT will continue to collaborate to obtain adequate federal funding for wolf monitoring and management. However, federal funding may decline or be eliminated after delisting. Given the possibility of reduced federal funding, the state and federal governments must determine how to appropriate funds and allocate resources for future wolf monitoring and management.

The current wolf management budget for the State of Idaho is approximately \$720,000, currently allocated among the following areas: state management, monitoring, enforcement, information and education; livestock management; livestock compensation; and increased ungulate monitoring and research. How funding is allocated among these areas is prioritized based on need and amounts available. Wolf monitoring and management will be primary during the 5 years following delisting.

In addition, the NPT obtains \$380,000 from congressional appropriations to maintain current levels of wolf monitoring and coordination. The NPT currently does not receive any state funding.

An obvious revenue source is sale of tags for regulated hunting of wolves, though there is some opposition to the use of license and tag fees to fund the program. License fees may help fill funding shortfalls. The statewide random survey of hunters indicated 72% would hunt wolves if allowed, and 56% would hunt every year. The average price these hunters would pay for a wolf tag was \$42; the median was \$20. Current tag price, set by 2006 Idaho legislature, is \$9.50. The entire wolf management program could be funded by sales of approximately 29,000 tags if resident tag fees were increased to \$25. For comparison, IDFG issued approximately 33,000 bear tags and 22,000 mountain lion tags in 2005 (18,000 of which were included in the Sportsman's Package license). Based on a survey in 2004, only 13,000 of hunters who purchased a bear tag actively hunted bears (IDFG 2005c).

The 2002 State Plan allows use of state funds for managing conflicts. However, if federal funding were reduced, additional funding sources may be necessary to maintain the level of monitoring and management to which the public has become accustomed. Alternate funding may be generated through an auction or raffle tag program (at least during the first year that harvest is allowed). Further, federal funding for wolf management may be available through cost-share programs (e.g., Federal Aid in Wildlife Restoration Act). Additional funding may be available from sale of wolf pelts or carcasses (via the Department's annual "fur" sale), grants through non-governmental organizations, or other innovative approaches. Federal funds, however, are expected to be the primary funding source for wolf management in the near future.

The MOU between the State of Idaho and the NPT states continued federal funding through annual appropriations, a dedicated trust fund or other means is of critical importance to the Nez Perce Tribe and State and success of the MOU between entities. The State and Tribe recognize the benefits of collaborating to secure needed funding and submitting a joint request to Congress. The Tribe and State, through the MOU, have agreed to funding allocations as follows:

- 1) If joint appropriations for the NPT and State exceed \$1.2 million, the amount will be apportioned at 69% state and 31% NPT, but not to be < \$375,000 to the NPT.
- 2) If combined appropriations are between \$1 million and \$1.2 million, the tribal budget will be \$375,000.
- 3) If combined appropriations are <\$1 million, apportionment will be 64% State and 36% NPT.

The complete MOU can be found at

http://fishandgame.idaho.gov/cms/wildlife/wolves/state/nez_perce_tribalMOA.pdf

9. GLOSSARY OF TERMS

Allowable mortality: All known mortality, including harvest that would result in meeting wolf population objectives for a DAU or GMU.

Annual surplus: Annual recruitment minus natural mortality; typically 30-40% in Idaho. Thus annual surplus is the number of wolves that must be removed to stabilize a population.

Breeding pair: Two adults that produce a minimum of 2 pups that survive until December 31.

Chronic conflicts: As it relates to livestock, represents a pack that repeatedly causes depredations over the course of years or depredations occurring annually in an area regardless of pack longevity. Pack removal does not stop conflict in successive year.

Data Analysis Unit (DAU) or Zone: Several GMUs grouped together based on a set of criteria for the species being managed. The State of Idaho has 99 GMUs that are grouped into 12 DAUs for wolves and 29 Zones for elk. A DAU allows managers to group data for analysis purposes.

Fladry: Used by Polish wolf hunters to force wolves into range of hunters, fladry consists of a twine with flagging attached every few feet, and is attached to fencing at wolf eye level. Fladry acts as a psychological barrier to wolves, however wolves can habituate to it after a month or more of testing. Fladry can be enhanced with electric fencing to reaffirm fear with electric shock.

Game Management Unit (GMU): Geographic areas designated for management of big game populations and hunters, though they may be grouped into larger DAUs or Zones, or subdivided into smaller sections for harvest of small populations of animals. Idaho is divided into 99 GMUs.

General season: Season open for harvest without limits on hunter numbers.

Harvestable surplus: The portion of allowable mortality that can be accommodated by harvest to achieve population objectives after mortality from natural causes and control actions has been deducted.

Livestock conflicts: Low = infrequent livestock conflicts despite presence of wolves, mostly public land. Moderate = some livestock problems annually, but manageable; mix of private and public land. High = livestock problems typically occur as soon as livestock are turned out on public land, or wolves regularly attack livestock on private land; wolves not likely to coexist without conflict due to high level of private land or livestock use.

Pack: Verified group of ≥ 4 wolves traveling together and displaying territorial behavior. If a verified pack has been reduced to < 4 (2 or 3) and is still territorial, it is still considered a pack for that year. If pack size has not increased to ≥ 4 or reproduction has not occurred within 1 year, it is no longer considered a pack. If status of a previously confirmed pack is unknown and has not been verified for 2 years, the pack is no longer included in tabulations of active packs. There will likely always be more packs than breeding pairs because reproduction and survival of pups is variable.

Population goals: The number of animals or social groups to be maintained in a geographic area, typically set at statewide levels and by DAU, GMU, or Zone for big game.

Quota: A harvest quota is a limit of harvest mortality for that species in a specific geographic area. Once a quota is reached, the take season is closed for that area.

Short-term DAU harvest strategy: Increase population = low harvest rate.
Stabilize population = moderate harvest rate. Decrease population = high harvest rate.
Scenarios reflective of Table 7.1.

Source and sink populations: A source population provides an annual surplus and thus emigration to surrounding areas. A sink population experiences mortality in excess of recruitment; often in an attractive area for immigration. Source populations typically occur in areas that, due to habitat and geographic conditions or regulations, act as reservoirs, refugia, or a core habitats. A sink area might be a high conflict area.

Unacceptable conflicts: For big game, an unacceptable conflict is the inability to meet ungulate management objectives where wolf predation is a major cause of mortality limiting population performance. Evidence of such impacts will be determined through research and monitoring information.

Unacceptable effects on ungulate populations: Impact to ungulate population or herd where IDFG has determined that wolves are one of the major causes of the population or herd not meeting established State management goals. Evidence of such impacts will be revealed through research and monitoring data. This definition is similar to the USFWS definition of unacceptable impacts in the 10j rule published in the Federal Register Vol. 73, No. 18, § 17.84 on January 28, 2008.

Ungulate conflicts: Low = healthy ungulate populations, biologically acceptable impacts. Moderate = ungulate populations display below average recruitment or survival because of wolf predation; ungulate hunting opportunity may be reduced. High = ungulate populations in decline because of low recruitment or female survival caused by high wolf predation rates; ungulate population below management objectives (see “unacceptable effects” above).

Wolf harvest objectives: The proportion of an area-specific wolf population to be removed to reach a population or population trajectory goal. Harvest objectives will be determined through monitoring reproduction, disease, and mortality factors; and status relative to population objectives. The general framework for harvest objectives will be based on the following: decrease population: ≥ 40 -75% total annual mortality; stable population: 30-40% total annual mortality; increase populations: 0-30% total annual mortality.

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APPENDIX A

Public Survey

During summer 2007, Idaho citizens were randomly surveyed (Appendix A) including:

1. One thousand Idaho citizens (“Random” group; age ≥ 18 , names randomly selected by Survey Sampling International, La Quinta, CA, www.surveysampling.com). These people were randomly selected according to population distribution in Idaho; therefore, a higher proportion was urban, and a lower proportion rural, than in the Hunter group.
2. One thousand Idaho hunters (“Hunter” group; age ≥ 18 , from IDFG database of hunters who reported hunting deer or elk in 2006). These were stratified evenly among 7 IDFG administrative regions ($n = 125$ in each of 7 regions, and 125 among all other states, total = 1,000). Therefore, this group included more rural representation, distributed across the state, than did the Random group.
3. One thousand livestock growers (“Livestock” group; 70% cattle and 30% sheep producers; names randomly selected by the Idaho Department of Agriculture/ National Agricultural Statistics Service [cow-calf operations and cattle ranches, but not feedlots or dairies]). These were distributed proportionately to where these operations occur in Idaho.



Public Survey

IDAHO DEPARTMENT OF FISH AND GAME
600 South Walnut/P.O. Box 25
Boise, Idaho 83707

C.L. "Butch" Otter / Governor
Cal Groen / Director

July 2007

ID #:

Dear Big Game Hunter:

SURVEY OF PUBLIC PERCEPTIONS ABOUT WOLVES IN IDAHO

Wolf management in Idaho is controversial. We are doing this survey to assess public opinions about gray wolves in Idaho. You have been randomly selected from a group of Idaho residents. Your opinion is very important to us.

The Idaho Department of Fish and Game would like to know your opinions in order to manage wolves in the best possible way. The information obtained will be considered in developing a new wolf management plan for Idaho and will be shared with the Idaho Fish and Game Commission and other decision makers.

Your answers will be kept **strictly confidential**. They will not be distributed in any way that can be linked to you as an individual.

Please mail back the questionnaire in the enclosed, postage-paid envelope by **July 27, 2007**. If you don't want to participate in the survey, please mail it back unanswered so we can take you off our mailing list.

Thank you very much for expressing your opinions and helping us make critical decisions about wolf management. We appreciate your time to fill out this survey. It will help us better manage wolves to the satisfaction of all Idaho residents. Please contact us if you have additional comments or questions at (208) 334-2920 or 600 S. Walnut/P.O. Box 25, Boise ID 83707.

If you would like to receive a printed summary of the survey results, please check here _____. The results will also be on our web site in September 2007.

<http://fishandgame.idaho.gov>

Sincerely

Steve Nadeau Bruce Ackerman
Large Carnivore Manager Staff Biologist

Survey Results as of 9/22/07

Section 1. Basic Information	Random	Hunters	Livestock
Number of Surveys Mailed	#	#	#
# MAILED	1000	1000	1000
# RESPONDED	424	650	370
%RESPONDED	42	65	37
Would you like to receive a printed summary of the survey results?			
%YES	11	12	12

Section 1: Basic information on wolves.
 The following questions are designed to assess your attitudes about wolves in Idaho. All questions refer to Gray Wolves (*Canis lupus*), the only species in Idaho.

1.1. How personally important to you is the topic of "wolves in Idaho"?

Not at All Important	Slightly Important		Moderately Important	Quite Important		Extremely Important
1	2	3	4	5	6	7

1.1. How personally important to you is the topic of "wolves in Idaho"?	Total	1= Not at all Important	2= Slightly Important	3= Slightly Important	4= Moderately Important	5= Quite Important	6= Quite Important	7= Extremely Important
	#	%	%	%	%	%	%	%
Random/Not Hunter	205	5	9	11	30	16	17	12
Random/Hunter	219	1	3	3	15	19	25	34
Hunter	650	1	2	2	11	16	23	45
Livestock	370	2	1	3	9	11	27	47

1.2. Where have you received most of your information about wolves in Idaho **and** how would you like to receive information about wolves in Idaho?

Please place a check mark by all of the options which apply to you.

	How I have received information in the past	How I would like to receive information in the future
No information	_____	_____
Newspaper, magazines	_____	_____
TV	_____	_____
Radio	_____	_____
Internet	_____	_____
Public Meetings	_____	_____
Brochures	_____	_____
School	_____	_____
Hunting organizations	_____	_____
Environmental organizations	_____	_____
Social/recreational organizations	_____	_____
Farming/ranching organizations	_____	_____
Professional organizations	_____	_____
Federal/state agencies	_____	_____
Family or friends	_____	_____
Personal experience	_____	_____
Other (please describe)	_____	

SECTION 2: Wolves were exterminated from Idaho in the early 1900's. They have been listed on the federal Endangered Species List since 1973, and in 1995-96 the federal government released 35 wolves into central Idaho to re-establish wolves. Currently, there are about 673 wolves around the state. The federal recovery plan requires a minimum of 100 wolves in Idaho. The federal government is trying to remove wolves from the Endangered Species List and give management authority to the state of Idaho. Some people feel that it is a good time to de-list the wolf, yet others are concerned that the wolves won't have enough protection if they are de-listed. Still others think that wolves never should have been brought back to Idaho.

2.3. We would like to gather information about your feelings and attitudes towards wolves. Please indicate your opinion of each the following statements, using the following scale:

	Strongly Disagree (1)	Disagree (2)	Neither (3)	Agree (4)	Strongly Agree (5)
A. It is important to me that wolves exist in Idaho.	<input type="checkbox"/>				
B. It is important to me that wolf populations are healthy and self-sustaining in the U.S.	<input type="checkbox"/>				
C. Wolves should be taken off the Endangered Species List in Idaho.	<input type="checkbox"/>				
D. Wolves play an important role in Idaho's ecosystems.	<input type="checkbox"/>				
E. Wolves keep the deer and elk herds healthy by removing old and weak animals.	<input type="checkbox"/>				

2.3. Do you agree or disagree that:	GROUP	Total Responses	Mean Score	% SD	% D	% N	% A	% SA
2.3.A. It is important to me that wolves exist in Idaho.	Random/Not Hunter	205	3.48	12	14	15	34	26
	Random/Hunter	219	2.39	36	27	9	20	9
	Hunter	650	2.11	45	25	10	16	5
	Livestock	370	1.82	56	24	5	11	4
2.3.B. It is important to me that wolf populations are healthy and self-sustaining in the U.S.	Random/Not Hunter	205	3.68	8	8	18	38	27
	Random/Hunter	219	2.63	28	22	17	24	9
	Hunter	650	2.36	36	23	14	21	5
	Livestock	370	2.03	47	26	10	13	4
2.3.C. Wolves should be taken off the Endangered Species List in Idaho.	Random/Not Hunter	205	3.40	11	14	21	31	23
	Random/Hunter	219	4.26	6	4	5	29	56
	Hunter	650	4.56	3	2	3	21	71
	Livestock	370	4.45	5	2	5	20	68
2.3.D. Wolves play an important role in Idaho's ecosystems.	Random/Not Hunter	205	3.55	7	15	18	37	23
	Random/Hunter	219	2.48	27	31	12	24	5
	Hunter	650	2.23	38	27	14	16	5
	Livestock	370	2.04	44	29	9	13	5
2.3.E. Wolves keep the deer and elk herds healthy by removing old and weak animals.	Random/Not Hunter	205	3.60	6	14	11	51	18
	Random/Hunter	219	2.43	32	30	8	25	6
	Hunter	650	2.00	47	28	7	13	5
	Livestock	370	2.01	46	31	6	13	5

2.3. Continued

	Strongly Disagree (1)	Disagree (2)	Neither (3)	Agree (4)	Strongly Agree (5)
F. Humans can co-exist with wolves in Idaho.	<input type="checkbox"/>				
G. Wolves are dangerous to humans.	<input type="checkbox"/>				
H. Wolves kill too many deer and elk in Idaho.	<input type="checkbox"/>				

2.3. Do you agree or disagree that:	GROUP	Total Responses	Mean Score	% SD	% D	% N	% A	% SA
2.3.F. Humans can co-exist with wolves in Idaho.	Random/Not Hunter	205	3.58	9	15	10	44	23
	Random/Hunter	219	2.91	19	21	17	34	8
	Hunter	650	2.52	31	23	13	29	4
	Livestock	370	2.26	35	30	13	18	4
2.3.G. Wolves are dangerous to humans.	Random/Not Hunter	205	2.86	13	32	19	25	10
	Random/Hunter	219	3.29	7	20	22	37	13
	Hunter	650	3.46	6	19	19	32	23
	Livestock	370	3.71	4	14	16	39	27
2.3.H. Wolves kill too many deer and elk in Idaho.	Random/Not Hunter	205	2.73	15	36	21	19	10
	Random/Hunter	219	3.94	5	13	10	28	44
	Hunter	650	4.30	4	6	7	22	61
	Livestock	370	4.24	3	6	8	28	54

	Strongly Disagree (1)	Disagree (2)	Neither (3)	Agree (4)	Strongly Agree (5)
I. I feel that I am in danger from wolves when I am recreating or hunting in wild areas in Idaho.	<input type="checkbox"/>				
J. I feel that I am in danger from wolves near my home in Idaho.	<input type="checkbox"/>				
K. I feel that <u>my animals</u> are in danger from wolves when I am recreating or hunting in wild areas in Idaho.	<input type="checkbox"/>				
L. I feel that <u>my animals</u> are in danger from wolves near my home in Idaho.	<input type="checkbox"/>				

2.3. Do you agree or disagree that:	GROUP	Total Responses	Mean Score	% SD	% D	% N	% A	% SA
2.3.I. I feel that I am in danger from wolves when I am recreating or hunting in wild areas in Idaho.	Random/Not Hunter	205	2.41	25	34	24	11	7
	Random/Hunter	219	3.09	12	26	18	29	15
	Hunter	650	3.26	10	22	20	27	20
	Livestock	370	3.43	5	18	26	29	21
2.3.J. I feel that I am in danger from wolves near my home in Idaho.	Random/Not Hunter	205	1.95	43	35	11	4	6
	Random/Hunter	219	2.33	24	37	28	6	5
	Hunter	650	2.68	17	33	26	13	11
	Livestock	370	2.94	11	29	28	21	11

2.3.K. I feel that my animals are in danger from wolves when I am recreating or hunting in wild areas in Idaho.	Random/Not Hunter	205	2.67	20	31	22	18	9
	Random/Hunter	219	3.55	8	17	13	32	29
	Hunter	650	3.81	4	13	15	32	35
	Livestock	370	3.95	3	9	13	38	37
2.3.L. I feel that my animals are in danger from wolves near my home in Idaho.	Random/Not Hunter	205	2.11	41	29	16	7	7
	Random/Hunter	219	2.76	13	31	32	13	10
	Hunter	650	3.05	11	26	27	16	19
	Livestock	370	3.44	6	23	19	24	28

2.3. Continued

	Strongly Disagree (1)	Disagree (2)	Neither (3)	Agree (4)	Strongly Agree (5)
M. Wolves must sometimes be killed to protect sheep or cattle on public land.	<input type="checkbox"/>				
N. Letting wolf populations grow will force some ranchers and/or outfitters to go out of business.	<input type="checkbox"/>				
O. Letting wolf populations grow will greatly impact deer and elk hunting in Idaho.	<input type="checkbox"/>				

2.3. Do you agree or disagree that:	GROUP	Total Responses	Mean Score	% SD	% D	% N	% A	% SA
2.3.M. Wolves must sometimes be killed to protect sheep or cattle on public land.	Random/Not Hunter	205	3.85	9	6	8	48	30
	Random/Hunter	219	4.44	4	1	0	34	60
	Hunter	650	4.57	1	2	1	28	67
	Livestock	370	4.70	2	1	1	17	79
2.3.N. Letting wolf populations grow will force some ranchers and/or outfitters to go out of business.	Random/Not Hunter	205	2.99	10	28	23	28	10
	Random/Hunter	219	3.83	7	10	13	33	37
	Hunter	650	4.13	1	9	12	31	47
	Livestock	370	4.40	3	4	6	26	61
2.3.O. Letting wolf populations grow will greatly impact deer and elk hunting in Idaho.	Random/Not Hunter	205	3.11	8	28	23	26	15
	Random/Hunter	219	4.30	2	10	3	25	60
	Hunter	650	4.57	1	4	3	20	72
	Livestock	370	4.56	1	3	3	22	70
2.3.P. We should use hunting to reduce wolf populations where they are in conflict with livestock.	Random/Not Hunter	205	3.41	12	16	11	42	19
	Random/Hunter	219	4.31	3	6	3	31	57
	Hunter	650	4.60	1	2	3	26	68
	Livestock	370	4.59	2	2	3	22	71

P. We should use hunting to reduce wolf populations where they are in conflict with livestock.	<input type="checkbox"/>				
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	Strongly Disagree (1)	Disagree (2)	Neither (3)	Agree (4)	Strongly Agree (5)
Q. The best wolf management strategy is to reduce wolf populations to the minimum pack numbers necessary to keep them off the Endangered Species List.	<input type="checkbox"/>				
R. The best wolf management strategy is to allow wolf populations to grow within natural limits without managed hunter harvest, and without lethal control.	<input type="checkbox"/>				
S. The best wolf management strategy is to manage wolf populations so that conflicts are reduced through active management, leaving a significant buffer above minimum requirements.	<input type="checkbox"/>				
T. If Idaho Fish and Game determines there is a harvestable surplus of wolves in an area, do you think hunting should be a part of Idaho's wolf management strategy?	<input type="checkbox"/>				

2.3. Do you agree or disagree that:	GROUP	Total Responses	Mean Score	% SD	% D	% N	% A	% SA
2.3.Q. The best wolf management strategy is to reduce wolf populations to the minimum pack numbers necessary to keep them off the Endangered Species List.	Random/Not Hunter	205	2.97	16	26	15	30	13
	Random/Hunter	219	3.97	3	11	14	31	41
	Hunter	650	4.08	5	9	9	28	49
	Livestock	370	4.35	3	4	7	26	60
2.3.R. The best wolf management strategy is to allow wolf populations to grow within natural limits without managed hunter harvest, and without lethal control.	Random/Not Hunter	205	2.63	21	37	11	22	10
	Random/Hunter	219	1.61	63	24	5	7	2
	Hunter	650	1.42	72	21	4	2	2
	Livestock	370	1.46	72	19	3	3	3
2.3.S. The best wolf management strategy is to manage wolf populations so that conflicts are reduced through active management, leaving a significant buffer above minimum requirements.	Random/Not Hunter	205	3.41	5	13	26	46	9
	Random/Hunter	219	2.98	19	19	17	35	10
	Hunter	650	2.85	22	22	16	28	12
	Livestock	370	2.93	22	22	12	29	15
2.3.T. If Idaho Fish and Game determines there is a harvestable surplus of wolves in an area, do you think hunting should be a part of Idaho's wolf management strategy?	Random/Not Hunter	205	3.39	12	15	10	48	15
	Random/Hunter	219	4.31	3	3	5	37	52
	Hunter	650	4.59	1	2	3	28	67
	Livestock	370	4.34	4	2	6	33	55

2.3. Continued

2.3. Continued

	Strongly Disagree (1)	Disagree (2)	Neither (3)	Agree (4)	Strongly Agree (5)
U. I support de-listing wolves and giving management authority to the state of Idaho.	<input type="checkbox"/>				
V. It is too early to remove wolves from the Endangered Species List and give management authority to the state.	<input type="checkbox"/>				
W. Wolves are here to stay and it is time to manage them similarly to other big game animals like black bears and mountain lions.	<input type="checkbox"/>				
X. I support de-listing wolves as long as there are appropriate regulations and plans in place that protect them in the Northern Rocky Mountains.	<input type="checkbox"/>				
Y. Wolves will not have enough protection if the state of Idaho manages them.	<input type="checkbox"/>				

2.3. Do you agree or disagree that:	GROUP	Total Responses	Mean Score	% SD	% D	% N	% A	% SA
2.3.U. I support de-listing wolves and giving management authority to the state of Idaho.	Random/Not Hunter	205	3.52	11	12	14	38	24
	Random/Hunter	219	4.38	3	3	4	31	58
	Hunter	650	4.59	1	2	3	23	70
	Livestock	370	4.48	3	2	3	25	66
2.3.V. It is too early to remove wolves from the Endangered Species List and give management authority to the state.	Random/Not Hunter	205	2.71	22	26	21	19	12
	Random/Hunter	219	1.72	56	29	5	6	3
	Hunter	650	1.46	70	20	5	3	2
	Livestock	370	1.45	72	20	2	1	4
2.3.W. Wolves are here to stay and it is time to manage them similarly to other big game animals like black bears and mountain lions.	Random/Not Hunter	205	3.56	6	12	16	54	13
	Random/Hunter	219	3.73	11	6	9	46	28
	Hunter	650	3.87	12	7	5	34	42
	Livestock	370	3.42	18	10	10	36	26
2.3.X. I support de-listing wolves as long as there are appropriate regulations and plans in place that protect them in the Northern Rocky Mountains.	Random/Not Hunter	205	3.29	8	17	22	44	9
	Random/Hunter	219	3.09	13	20	23	32	12
	Hunter	650	3.10	16	16	25	31	13
	Livestock	370	2.78	21	20	27	24	8
2.3.Y. Wolves will not have enough protection if the state of Idaho manages them.	Random/Not Hunter	205	2.50	22	35	21	13	9
	Random/Hunter	219	1.78	49	35	7	5	3
	Hunter	650	1.64	59	27	8	4	2
	Livestock	370	1.58	63	25	6	3	3

2.4. If wolves kill livestock in an area, and it is determined that some wolves must be removed, would you prefer that hunters be allowed to harvest the wolves, or would you prefer that government agents kill the wolves, or both?

_____ Hunters _____ Government Agents _____ Both

GROUP	Total	% Hunters	% Gov't Agents	% Both
	#	%	%	%
Random/Not Hunter	205	14	31	54
Random/Hunter	219	20	9	71
Hunter	650	24	4	71
Livestock	370	11	7	82

2.5. Is it acceptable or unacceptable to...

	Highly Unacceptable (1)	Unacceptable (2)	Neither (3)	Acceptable (4)	Highly Acceptable (5)
A. Manage wolves in a manner similar to other animals like black bears and mountain lions?	<input type="checkbox"/>				
B. Reduce the number of wolves to produce more deer and elk for hunting?	<input type="checkbox"/>				
C. Destroy wolves that are causing problems with domestic livestock?	<input type="checkbox"/>				
D. Allow people to legally kill wolves that are threatening their dogs?	<input type="checkbox"/>				

2.5.A. Manage wolves in a manner similar to other animals like black bears and mountain lions?	GROUP	Total	Mean Score	% HU	% U	% N	% A	% HA
	Random/Not Hunter	205	3.61	6	9	15	59	12
	Random/Hunter	219	3.95	5	8	7	45	34
	Hunter	650	4.08	6	6	5	39	44
	Livestock	370	3.71	11	8	8	43	29
2.5.B. Reduce the number of wolves to produce more deer and elk for hunting?	Random/Not Hunter	205	2.87	17	29	15	27	12
	Random/Hunter	219	4.19	2	7	9	34	48
	Hunter	650	4.44	2	3	6	25	63
	Livestock	370	4.39	3	3	7	27	60
2.5.C. Destroy wolves that are causing problems with domestic livestock?	Random/Not Hunter	205	3.91	6	11	4	44	35
	Random/Hunter	219	4.55	1	2	1	33	63
	Hunter	650	4.61	2	1	1	26	70
	Livestock	370	4.74	2	0	1	16	81
2.5.D. Allow people to legally kill wolves that are threatening their dogs?	Random/Not Hunter	205	3.58	8	16	9	43	23
	Random/Hunter	219	4.31	1	6	4	36	52
	Hunter	650	4.44	3	3	6	23	65
	Livestock	370	4.53	3	3	3	20	71

2.6. Do you agree or disagree that...

	Strongly Disagree (1)	Disagree (2)	Neither (3)	Agree (4)	Strongly Agree (5)
A. I approve of the federal plan that reintroduced wolves to Idaho, Montana, and Wyoming.	<input type="checkbox"/>				
B. I'm glad that wolves were reintroduced into Idaho.	<input type="checkbox"/>				
C. The Federal government had no right to reintroduce them into Idaho.	<input type="checkbox"/>				

2.6. Do you agree or disagree that:	GROUP	Total	Mean Score	% SD	% D	% N	% A	% SA
2.6.A. I approve of the federal plan that reintroduced wolves to Idaho, Montana, and Wyoming.	Random/Not Hunter	205	3.19	18	17	13	34	19
	Random/Hunter	219	2.12	49	19	10	16	6
	Hunter	650	1.91	56	18	9	13	4
	Livestock	370	1.61	70	14	4	9	3
2.6.B. I'm glad that wolves were reintroduced into Idaho.	Random/Not Hunter	205	3.29	19	11	15	31	24
	Random/Hunter	219	2.16	48	18	11	16	7
	Hunter	650	1.83	59	15	12	11	3
	Livestock	370	1.63	70	12	5	9	3
2.6.C. The Federal government had no right to reintroduce them into Idaho.	Random/Not Hunter	205	2.57	29	26	18	12	14
	Random/Hunter	219	3.57	13	12	17	18	39
	Hunter	650	3.88	9	10	14	16	50
	Livestock	370	3.87	14	8	9	13	56

2.7. Do you feel that the current wolf population in Idaho is:

_____ Too high _____ About right _____ Too low

Section 2.		Total	Mean Score	% Too High	% About Right	% Too Low
2.7. Do you feel that the current wolf population in Idaho is:	Random/Not Hunter	205	1.72	41	46	13
	Random/Hunter	219	1.23	82	13	5
	Hunter	650	1.12	89	10	1
	Livestock	370	1.08	92	7	0

2.8. We are interested in how much people value wolves in Idaho. How much would you say that you value a wolf, compared to the following wild animals in Idaho?

I value a wolf:	More than (1)	The same as (2)	Less than (3)
Bighorn Sheep	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Moose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mountain lion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Elk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Deer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coyote	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eagle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mt. Blue Bird	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.8. How much would you say that you value a wolf, compared to the following wild animals in Idaho?						
		Total	Mean Score	% More (1)	% Same (2)	% Less (3)
2.8A. Bighorn Sheep	Random/Not Hunter	205	2.43	5	48	47
	Random/Hunter	219	2.80	1	17	82
	Hunter	650	2.87	2	10	89
	Livestock	370	2.91	1	6	93
2.8B. Moose	Random/Not Hunter	205	2.45	3	49	48
	Random/Hunter	219	2.81	1	17	82
	Hunter	650	2.87	2	10	88
	Livestock	370	2.93	1	6	93
2.8C. Mountain lion	Random/Not Hunter	205	2.29	3	66	31
	Random/Hunter	219	2.55	0	44	55
	Hunter	650	2.61	2	35	63
	Livestock	370	2.70	0	30	70
2.8D. Elk	Random/Not Hunter	205	2.41	6	47	47
	Random/Hunter	219	2.80	1	18	81
	Hunter	650	2.88	3	7	91
	Livestock	370	2.92	1	7	93
2.8E. Deer	Random/Not Hunter	205	2.41	7	46	47
	Random/Hunter	219	2.79	1	18	80
	Hunter	650	2.87	3	7	90
	Livestock	370	2.90	1	7	91

Question 2.8. (continued).

2.8. How much would you say that you value a wolf, compared to the following wild animals in Idaho?		Total	Mean Score	% More (1)	% Same (2)	% Less (3)
2.8F. Coyote	Random/Not Hunter	205	2.05	12	71	17
	Random/Hunter	219	2.27	15	42	42
	Hunter	650	2.38	12	38	50
	Livestock	370	2.54	5	36	59
2.8G. Eagle	Random/Not Hunter	205	2.52	2	45	54
	Random/Hunter	219	2.80	2	16	82
	Hunter	650	2.81	3	13	84
	Livestock	370	2.88	1	10	89
2.8H. Mt. Blue Bird	Random/Not Hunter	205	2.42	6	47	48
	Random/Hunter	219	2.67	6	22	73
	Hunter	650	2.70	7	16	77
	Livestock	370	2.84	3	9	87

SECTION 3: As mentioned in Section 2, there currently are about 673 wolves in Idaho. Some people are concerned that elk populations are declining and also that too many sheep and cattle are killed as a result of wolves. These people believe that wolf numbers should be managed, while others feel that wolf populations should be left alone. A variety of tools are available to manage predator populations. These include removal by trained professionals, managed hunting, and trapping.

3.9. Do you agree or disagree that...

	Strongly Disagree (1)	Disagree (2)	Neither (3)	Agree (4)	Strongly Agree (5)
A. Steps should be taken to manage the size of wolf populations.	<input type="checkbox"/>				
B. Wolf populations should <u>NOT</u> be managed by humans.	<input type="checkbox"/>				

3.9. Do you agree or disagree that:	GROUP	Total	Mean Score	% SD	% D	% N	% A	% SA
3.9A. Steps should be taken to manage the size of wolf populations.	Random/Not Hunter	205	3.75	7	9	11	48	25
	Random/Hunter	219	4.48	1	3	4	30	61
	Hunter	650	4.67	1	1	1	24	73
	Livestock	370	4.69	3	0	1	18	78
3.9B. Wolf populations should NOT be managed by humans.	Random/Not Hunter	205	2.29	26	45	11	10	8
	Random/Hunter	219	1.59	62	27	4	3	3
	Hunter	650	1.36	73	23	1	1	2
	Livestock	370	1.28	81	14	1	1	2

3.10. Is it acceptable or unacceptable to...

	Highly Unacceptable (1)	Unacceptable (2)	Neither (3)	Acceptable (4)	Highly Acceptable (5)
A. Allow hunters to hunt a harvestable surplus of wolves?	<input type="checkbox"/>				
B. Use trained professionals to reduce the number of wolves?	<input type="checkbox"/>				
C. Use trained professionals to only kill wolves that are causing problems with livestock or human safety?	<input type="checkbox"/>				

3.10. Is it acceptable or unacceptable to:	GROUP	Total	Mean Score	% HU	% U	% N	% A	% HA
3.10.A. Allow hunters to hunt a harvestable surplus of wolves?	Random/Not Hunter	205	3.28	15	18	10	39	18
	Random/Hunter	219	4.24	5	6	2	35	52
	Hunter	650	4.57	2	1	2	27	68
	Livestock	370	4.43	5	2	4	25	65
3.10.B. Use trained professionals to reduce the number of wolves?	Random/Not Hunter	205	3.40	7	14	23	44	11
	Random/Hunter	219	3.73	7	13	10	41	29
	Hunter	650	3.89	5	11	10	36	37
	Livestock	370	4.16	4	6	9	30	51
3.10.C. Use trained professionals to only kill wolves that are causing problems with livestock or human safety?	Random/Not Hunter	205	3.49	7	15	13	52	13
	Random/Hunter	219	3.26	11	22	13	39	15
	Hunter	650	3.08	16	23	15	32	15
	Livestock	370	3.05	17	27	10	26	20

3.11. Do you agree or disagree that...

	Strongly Disagree (1)	Disagree (2)	Neither (3)	Agree (4)	Strongly Agree (5)
A. If wolves are causing a population of elk or deer to decline below acceptable levels, wolf hunting should be allowed in order to increase deer and elk populations.	<input type="checkbox"/>				
B. There are not enough elk to go around, and hunters shouldn't have to compete with wolves for elk to harvest.	<input type="checkbox"/>				
C. In Idaho, livestock owners are allowed to legally shoot wolves which are attacking livestock on their own property. This is a good policy.	<input type="checkbox"/>				

3.11. (continued) Do you agree or disagree that...

	Strongly Disagree (1)	Disagree (2)	Neither (3)	Agree (4)	Strongly Agree (5)
D. My level of support for having wolves in Idaho would increase if there were a hunting season on wolves.	<input type="checkbox"/>				
E. I would support having wolves in Idaho <u>only</u> if hunting were allowed.	<input type="checkbox"/>				
F. I would support wolves in Idaho <u>more</u> if I knew the population was being managed to control livestock conflicts.	<input type="checkbox"/>				

3.11. Do you agree or disagree that:		Total	Mean Score	% SD	% D	% N	% A	% SA
3.11.A. If wolves are causing a population of elk or deer to decline below acceptable levels, wolf hunting should be allowed in order to increase deer and elk populations.	Random/Not Hunter	205	3.47	9	19	11	39	23
	Random/Hunter	219	4.47	1	4	3	31	61
	Hunter	650	4.71	1	1	1	21	76
	Livestock	370	4.59	2	3	2	22	71
3.11.B. There are not enough elk to go around, and hunters shouldn't have to compete with wolves for elk to harvest.	Random/Not Hunter	205	2.81	17	31	18	20	14
	Random/Hunter	219	4.02	5	9	11	30	45
	Hunter	650	4.17	3	9	9	24	55
	Livestock	370	4.08	6	6	12	27	49
3.11.C. In Idaho, livestock owners are allowed to legally shoot wolves which are attacking livestock on their own property. This is a good policy.	Random/Not Hunter	205	4.07	4	7	7	42	40
	Random/Hunter	219	4.58	1	1	2	31	65
	Hunter	650	4.71	0	1	1	23	75
	Livestock	370	4.82	1	0	1	14	85

G. I would support wolves in Idaho <u>more</u> if I knew the population was being managed to create a balance between predators and prey.	<input type="checkbox"/>				
H. I enjoy knowing there are wolves in Idaho.	<input type="checkbox"/>				
I. I would enjoy seeing a wolf in Idaho.	<input type="checkbox"/>				

3.11. Do you agree or disagree that:		Total	Mean Score	% SD	% D	% N	% A	% SA
3.11.D. My level of support for having wolves in Idaho would increase if there were a hunting season on wolves.	Random/Not Hunter	205	2.71	20	22	33	17	8
	Random/Hunter	219	3.11	13	20	22	33	12
	Hunter	650	3.29	14	12	22	33	18
	Livestock	370	3.12	14	18	28	23	17
3.11.E. I would support having wolves in Idaho only if hunting were allowed.	Random/Not Hunter	205	2.29	29	31	26	10	4
	Random/Hunter	219	2.89	15	25	26	22	11

	Hunter	650	3.16	13	18	25	27	17
	Livestock	370	2.97	17	23	23	20	17
3.11.F. I would support wolves in Idaho more if I knew the population was being managed to control livestock conflicts.	Random/Not Hunter	205	3.31	9	16	22	39	13
	Random/Hunter	219	3.27	13	15	16	44	12
	Hunter	650	3.28	14	14	19	37	16
	Livestock	370	3.48	12	14	14	36	25
3.11.G. I would support wolves in Idaho more if I knew the population was being managed to create a balance between predators and prey.	Random/Not Hunter	205	3.42	9	12	20	47	12
	Random/Hunter	219	3.35	13	13	13	46	15
	Hunter	650	3.40	14	11	15	39	20
	Livestock	370	3.28	14	16	17	34	19
3.11.H. I enjoy knowing there are wolves in Idaho.	Random/Not Hunter	205	3.51	12	9	19	33	26
	Random/Hunter	219	2.48	35	20	16	20	9
	Hunter	650	2.19	46	16	17	16	5
	Livestock	370	1.88	58	15	12	10	5
3.11.I. I would enjoy seeing a wolf in Idaho.	Random/Not Hunter	205	3.58	12	9	16	36	27
	Random/Hunter	219	2.59	32	20	15	22	11
	Hunter	650	2.38	42	15	15	21	7
	Livestock	370	2.03	49	19	15	12	5

3.12. Have you ever seen a wild wolf in Idaho?

_____ Yes _____ No

3.13. If you saw a wolf in the wild, how would it change your outdoor experience?

_____ Make it Better _____ About the same
 _____ Make it Worse _____ Depends on Situation

3.14. Would you travel to see wolves in Idaho? ___ Yes _____ No

3.15. Would you hire a guide to help you see wolves in Idaho? _____ Yes _____ No

	GROUP	Total	Mean Score	%Yes (1)	%No (2)		
3.12. Have you ever seen a wild wolf in Idaho?	Random/Not Hunter	205	1.68	32	68		
	Random/Hunter	219	1.43	57	43		
	Hunter	650	1.34	66	34		
	Livestock	370	1.36	64	36		
	GROUP	Total	Mean Score	%Make Better (1)	%The same (2)	%Make Worse (3)	% Depends (4)
3.13. If you saw a wolf in the wild, how would it change your outdoor experience?	Random/Not Hunter	205	0.82	35	14	6	45
	Random/Hunter	219	1.12	13	13	24	50
	Hunter	650	1.16	12	15	25	48
	Livestock	370	1.40	3	15	35	46
	GROUP	Total	Mean Score	%Yes (1)	%No (2)		
3.14. Would you travel to see wolves in Idaho?	Random/Not Hunter	205	1.58	42	58		
	Random/Hunter	219	1.80	20	80		
	Hunter	650	1.88	12	88		
	Livestock	370	1.93	7	93		
	GROUP	Total	Mean Score	%Yes (1)	%No (2)		
3.15. Would you hire a guide to help you see wolves in Idaho?	Random/Not Hunter	205	1.80	20	80		
	Random/Hunter	219	1.93	7	93		
	Hunter	650	1.98	2	98		
	Livestock	370	1.98	2	98		

3.16. How much would you pay a guide for a 1-day viewing experience in Idaho? \$ _____

3.16. How much would you pay a guide for a 1-day viewing experience in Idaho? (IF ANSWERED YES TO #3.15)	GROUP	Total	MEAN	MEDIAN	MIN	MAX
	Random/Not Hunter	29	123	100	5	500
	Random/Hunter	13	115	100	0	500
	Hunter	13	104	50	0	300
	Livestock	8	54	25	0	300

*only included if answered yes to Question 3.15.

3.17. What do you feel are the most critical issues about wolves in Idaho? Please list as many as you like.

SECTION 4: Questions about you.

The following demographic information will be used to better understand the answers we receive and help make conclusions about the residents of this state. These data are for statistical purposes only and will not be distributed in any way that can be linked to you as an individual.

Your responses will be completely confidential.

4.1. How would you describe yourself? (Check as many as apply).

- | | |
|---|--|
| <input type="checkbox"/> Hunter | <input type="checkbox"/> Rancher |
| <input type="checkbox"/> Angler | <input type="checkbox"/> Farmer |
| <input type="checkbox"/> River runner (canoe, kayak, raft) | <input type="checkbox"/> Animal Rights advocate |
| <input type="checkbox"/> Anti-hunting | <input type="checkbox"/> Environmentalist, Naturalist, Birdwatcher |
| <input type="checkbox"/> Motorized recreation enthusiast (ATVs, 4x4 truck, motorcycle, snowmobiles) | <input type="checkbox"/> Not particularly interested in wolves, the outdoors, or the environment |
| <input type="checkbox"/> Non-motorized recreation enthusiast (hiking, backpacking, biking, snowshoeing, cross-country skiing) | <input type="checkbox"/> Other, please describe. _____ |
| | _____ |

	Random/ Not Hunter	Random/ Hunter	Hunters	Livestock
	#	#	#	#
# RESPONDED	205	219	650	370
4.1. How would you describe yourself? (Check as many as apply).	% Yes	% Yes	% Yes	% Yes
A. Hunter	0	100	96	74
B. Angler	28	85	79	57
C. River runner (canoe, kayak, raft)	16	25	20	11
D. Anti-hunting	7	0	0	0
E. Motorized recreation enthusiast (ATVs, 4x4 truck, motorcycle, snowmobiles)	22	61	62	42
F. Non-motorized recreation enthusiast (hiking, backpacking, biking, snowshoeing, cross-country skiing)	45	42	45	34
G. Rancher	4	15	17	72
H. Farmer	9	19	16	58
I. Animal Rights advocate	13	4	3	4
J. Environmentalist, Naturalist, Birdwatcher	26	16	14	14
K. Not particularly interested in wolves, the outdoors, or the environment	7	2	1	2
L. Other, please describe.	16	10	9	13

4.1 *Column percents, do not sum to 100, can vote for more than one.

4.2. What size of community did you **grow up in** (before the age of 18) and what size of community do you **currently live in**? (Please choose just one answer that fits best for each. If you have lived in several locations, select the location where you lived the longest.)

	Grew Up In	Currently Live In
Farm, ranch, or rural area	_____	_____
Small town	_____	_____
Large town	_____	_____
Small city (or its suburbs)	_____	_____
Large city (or its suburbs)	_____	_____

4.2. What size of community did you grow up in (before the age of 18) and what size of community do you currently live in? (Please choose just one answer that fits best for each. If you have lived in several locations, select the location where you lived the longest.)	Total	Mean Score	1=	2=	3=	4=	5=
			Farm, Ranch, Rural %	Small town %	Large town %	Small city %	Large city %
Random/ Past	424	2.34	34	34	8	10	13
Random/ Present	424	2.88	18	30	14	22	16
Random/ Not Hunter/ Past	205	2.62	28	32	9	11	19
Random/ Not Hunter/ Present	205	3.12	13	27	14	26	20
Random/ Hunter/ Past	219	2.10	40	35	7	10	8
Random/ Hunter/ Present	219	2.67	23	32	13	19	13
Hunter/ Past	650	1.94	46	34	7	8	6
Hunter/ Present	650	2.26	35	32	11	15	7
Livestock/ Past	370	1.41	78	14	2	4	3
Livestock/ Present	370	1.32	82	10	3	3	2

4.3. In what year were you born?

Born in 19 ____ (please write year)

4.4. How many year(s) have you hunted in Idaho?

_____ Year(s) (please write number, put 0 if none)

4.5. How many year(s) have you lived in Idaho?

_____ Year(s) (please write number, put 0 if none)

4.6. About how many year(s) has **your family lived** in Idaho? (your parents and previous generations, not including your children)

_____ Year(s) (please write number, put 0 if none)

	GROUP	Total	Mean Age	Min Age	Max Age	Median Age
4.3. In what year were you born?	Random/ Not Hunter	193	57.1	22	96	56
	Random/ Hunter	219	54.7	20	90	54
	Hunter	630	47.1	16	86	48
	Livestock	362	56.7	13	89	56
	GROUP	Total	Mean Years	Min Years	Max Years	Median Years
4.4. How many years have you hunted in Idaho?	Random/ Not Hunter	190	6.4	0	80	0
	Random/ Hunter	216	27.8	0	70	28
	Hunter	626	22.7	0	70	20
	Livestock	370	27.9	0	75	30
4.5. How many years have you lived in Idaho?	Random/ Not Hunter	192	32.2	1	89	30
	Random/ Hunter	217	38.2	1	89	38
	Hunter	627	29.0	0	86	28
	Livestock	370	43.6	0	85	46
4.6. How many years has your family lived in Idaho?	Random/ Not Hunter	194	48.8	0	200	34
	Random/ Hunter	219	61.3	0	304	55
	Hunter	626	53.6	0	200	48
	Livestock	370	72.4	0	180	85

4.7. Are you: _____ Male _____ Female

4.8. Highest level of education that you have achieved (please check just one)

- _____ High school not completed
- _____ High school diploma or GED
- _____ Some college
- _____ Completed 4-year college degree
- _____ Some graduate school
- _____ Graduate or professional degree completed

4.7. Are you male or female?	GROUP	Total		% Male	% Female				
	Random/ Not Hunter	205		63	37				
	Random/ Hunter	219		93	7				
	Hunter	650		88	12				
	Livestock	370		84	16				
4.8. Highest level of education that you have achieved (please check just one)	GROUP	Total	Mean Score	% Not Complete H.S.	% Complete H.S.	% Some College	% Complete College	% Some Grad School	% Complete Grad School
	Random/ Not Hunter	205	4.02	3	14	29	15	12	27
	Random/ Hunter	219	3.32	5	25	36	16	5	14
	Hunter	650	3.21	6	26	38	13	5	12
	Livestock	370	3.55	5	21	33	18	3	21

4.9. Does your family have a heritage of ranching or farming?

_____ Yes _____ No

4.10. Does your family have a heritage of hunting?

_____ Yes _____ No

4.11. Are there now wolves living within 50 miles of your home?

_____ Yes _____ No _____ Uncertain

	GROUP	Total	% Yes	% No	
4.9. Does your family have a heritage of ranching or farming? (Yes/No)	Random/ Not Hunter	205	55	45	
	Random/ Hunter	219	59	41	
	Hunter	650	58	42	
	Livestock	370	XXXX	XXXX	
		Total	% Yes	% No	
4.10. Does your family have a heritage of hunting? (Yes/No)	Random/ Not Hunter	205	58	42	
	Random/ Hunter	219	86	14	
	Hunter	650	93	7	
	Livestock	370	83	17	
	GROUP	Total	% Yes	% No	% Uncertain
4.11. Are there now wolves living within 50 miles of your home? (Yes/No)	Random/ Not Hunter	205	25	21	54
	Random/ Hunter	219	60	8	32
	Hunter	650	68	12	20
	Livestock	370	64	7	28

4.12. We are interested in the kinds of organizations that Idaho residents with various viewpoints choose to belong to. Do you belong to the following kinds of organizations? (Please check all that apply)

- Hunting organizations
- Ranching/Farming organizations
- Environmental organizations
- Animal Rights organizations

4.12. We are interested in the kinds of organizations that Idaho residents with various viewpoints choose to belong to. Do you belong to the following kinds of organizations? (Please check all that apply)	GROUP	Total	% Hunting	% Ranch/Farming	% Environmental	% Animal Rights
	Random/ Not Hunter	205	2	8	9	3
	Random/ Hunter	219	43	19	7	1
	Hunter	650	50	14	5	1
	Livestock	370	27	63	7	0

4.12 *Column percents, do not sum to 100, can vote for more than one.

Please list the relevant organizations to which you belong.

(Please spell out the names of organizations -- many organizations have similar initials and abbreviations.)

SECTION 5: We would appreciate your answering the following question, to help us better understand our Idaho stakeholders. However, if you feel that this is a private matter, we respect your decision to not answer.

5.1. What is your annual family income, before taxes?

- _____ Less than \$25,000
- _____ \$25,000 to \$49,000
- _____ \$50,000 to \$99,000
- _____ \$100,000 to \$199,000
- _____ More than \$200,000

5.2. Would you like to receive email information updates from Idaho Fish and Game about wolves?

_____ Yes _____ No

If “Yes”, what is your email address? _____

5.1. What is your annual family income, before taxes?	GROUP	Total	Mean Score	% <\$25K	% \$25K to 40K	% \$50K to 99K	% \$100K to 199K	% >\$200K
	Random/ Not Hunter	205	2.63	13	28	41	15	2
	Random/ Hunter	219	2.84	7	30	40	19	4
	Hunter	650	2.73	8	30	44	15	3
	Livestock	370	2.75	6	34	44	13	3
5.2. Would you like to receive email information updates from Idaho Fish and Game about wolves? (Yes/No)	GROUP	Total		% Yes	% No			
	Random/ Not Hunter	205		26	74			
	Random/ Hunter	219		37	63			
	Hunter	650		43	57			
	Livestock	370		34	66			

5.3. Is there anything else you would like to tell us about gray wolves in Idaho? About this survey? We would appreciate any comments.

THIS SECTION FOR BIG GAME HUNTERS IN IDAHO

The Idaho Department of Fish and Game is conducting a pilot survey of big game hunters to gather information about a possible wolf hunting season which could occur in the Fall of 2008. We are seeking your input, so that we can best accommodate Idaho hunters' wishes. Your opinion is important to us, and will help us determine how many hunters would be interested in hunting wolves and what their hunting success might be. Please take a moment to answer the following questions.

H.1. If you could legally harvest a wolf, would you?
 _____ Yes _____ No _____ Maybe

H.2. If you could legally hunt a wolf every year, would you?
 _____ Yes _____ No _____ Maybe

H.3. If hunting were allowed in 2008, would you buy a wolf tag, if the price seemed reasonable to you?
 _____ Yes
 _____ No
 _____ I Don't Know
 _____ Depends on the price.

	GROUP	Total	Mean Score	% Yes	% No	% Maybe	
6. 1. If you could legally harvest a wolf, would you?	Hunter	650	1.46	72	11	17	
6. 2. If you could legally hunt a wolf every year, would you?	Hunter	650	1.69	56	19	25	
	GROUP	Total	Mean Score	% Yes	% No	% Don't Know	% Depends on Price
6.3. If hunting were allowed in 2008, would you buy a wolf tag, if the price seemed reasonable to you?	Hunter	650	2.29	54	18	12	16

H.4. What is the maximum price you would pay for a wolf hunting tag? _____

	GROUP	Total	MEAN	MIN	MAX	SD	MEDIAN	
6.4. What is the maximum price you would pay for a wolf hunting tag?	Hunter	525	41.0	0	5000	226.5	20	(64 had zero dollars)
	Hunter	461	46.7	0.01	5000	241.2	20	(omit zeroes)

H.5. Please indicate how much you agree with each of the following statements, using the following scale. Please pick only one choice for each question.

Do you agree or disagree that:	Strongly Disagree (1)	Disagree (2)	Neither (3)	Agree (4)	Strongly Agree (5)
A. I support wolf recovery and sustaining a viable wolf population in Idaho.	<input type="checkbox"/>				
B. I would support wolf recovery and sustaining a viable wolf population in Idaho, <u>only if the population of wolves were managed at a reasonable level.</u>	<input type="checkbox"/>				
C. Should the Department auction off the first few wolf tags and use the generated funds to manage wolves? (as is now done for bighorn sheep)	<input type="checkbox"/>				
D. Would you support including a wolf tag in the Sportsman’s Package, if the price were raised accordingly?	<input type="checkbox"/>				
E. The current number of wolves in Idaho has decreased your chance to harvest an elk.	<input type="checkbox"/>				
F. The current number of wolves in Idaho is damaging the elk herds where you hunt in Idaho.	<input type="checkbox"/>				

6.5. Do you agree or disagree that:	GROUP	Total	Mean Score	% SD	% D	% N	% A	% SA
6.5.A. I support wolf recovery and sustaining a viable wolf population in Idaho.	Hunters	650	2.18	43	22	13	18	4
6.5.B. I would support wolf recovery and sustaining a viable wolf population in Idaho, <u>only if the population of wolves were managed at a reasonable level.</u>	Hunters	650	2.99	23	17	11	35	13
6.5.C. Should the Department auction off the first few wolf tags and use the generated funds to manage wolves? (as is now done for bighorn sheep)	Hunters	650	2.56	29	22	19	25	6
6.5.D. Would you support including a wolf tag in the Sportsman’s Package, if the price were raised accordingly?	Hunters	650	3.52	12	10	15	41	22
6.5.E. The current number of wolves in Idaho has decreased your chance to harvest an elk.	Hunters	650	4.29	2	6	9	26	56
6.5.F. The current number of wolves in Idaho is damaging the elk herds where you hunt in Idaho.	Hunters	650	4.29	3	6	10	23	59

Please read about the following three possible harvest management scenarios and answer the questions below:

General Hunt: Unlimited number of tags, with a harvest quota for the unit or zone.

- Wolf hunting season during the fall general deer and elk seasons only.
- Hunting must stop when the quota is filled – similar to some mountain lion hunting areas.

Controlled Hunt: By unit or zone, with a drawing. Limited number of tags.

- Wolf hunting season during the fall general deer and elk seasons, and possibly longer.

Combination of hunt types and seasons: Allowing for variety of opportunities to achieve harvest objectives by unit or zone.

H.6. Of these choices outlined above, which would you prefer? (Choose one)

- _____ General Hunt
 _____ Controlled Hunt
 _____ Combination of hunt types and seasons

H.7. Should the hunt be held during the general deer and elk season (when a hunter might be able to incidentally harvest a wolf while hunting for deer or elk), OR later in winter (when pelts are more likely to be in their prime)? (Choose one)

- _____ During general deer and elk season
 _____ Later in the winter

H.8. Did you hunt big game in Idaho in the Fall of 2006? (If no, please go to Question 12.)

- _____ Yes _____ No

	GROUP	Total	% General	% Control Hunt	% Combined
6.6. Three possible harvest management scenarios are General Hunt, Controlled Hunt, or a Combination of hunt types and seasons. Which would you prefer?	Hunters	650	44	15	42
	GROUP	Total	% During Deer & Elk	% Later in Winter	% Both
6.7. Should the hunt be held during the general deer and elk season (when a hunter might be able to incidentally harvest a wolf while hunting for deer or elk), OR later in winter (when pelts are more likely to be in their prime)?	Hunters	650	59	35	6
	GROUP	Total	% Yes	% No	
6.8. Did you hunt big game in Idaho in the Fall of 2006? (If no, please go to Question 12.)	Hunters	650	97	3	

H.9. In what unit(s) did you hunt big game in Idaho in the Fall of 2006?

Unit's#: _____, _____, _____, _____

H.10. Did you see a live wolf, or wolves, **while hunting** in the Fall of 2006?

_____ Yes _____ No

	GROUP	Total	% Yes	% No
6.10. Did you see a live wolf, or wolves, while hunting in the Fall of 2006?	Hunters	650	33	67

H.11. Idaho Fish and Game is trying to estimate the possible success rate for hunting wolves. If you did see a wolf while you were hunting last year, could you have killed it? That is, were you physically within range and you had a clear shot? Please answer for up to 3 game management units (unit hunted, number days hunted).

___ Unit	___ # Days	___ Yes, a killing shot was possible	___ No, a shot was not possible
___ Unit	___ # Days	___ Yes, a killing shot was possible	___ No, a shot was not possible
___ Unit	___ # Days	___ Yes, a killing shot was possible	___ No, a shot was not possible

	GROUP	Total	% Yes	% No
6.11. Idaho Fish and Game is trying to estimate the possible success rate for hunting wolves. If you did see a wolf while you were hunting last year, could you have killed it? That is, were you physically within range and you had a clear shot? Please answer for up to 3 game management units (unit hunted, number days hunted).	Hunters	270	67	33

H.12. Have you hunted for black bears in the past?

_____ Yes _____ No

H.13. Have you hunted for mountain lions in the past?

_____ Yes _____ No

H.14. Would you be *more or less* supportive of wolf management in Idaho if wolf hunting were allowed in Idaho?

_____ More Supportive _____ Less Supportive _____ No Difference

H.15. Once wolves are de-listed in Idaho and if federal funding is cut off, how should Idaho Fish and Game fund wolf management? (please check only one)

_____ Federal funding only

_____ Idaho license dollars from selling wolf tags

_____ General funds from state taxes

_____ A combination of the above sources

_____ Other sources, please describe: _____

	GROUP	Total	% Yes	% No			
6.12. Have you hunted for black bears in the past?	Hunters	650	51	49			
6.13. Have you hunted for mountain lions in the past?	Hunters	650	27	73			
6.14. Would you be more or less supportive of wolf management in Idaho if wolf hunting were allowed in Idaho?	GROUP	Total	% More Support	% Less Support	% No Different		
	Hunters	650	57	3	40		
6.15. Once wolves are de-listed in Idaho and if federal funding is cut off, how should Idaho Fish and Game fund wolf management? (please check only one)	GROUP	Total	% Federal \$ Only	% Idaho License \$ from wolf tags	% General State Tax \$	% Combination	% Other
	Hunters	650	13	36	4	40	7

H.16. Which of these methods of sport hunting for wolves should be legal in Idaho? Check all that apply.

- Rifle hunting
- Archery hunting
- Muzzleloader hunting
- Baiting
- Predator calls or howling (not electronic)
- Trapping
- Other, please describe: _____

H.17. There were an estimated 673 wolves in 72 packs in December 2006 in Idaho. If wolf populations were managed by numbers of wolves rather than conflicts or other objectives, what number do you think would be appropriate to sustain in Idaho?

- 100 (the minimum required by law)
- 101-200
- 201-500
- 501-700
- 700+
- Don't worry about numbers, manage to reduce conflicts
- I don't know, let IDFG determine appropriate levels.

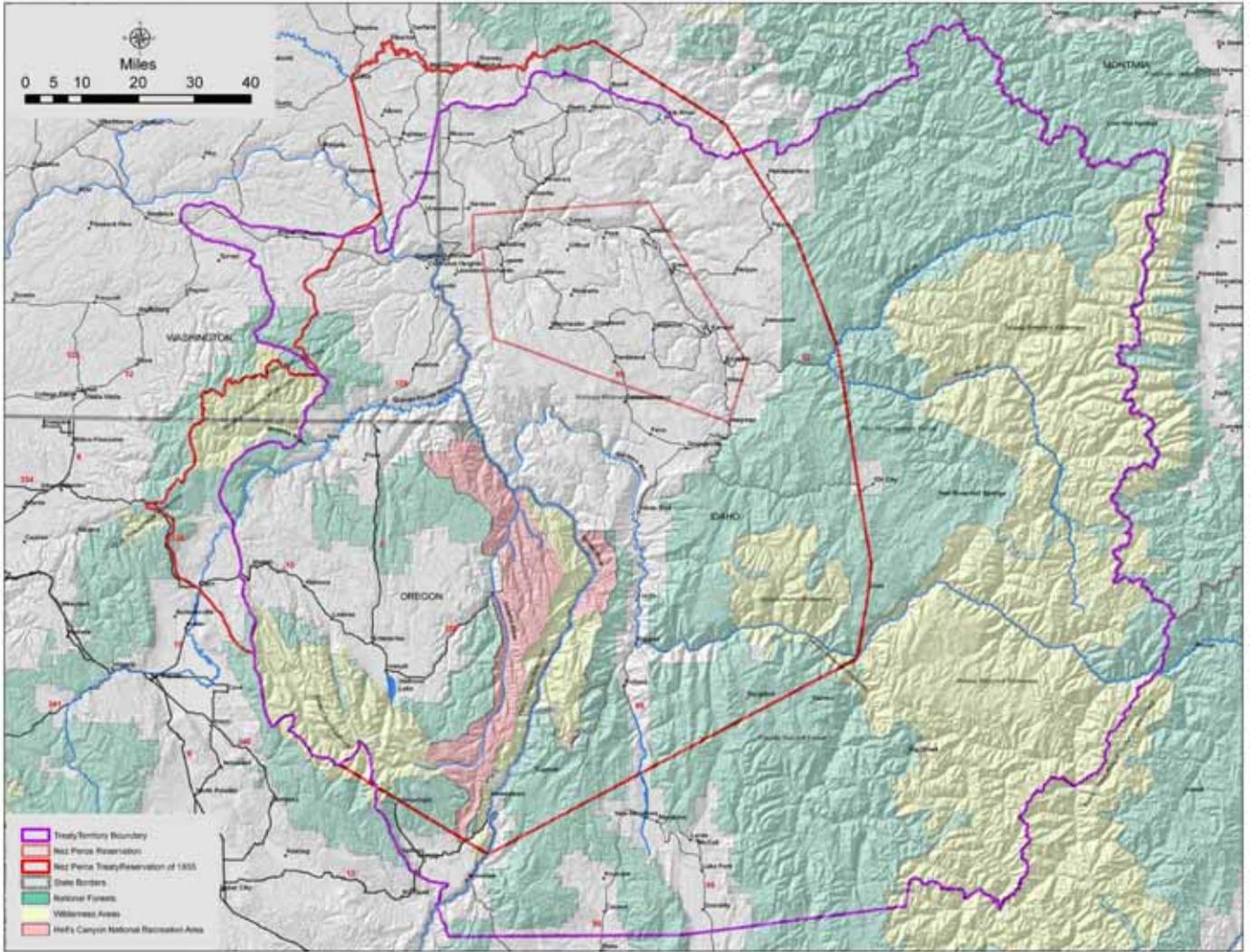
	GROUP	Total	% Rifle	% Archery	% Muzzle	% Baiting	% Non-electric Predator Calls	% Trap	% Other
6.16. Which of these methods of sport hunting for wolves should be legal in Idaho? (Check all that apply.)	Hunters	650	95	76	80	61	79	64	10
(Column %, does not sum to 100%)									
6.17. There were an estimated 673 wolves in 72 packs in December 2006 in Idaho. If wolf populations were managed by numbers of wolves rather than conflicts or other objectives, what number do you think would be appropriate to sustain in Idaho?	Hunters	650	45	13	7	1	1	15	18

6.16 *Column percents, do not sum to 100, can vote for more than one.

Thank you very much for expressing your opinions and helping us make critical decisions about wolf management.

APPENDIX B

Map of Nez Perce Tribe Territory



APPENDIX C

Policy for Avian and Mammalian Predation Management

I. Purpose

The Idaho Department of Fish and Game (Department) has a responsibility to preserve, protect, perpetuate and manage all wildlife in the state and to provide continued supplies of such wildlife for hunting, fishing and trapping. To fulfill its responsibility, the Department must efficiently and effectively manage populations of predators as well as populations of prey species to meet management objectives. The Department recognizes predator management to be a viable and legitimate wildlife management tool that must be available to wildlife managers when needed. However, the Department also recognizes that predator removal is controversial both publicly and professionally. The purpose of this policy is to provide the Department direction in managing predator populations consistent with meeting management objectives for prey species populations.

This policy does not apply to emergency response situations where the Department must act to protect human health and safety.

II. Definitions

- A. “**Predation**” means the act of an individual animal killing another live animal.
- B. “**Predator**” means any wild animal species subsisting, wholly or in part, on other living animals captured through its own efforts. Predators are defined in *Idaho Code* as ‘big game animals’ (black bear and mountain lion), ‘migratory birds’ (American crow), ‘fur-bearing animals’ (badger, bobcat, fisher, marten, mink, otter, raccoon, and red fox), and ‘predatory wildlife’ (coyote, skunk, and weasel). For the purpose of this policy, “predator” will include primarily those avian and terrestrial species subject to Idaho jurisdiction, but may in some cases include species which are protected under the Migratory Bird Treaty Act or the Endangered Species Act. For predatory species protected under these or other federal statutes, the Department may cooperate with the USDA Animal and Plant Health Inspection Service and/or the U.S. Fish and Wildlife Service in addressing predation problems caused by such species.
- C. “**Predation management**” means the application of professional wildlife management technology to increase or decrease predator populations. Predator management may include management of habitats to benefit or depress populations, selective harvest of individual animals, or generalized harvest over a geographic area.
- D. “**Predator removal**” means the physical removal of an animal, alive or dead, from an area where its presence is undesirable. Physical removal of live animals for release in habitats already occupied by the same species has been shown to create additional problems as individual animals seek living space (i.e., a home range) within already-occupied suitable habitat; for that reason, predator removal will often but not necessarily require lethal methods.
- E. “**Prey**” means any animal hunted or killed as food by a predator.

III. Policy

Predator populations, as with all wildlife in Idaho, will be managed to assure their future recreational, ecological, intrinsic, scientific, and educational values, and to limit conflicts with human enterprise and values. Where there is evidence that predation is a significant factor inhibiting the ability of a prey species to attain Department population management objectives and the Department decides to implement predation management actions, the management actions will ordinarily be directed by a predation management plan.

Predator populations will be managed through habitat manipulation and/or predator removal as appropriate. Wildlife managers and administrators implementing predation management options will consider the ecological relationships that will be affected. Management decisions will be consistent with objectives or management plans for predators, animals that constitute or contribute to the predator's prey base, affected habitat, and other biological and social constraints.

Idaho Code provides that predatory wildlife (i.e., coyotes, jackrabbits, skunks, starlings, and weasels) may be taken by any legal means at any time.

On lands managed by the Department, efforts to limit the size of predator populations may include habitat manipulation. The Department may encourage other land management agencies to manipulate habitat under their jurisdiction in a manner to limit the size or effectiveness of predator populations.

The Department, when and where feasible, will rely on sportsmen (licensed hunters and trappers) to take predators classified as game animals and fur-bearing animals, and may alter seasons or harvest rules to meet wildlife management objectives. However, the Department will not support any contests or similar activities involving the taking of predators which may portray hunting in an unethical fashion, devalue the predator, and which may be offensive to the general public. The Department opposes use of bounties as a predator control measure. The Department will not implement a program based, in whole or in part, on utilizing methods involving sterilization or birth control in wild animals.

The Department will cooperate with the Animal and Plant Health Inspection Service (APHIS) Wildlife Services Program to address specific areas and species, particularly on private lands, in a manner consistent with the approved interagency Memorandum of Understanding.

The Director may implement a Predation Management Plan in those circumstances where wildlife management objectives for prey species cannot be accomplished within 2 years by habitat manipulation, sportsman harvest, or interagency action designed to benefit the prey species, and where there is evidence that action affecting predators may aid in meeting management objectives. Essential components of such a Predation Management Plan are defined below.

This policy does not affect existing predator management policies and procedures used to administer livestock depredation issues.

IV. Procedures

Managers recognize the role of predators in an ecological and conservation context. Impacts of the removal of individual predators on the structure of the predator population, as well as the prey population, will be considered. The actions by the Department must be based on the best available scientific information, and will be evaluated in terms of risk management to all affected wildlife species and habitats.

Valid concerns for human health and safety exist. Predator management will consider the need to avoid risk of human injury, loss of life, or potential for disease transmission.

Predator management may occur but is not limited to the following circumstances:

1. In localized areas where prey populations are fragmented or isolated, or where introductions or transplants of potentially vulnerable wildlife species (e.g., bighorn sheep, wild turkeys, sharp-tailed grouse, and others) has occurred or is imminent. Control may be intensive and of sufficient duration to allow transplanted animals and their progeny to become established and to become self-sustaining, or selective with removal efforts directed at specific offending animals.
2. In specific areas where managers are unable to meet management goals and objectives for prey populations due to predation. For example, in areas where survival or recruitment of game animal populations is chronically low and management plan objectives have not been or cannot be met and where there is evidence that predation is a significant factor, predator control may be initiated.
3. On wildlife management areas, especially those which are managed primarily to provide for production of specific species (e.g., waterfowl), provision of critical winter range, and those acquired and managed to provide specific mitigation for wildlife losses elsewhere.

Predation Management Plans will consider options other than just predator removal. Various kinds of habitat manipulation can sometimes negate or minimize the effect of predators, including constructing nesting islands, providing cover plantings, or removal of roosts used by avian predators. Preventative actions are important in reducing conflicts with predators; therefore, the Department will seek ways to reduce the vulnerability of prey species to predation, and will cooperate with federal and state agencies, counties, and others to promote activities on public and private lands that will limit predator impacts. Such activities may include working with landowners and land managers to reduce winter concentrations of prey species (especially where artificially concentrated by food resources), and working with recreation managers to direct or reduce human activities that may increase the vulnerability of prey species to predators.

Predation Management Plans

Predation management plans will be prepared using the following outline:

1. *Definition of the problem.* This definition must include a rationale for the proposed action. Such a rationale may include:

- A. a proposed management action (such as the introduction of a small number of animals into suitable but unoccupied habitat) that may be adversely affected by the presence and predictable actions of predators,
 - B. a finding that approved wildlife management objectives are not being met due in large part to the actions of predators, or
 - C. evidence that wildlife recruitment or populations has been or will be adversely impacted by the presence of predators.
2. *Risk Assessment.* A discussion of the ramifications of the program, including potential effects on:
- A. predator populations (e.g., will removal of avian roosting trees near a waterfowl production area affect non-targeted species, such as bald eagles? Will removal of specific individual animals result in vacant home ranges that will be especially attractive to transient predators of the same species?),
 - B. prey or benefiting species,
 - C. sportsmen and wildlife-associated recreational opportunity,
 - D. landowners in or near the impacted area, and
 - E. groups that will strongly favor or oppose the proposed action.
3. *Program.* A discussion of the specific proposed treatment, including:
- A. clearly-defined boundaries,
 - B. the species of predator(s) affected,
 - C. the prey or other species to benefit from any proposed action,
 - D. the method or techniques identified to address identified concerns, including habitat manipulation where appropriate and the method(s) of predator removal (if removal is a component of the program),
 - E. the objective and measure of success used to determine whether that objective has been achieved,
 - F. date of initiation of actions,
 - G. measurable objectives and monitoring plans to assess program effectiveness, and
 - H. budget.

All predator management plans will be reviewed by the Chief of the Bureau of Wildlife and Regional Supervisor. Predator management plans must be approved by the Director. Predator management plans will be reviewed and evaluated annually.

V. Revision Date

This policy shall be reviewed on or before June 30, 2005.

EXHIBIT 2

Idaho Wolf Management Progress Report
March 30 - April 11, 2008

EXHIBIT 2

Idaho Wolf Management Weekly Progress Report

To: Idaho Fish and Game Staff and Cooperators

From: IDFG Wolf Program Coordinator, Steve Nadeau

Subject: Status of Gray Wolf Management, Week of March 30-April 12, 2008

Wolves in the Northern Rocky Mountains (NRM) were delisted on March 28, 2008. The USFWS successfully recovered and delisted the population with the help of state, federal, tribal and non government partners. Management of these wolves now resides with the states of Idaho, Montana, and Wyoming. The 2002 legislatively approved Wolf Conservation and Management Plan along with the March 2008 Idaho Fish and Game Wolf Population Management Plan, as well as the laws and policies of the state now govern wolf management in Idaho. Wolves are now listed as a big game animal in Idaho and protected under the laws and policies of the State of Idaho.

Once wolves were delisted, the USFWS decided to discontinue the publication of the NRM wolf weekly. Instead, for the time being, Idaho will continue publishing the Idaho specific wolf weekly. Along with the USFWS, contributors to the weekly historically have included the USDA APHIS Wildlife Services, the Nez Perce Tribe, and the states of Idaho and Montana. Wyoming was reported on by the USFWS. You may review past wolf weekly publications on our wolf webpage and links along with all pertinent and updated wolf information and publications at: <http://fishandgame.idaho.gov/cms/wildlife/wolves/>

Monitoring

Deep and lingering snows are keeping wolves in lower elevations mostly along winter range later than usual this year, providing more opportunity for wolves to be in close proximity to cattle calving operations around private ground.

Two wolves (B216, B362) died of natural causes, both from interpack strife over the last couple weeks.

Control

On 3/30, WS investigated a report that wolves had killed a calf on private land near Leadore. While there was not enough evidence left to confirm the depredation, there was enough to determine that it was "probable" that wolves killed that calf. On 4/8, WS confirmed that wolves killed a calf on a neighboring private ranch. SW-64, a radio-collared wolf that moves back and forth from Montana was in the area during both investigations. Control efforts to halt the depredations are ongoing.

WS confirmed 2 wolf depredations on cattle on the same private ranch near Lemhi. The first depredation was confirmed on 3/31 and the second on 4/1. On 4/4, WS removed three sub-adult males from a f/w aircraft. Control efforts are concluded unless another depredation is confirmed.

On 4/2, WS confirmed that a single wolf killed a calf on private land near Medicine Lodge. WS was able to follow a single set of wolf tracks from the depredation site and shot and killed the

adult, black, male wolf that committed the depredation. Control efforts are concluded unless another depredation is confirmed.

On 4/2, a WS f/w aircrew was able to shoot and kill a large, gray wolf near the Ellis depredation site where a calf was confirmed to have been killed by a wolf the week before. Control efforts are concluded unless another depredation is confirmed.

On 4/3, WS confirmed that a wolf from the High Prairie pack killed a calf on private land north of Mountain Home. On 4/10, WS confirmed that the High Prairie wolves killed another calf on a neighboring private ranch. Control efforts to halt the depredations are ongoing.

On 4/3, WS confirmed that a single wolf killed a heifer on a private ranch near Leadore. Control efforts to remove the offending animal are ongoing.

On 4/5, WS captured, radio-collared and released a sub-adult, gray female wolf from the Double Springs pack at a private ranch in the Pahsimeroi. These wolves have been seen in the cattle several times this year.

On 4/6, WS investigated a report that wolves killed a newborn calf on private land near Clearwater. WS determined that the calf's death was not predator related.

On 4/9, a WS employee was performing non-wolf related duties at a private ranch near Cambridge when he spotted a pair of wolves in a group of cattle. The WS employee shot one of the wolves, an adult, gray female. While investigating, he found a freshly killed calf carcass that he confirmed as a wolf depredation. Control efforts are concluded unless another depredation is confirmed.

Wolves injured 2 dogs in the Ashton area that were later euthanized. Officers responded and investigated. We take this opportunity to offer our sympathy for the owners who lost valued pets. We also would like to remind people that when wolves are in the area, please be aware that they may attack or injure dogs. It often helps to keep dogs in kennels or inside buildings at night and to not let them roam freely when humans are not around. When fresh wolf sign is found, place dogs on restraints and keep supervised. The state law allows individuals to harass or kill a wolf attacking or molesting their domestic animals including pets. If you are having concerns or problems with wolves close to your residence, please inform the Fish and Game Office nearest you.

Management

Fish and Game wolf managers and specialists met on April 1 to review statewide wolf population management, wolf harvest rules and allocations. The following schedule is designed for wolf rule setting.

April 1	Statewide coordination meeting of management plan team
April 14	Regional recommendations (biological & nonbiological) due to bureau (standardized format will be provided)
April 21	Statewide recommendations sent to regions and available on website for public review
April 21 – May 16	Public review and input
May 16	Summaries of regional public input, and final regional recommendations due to bureau
May 21-23	Commission meeting, Twin Falls
June 18	Brochure ready for final review
July	Brochure distributed

Idaho Fish and Game conservation officers are investigating the shooting of two wolves on April 1 by a private landowner west of Ashton. He contacted the local conservation officer shortly after the incident, which still is under investigation.

Information and Education

Curt Mack and Jim Holyan attended the North American Wolf Conference at Chico Hotsprings Resort near Pray, MT from 4/8-10/08. They were among the co-authors, also including IDFG and Montana FWP, on a presentation given by Dave Ausband (Univ. of MT Cooperative Wildlife Research Unit) entitled "Tracking Wolves Post Delisting. Mack and Ausband sought additional funding for this research through contacts with organizations/individuals also in attendance at the conference.

On 4/9, ID WS Wolf Specialist Rick Williamson received the "Alpha Award" at the 20th Annual North American Wolf Conference at Chico Hot Springs, MT for his continuous hard work to enable wolves and people to coexist. The conference was sponsored by the Defenders of Wildlife, the Wolf Recovery Foundation and the National Park Service. Although IDFG was not in attendance at the conference, we would like to extend our sincere thanks to Rick for an excellent and professional job of wolf management over the years. Thanks Rick!

EXHIBIT 3

Idaho Wolf Management Progress Report
April 13 - April 26, 2008

EXHIBIT 3

Idaho Wolf Management Progress Report April 13 - April 26, 2008

Wolves in the Northern Rocky Mountains (NRM) were delisted on March 28, 2008. The U.S. Fish and Wildlife Service (USFWS) successfully recovered and delisted the population with the help of state, federal, tribal and non government partners. Management of these wolves now resides with the states of Idaho, Montana, and Wyoming. The 2002 legislatively approved Wolf Conservation and Management Plan along with the March 2008 Idaho Fish and Game Wolf Population Management Plan, as well as the laws and policies of the state now govern wolf management in Idaho. Wolves are now listed as a big game animal in Idaho and protected under the laws and policies of the State of Idaho.

Once wolves were delisted, the USFWS decided to discontinue the publication of the NRM wolf weekly. Instead, for the time being, Idaho will continue publishing the Idaho specific wolf weekly. Along with the USFWS, contributors to the weekly historically have included the USDA APHIS Wildlife Services, the Nez Perce Tribe, and the states of Idaho and Montana. Wyoming was reported on by the USFWS. You may review past wolf weekly publications on our wolf webpage and links along with all pertinent and updated wolf information and publications at: <http://fishandgame.idaho.gov/cms/wildlife/wolves/>.

Monitoring

Deep and lingering snows are keeping wolves in lower elevations mostly along winter range later than usual this year, providing more opportunity for wolves to be in close proximity to cattle calving operations around private ground.

Michael Lucid flew on April 18 and located the possible den of a potential new pack radio collared last winter in the Lowman area. Most other wolf dens have not yet been pinned down and wolves are still close to winter range.

Michael Lucid and Laura Robinson are working in the Selway-Bitterroot Wilderness attempting to radio collar wolves for monitoring purposes. Snow and ice are still along the trails normally open this time of year. A pack bridge is out also restricting horse access from Moose Creek upriver. They will be trapping on foot for the next few weeks.

Control

On 4/13, Wildlife Services (WS) confirmed that a wolf came into a barn yard and fought with a pair of dogs (1 guard dog and one stock dog). Both dogs were injured, but the injuries were not considered "life threatening." The incident occurred on private land south of Riggins.

On 4/16, WS confirmed that wolves killed a calf on private land near Leadore. This depredation was on a neighboring property to the site where WS confirmed another wolf depredation on cattle last week. Control efforts to stop the depredation activity continue.

On 4/20, WS confirmed that wolves killed a calf on private land near Council. This ranch is about 1 1/2 miles SW from the property where another confirmed wolf depredation took place earlier this month. Efforts to stop the depredation activity are ongoing.

On, 4/21, WS shot and killed a large, black wolf from a f/w aircraft near Leadore where several depredations on cattle have been confirmed in the last two weeks. WS confirmed that wolves killed another calf on BLM adjacent to the ranch on 4/23. Control efforts to stop the depredations are continuing.

On 4/21, WS confirmed that five wolves killed a calf on private land near Lemhi. This is the same ranch where WS removed three wolves earlier this month after wolves killed two calves. On 4/25, WS removed another wolf with a fixed wing aircraft. Control efforts to resolve the situation are ongoing.

On 4/23, WS confirmed that wolves from the Double Springs pack killed a calf on private land in the upper end of the Pahsimeroi. On 4/24, WS investigated a report that the pack had killed another calf in the area, but evidence at the site suggested the calf had been stillborn and had been fed on by coyotes. Efforts to stop further depredations are underway.

On 4/24, WS confirmed that a pair of wolves (likely from the Applejack pack) killed 1 ewe on private land near Horseshoe Bend. The herder shot the wolf among his sheep and Idaho Fish and Game officers investigated and confirmed that the kill was legal under state law (or under the old federal 10j law). The second wolf remained in the area and killed a second sheep the next morning and although nonlethally harassed by the landowner, would not leave the area. A shoot on site permit for one wolf has been issued to the producer. Fish and Game and Wildlife Services are reviewing other potential nonlethal actions to assist in this area.

Management

CO Eric Crawford responded to a call of a dead wolf near Squaw Creek, and was able to find and retrieve the carcass of B277. A person apparently reported to the Sheriff in Challis of hitting the wolf as it crossed the road in pursuit of elk the night before (4/22). This wolf was originally captured and handled as a member of the Galena pack by Carter Niemeyer and B. Reeves in May '06. The collar was still functioning, but the frequency had drifted up above what had been bracketed. The pelt is still in good condition, so it will be sold at the Fish and Game fur auction.

A proactive nonlethal project is being developed between 3 sheep producers in the Sun Valley area, Wildlife Services, Defenders of Wildlife, Blain County Commissioners, US Forest Service, and Idaho Fish and Game. The effort to reduce conflict between wolves and sheep will include a cooperative agreement between entities sharing knowledge, funding, and manpower and hiring personnel to assist in nonlethal control in the area. Researchers from USDA Wildlife Services are attempting to establish a scientific approach to learning from this application. Fish and Game will be cooperating by assisting in training, oversight, coordination, and equipment sharing. Pending results of this and other ongoing projects and future funding, Fish and Game may expand nonlethal programs across the state as part of normal wolf management activities.

Many reporters have been asking for the total wolf mortality numbers since delisting and whether the number is higher under state management than under federal management. We have been seeing an annual increase in depredations and resultant wolf control actions every year since reintroductions under federal authority correlated to higher wolf populations and wolves establishing activity on private land with high conflict potential.

Year	April Confirmed Depredations	Wolves Controlled
2005	1	0
2006	3	0
2007	6	4
2008	14	9

This year winter conditions are keeping wolves at lower elevations during peak cattle calving and lambing seasons as well. All but one depredation report received has occurred on private land at low elevations. Many are occurring in areas we have not historically had high levels of depredations including Council/Cambridge area, Horseshoe Bend, Lemhi, Pahsimeroi, Ashton, Mt. Home and other locations on private ground far from core wolf areas. From March 28 – April 24 we have recorded 17 mortalities: nine lethal controls authorized for confirmed livestock depredations, two illegal takes, three control under the state law 36-1107, two vehicle collisions, and one natural mortality.

Fish and Game and Tribal biologists met on April 18, 21, and 22 to review wolf harvest allocation issues.

The following schedule is designed for wolf rule setting.

April 28	Statewide recommendations sent to regions
April 30/May 16	Public review and input
May 16	Summaries of regional public input, and final regional recommendations due to bureau
May 21-23	Commission meeting, Twin Falls
June 18	Brochure ready for final review
July	Brochure distributed

Information and Education

Regan Berkley gave a presentation on wolf delisting and state management to 20 retired Forest Service Employees on April 7 in Twin Falls.

Martha Wackenhut gave a presentation on wolf conservation and management to 30 elementary and high school teachers at a Project Wild Workshop in Pocatello April 19.

We also would like to remind people that when wolves are in the area, please be aware that they may attack or injure dogs. It often helps to keep dogs in kennels or inside buildings at night and to not let them roam freely when humans are not around. When fresh wolf sign is found, place dogs on restraints and keep supervised. The state law allows individuals to harass or kill a wolf attacking or molesting their domestic animals including pets. If you are

having concerns or problems with wolves close to your residence, please inform the Fish and Game Office nearest you.

Please help us manage wolves by reporting wolf sightings on our Fish and Game observation form found at: http://fishandgame.idaho.gov/apps/wolf_report/.

EXHIBIT 4

Idaho Wolf Management Progress Report
April 27 - May 2, 2008

EXHIBIT 4

Idaho Wolf Management Progress Report

April 27 – May 2, 2008

Monitoring

Early spring conditions continue keeping wolves in lower elevations mostly along winter range later than usual this year, providing more opportunity for wolves to be in close proximity to cattle calving operations around private ground.

Jason Husseman, Idaho Fish and Game biologist, retrieved a chewed off radio collar from a female wolf in the East Fork of the Salmon River. This is her second radio collar she had chewed off and Jason figures that unless he finds radio collar armor plating, he likely won't place another.

Michael Lucid and Laura Robinson are still working in the Selway-Bitterroot Wilderness attempting to radio collar wolves for monitoring purposes. Snow and ice are still along the trails normally open this time of year. A pack bridge is out also restricting horse access from Moose Creek upriver. Once again, the wilderness wolves are avoiding their traps, as none have yet been collared.

Control

On 4/27, USDA Wildlife Services (WS) confirmed that a wolf killed a ewe and a lamb on private land SE of Midvale. Control efforts to remove the offending animal are ongoing.

On 4/29, WS captured and killed a sub adult gray female wolf near the depredation site where wolves killed 2 sheep on private land near Horseshoe Bend last week. Control efforts are complete unless another depredation is confirmed.

On 5/1, a WS fixed wing aircrew was able to remove two gray female wolves (1 adult, 1 sub-adult) from the Double Springs pack near the depredation site where they killed a calf last week on private land in the Pahsimeroi. Control efforts are complete unless another depredation is confirmed.

On 5/1, WS investigated a reported wolf depredation on a calf on private land near Kooskia. While wolves had fed on the carcass, there was no indication that the calf was a victim of predation.

Management

Carter Niemeyer (IDFG) talked to several Lowman residents about wolves near their homes, how to reduce conflict, and what the new state law allows. Carter trained the individuals in the use of nonlethal munitions (rubber bullets and cracker shells), and discussed other nonlethal options as well as when lethal control could be used. Evidently the community has been feeding deer and the wolves have been hanging close by as a result.

Many reporters have been asking for the total wolf mortality numbers since delisting and whether the number is higher under state management than under federal management. We have been seeing an annual increase in depredations and resultant wolf control actions every

year since reintroductions under federal authority correlated to higher wolf populations and wolves establishing activity on private land with high conflict potential. Following are the final tally for April wolf depredations and control actions.

Year	April Confirmed Depredations	Wolves Controlled
2005	1	0
2006	3	0
2007	6	4
2008	15	10

This year early spring conditions are keeping wolves at lower elevations during peak cattle calving and lambing seasons as well. All but one depredation report received has occurred on private land at low elevations. Many are occurring in areas we have not historically had high levels of depredations including Council/Cambridge area, Horseshoe Bend, Lemhi, Pahsimeroi, Ashton, Mt. Home and other locations on private ground far from core wolf areas. From March 28 – April 30 we have recorded 20 mortalities: 12 lethal controls by USDA Wildlife Services for confirmed livestock depredations, 2 illegal takes, 3 control under the state law §36-1107 by livestock producers, 2 vehicle collisions, and 1 natural mortality. Two of the above wolves were killed by a livestock owner near Ashton, Idaho under §36-1107, after the owner saw the wolves stalking his livestock. The incident was investigated by IDFG conservation officers and a report filed with the local prosecutor, who determined that no charges should be filed against the livestock owner.

The Idaho Department of Fish and Game has scheduled a series of public open house meetings around the state to seek comments on the proposed 2008 wolf hunting season framework. The meetings will be announced by regional offices. The proposed seasons and rules are available at all Fish and Game offices and on the Fish and Game Website at: <http://fishandgame.idaho.gov/cms/public/>.

The Idaho Fish and Game Commission approved the Idaho Wolf Population Management Plan, and the gray wolf in the Northern Rocky Mountains was removed from the endangered species list – both in March. The plan calls for managing wolves at a population level of between 500-700 wolves for the first five years following delisting. The plan includes hunting as part of the methods of maintaining the population levels.

Fish and Game recommendations call for a total mortality quota of 328 wolves in 2008, which includes all reported wolf kills – from natural causes, accidents, wolf predation control actions and hunter kills. Reaching the quota would result in an estimated end-of-year population of 550-600 wolves. When the statewide quota is reached, all hunting would stop. When quotas in individual zones are reached, hunting in those zones would stop.

Details for the fall 2008 hunting season are scheduled to be set by the commission at the May 21-22 meeting and season and rules brochures should be out to the public in July.

Fish and Game has set this schedule for wolf rule setting:

- April 30 – May 16 - Public review and comment period.
- May 16 - Summaries of regional public comments and final regional recommendations are due to Fish and Game headquarters.

- May 21-22 - Idaho Fish and Game Commission scheduled to consider wolf hunting rules and seasons during meeting at Jerome Fish and Game office.

Comments on the proposed seasons and rules may be submitted at regional public meetings or to regional offices; they may be submitted at the Fish and Game Website at:

<http://fishandgame.idaho.gov/cms/public/>; or they may be sent by mail to Wolf Hunting Rules, Idaho Fish and Game, P.O. Box 25, Boise, ID 83709.

On April 28, a lawsuit was filed in Federal Court in Missoula to prevent delisting. The state of Idaho is planning on intervening on behalf of the US Fish and Wildlife Service.

Information and Education

On 4/19/08, Marcie Carter (NPT reservation biologist and former wolf project member) gave a wolf biology/ecology talk at the Earth Day Fair sponsored by the Coeur d'Alene Tribe. Approximately 20 people attended her presentation.

Dave Spicer (IDFG) gave a wolf question and answer session at "Earth Day Fair" in Coeur d'Alene on Saturday, April 19th, 25 to 30 people attended.

Carter Niemeyer (IDFG) gave presentations to three high school zoology and biology classes at Valley High School in Nampa on April 29. He presented information on careers in wildlife management with emphasis on wolf biology, ecology and management. About 60 students attended with good participation and questions.

We also would like to remind people that when wolves are in the area, please be aware that they may attack or injure dogs. It often helps to keep dogs in kennels or inside buildings at night and to not let them roam freely when humans are not around. When fresh wolf sign is found, place dogs on restraints and keep supervised. The state law allows individuals to harass or kill a wolf attacking or molesting their domestic animals including pets. If you are having concerns or problems with wolves close to your residence, please inform the Fish and Game Office nearest you.

Please help us manage wolves by reporting wolf sightings on our Fish and Game observation form found at: http://fishandgame.idaho.gov/apps/wolf_report/

Wolves in the Northern Rocky Mountains (NRM) were delisted on March 28, 2008. The U.S. Fish and Wildlife Service successfully recovered and delisted the population with the help of state, federal, tribal and non government partners. Management of these wolves now resides with the states of Idaho, Montana, and Wyoming. The 2002 legislatively approved Wolf Conservation and Management Plan along with the March 2008 Idaho Fish and Game Wolf Population Management Plan, as well as the laws and policies of the state now govern wolf management in Idaho. Wolves are now listed as a big game animal in Idaho and protected under the laws and policies of the State of Idaho.

Once wolves were delisted, the USFWS decided to discontinue the publication of the NRM wolf weekly. Instead, for the time being, Idaho will continue publishing the Idaho specific wolf weekly. Along with the USFWS, contributors to the weekly historically have included the USDA APHIS Wildlife Services, the Nez Perce Tribe, and the states of Idaho and Montana. Wyoming was reported on by the USFWS. You may review past wolf weekly publications on our wolf webpage and links along with all pertinent and updated wolf information and publications at:

<http://fishandgame.idaho.gov/cms/wildlife/wolves/>

EXHIBIT 5

Idaho Wolf Management Progress Report
May 4 - May 18, 2008

EXHIBIT 5

Idaho Wolf Update May 4 - 18, 2008

Monitoring

Wolves apparently denned lower than normal this year and are closer to cattle operations across the state. They are showing up in areas never seen before such as the Camas Prairie near Ferdinand in open wheat fields. Snow conditions in north Idaho and mid elevations are still early spring-like and game is just beginning to move higher.

Michael Lucid and Laura Robinson returned to the wilderness attempting to radio collar wolves after a few days off. Snow and ice are starting to leave and green up has finally arrived as the weather warms up and elk and deer begin to move up in elevation. Wolves are using the trails and a few winter kills were seen. They captured an adult male mountain lion while trapping for wolves in the Selway. They placed a radio collar on it and it will be tracked along with other telemetry flights in the area.

Jason Husseman flew telemetry and located a few den sites including Moyer Basin, Aparejo, Pass ck., Galena, Bear Valley and Basin Butte. Pup counts will begin starting this week. Jason also worked the Moyer Basin pack on Saturday and verified reproduction.

Nez Perce Tribal crews trapped a one- to two-year-old female from the Stolle Meadows pack and fitted it with a GPS collar for Dave Ausband's research.

Control

On 5/5, USDS Wildlife Services (WS) confirmed that wolves killed a calf on private land near White Bird. Control efforts are underway to stop further depredation activity.

On 5/6, WS responded to a report that wolves killed a calf on private land near Gardena. WS determined that the incident was a "probable" wolf depredation. The rancher shot a wolf near his cattle and reported it to Fish and Game. Law enforcement is investigating.

On 5/6, a WS aircrew was able to remove an adult gray male wolf after several depredations on cattle over the past several weeks on private land near Leadore.

On 5/7, WS confirmed that wolves from the Pass Creek killed an 800-pound calf on private land near Jimmy Smith Lake. Control efforts are underway to stop further depredation activity.

On 5/13, WS confirmed that wolves killed another calf on BLM land near Leadore. Control efforts are ongoing to get the depredations under control.

On 5/14, WS looked at another calf carcass at the same ranch near Gardena where a rancher shot a wolf last week. While there was not enough evidence to confirm, WS did determine that it was a probable wolf depredation.

On 5/14, WS confirmed that wolves attacked and injured a Great Pyrenees dog on private land near Mullen. Efforts to radio collar a wolf are ongoing. The dog owner legally shot the wolf while it was attacking the dog in his yard.

On 5/14, WS confirmed that wolves killed a calf on private land north of Grangeville on the prairie. Control efforts to resolve the problem including placing a radio collar in the pack and attempting nonlethal harassment have begun.

On 5/15, WS investigated a report that wolves killed a calf on private land near Mackay Reservoir. WS was able to determine that the calf was not killed by a predator, but it had been fed on by coyotes.

On 5/16, WS confirmed that wolves from the Pass Creek pack killed two calves on private land along the East Fork of the Salmon River. Nonlethal efforts are ongoing by attempting to haze the pack to move the den site away from the private land calving area. WS and Fish and Game are also attempting to find alternative grazing options for the producer to reduce continued depredations. Lethal control efforts are ongoing from a previous depredation in the area.

On 5/17, WS investigated a report that wolves killed a calf on private land near Council. Despite the producer's insistence that wolves had killed the calf, all evidence at the site showed that coyotes were the responsible predator.

On 5/18, WS confirmed that wolves killed 13 sheep on BLM land between Bliss and Hill City. Control efforts to resolve the problem have begun including placing a radio collar in the new pack.

Management

Wolves injured a dog and were attacking two others in a backyard in the Mullen area of North Idaho, and the dog owner killed one of the wolves while it had the Great Pyrenees down. All dogs survived.

An 80-pound female black wolf was found road killed by collision on Highway 75 north of Ketchum over the weekend. It is believed to be a yearling from the Phantom Hill pack.

On 5/15 a young male wolf was found dead near Lowman airstrip where wolves have been feeding on deer that have been attracted to housing areas by winter feeding. It is under investigation.

A wolf was killed attacking livestock near Red River over the weekend. It is under investigation.

A wolf radio collar is on mortality in the Selway wilderness (Selway pack). Biologists will attempt to find the cause of the mortality signal (dropped collar or mortality).

This year's lingering spring conditions are keeping wolves at lower elevations during peak cattle calving and lambing seasons. All but one depredation report received has occurred on private land at low elevations. Many are occurring in areas we have not historically had high levels of depredations including Council/Cambridge area, Horseshoe Bend, Lemhi, Pahsimeroi, Camas Prairie north of Grangeville, Ashton, Mountain Home and other locations on private ground far from core wolf areas. Wolves are denning at lower elevations as well. All this bodes for higher than usual conflicts.

On April 28, a lawsuit was filed in Federal Court in Missoula to prevent delisting. The states of Idaho, Montana, and Wyoming along with several other groups were granted intervener status on behalf of the US Fish and Wildlife Service. The injunction hearing will be held in federal court in Missoula MT on May 29, 2008.

Information and Education

The Idaho Department of Fish and Game held a series of public open house meetings around the state to seek comments on the proposed 2008 wolf hunting season framework. The meetings were lightly attended. More than 1,000 emails and public comments were received online.

The Idaho Fish and Game Commission will meet from 7 to 9 p.m. May 21 to hear public comment at the Jerome Fish and Game office. They will consider the wolf hunting rules at 10:30 a.m. on May 22.

Jason Husseman gave a presentation to 10 people at the "Food for Thought" group in Salmon on May 14.

Jason, Michael Lucid, Carter Niemeyer and Steve Nadeau attended the Ninth Cougar Workshop in Sun Valley May 5-9 and led a wolf tour on May 9 of about 25 people.

Wolf hunting season public open houses were held across the state at various towns over the past two weeks. Attendance was quite low at most open houses. Comments are being tallied for the commission meeting on May 22.

Steve Schmidt, Daryl Meints and Virgil Moore held an open house on the hunting rules but also provided a public forum to discuss recent dog and wolf killings in the Ashton area near Idaho Falls and to discuss the new state law. More than 100 people attended.

We also would like to remind people that when wolves are in the area, please be aware that they may attack or injure dogs. It often helps to keep dogs in kennels or inside buildings at night and to not let them roam freely when humans are not around. When fresh wolf sign is found, place dogs on restraints and keep supervised. The state law allows individuals to harass or kill a wolf attacking or molesting their domestic animals including pets. If you are having concerns or problems with wolves close to your residence, please inform the Fish and Game Office nearest you.

Please help manage wolves by reporting wolf sightings on the Fish and Game observation form at: http://fishandgame.idaho.gov/apps/wolf_report/

Wolves in the Northern Rocky Mountains (NRM) were delisted on March 28, 2008. The U.S. Fish and Wildlife Service successfully recovered and delisted the population with the help of state, federal, tribal and non government partners. Management of these wolves now resides with the states of Idaho, Montana, and Wyoming. The 2002 legislatively approved Wolf Conservation and Management Plan along with the March 2008 Idaho Fish and Game Wolf Population Management Plan, as well as the laws and policies of the state now govern wolf management in Idaho. Wolves are now listed as a big game animal in Idaho and protected under the laws and policies of the State of Idaho.

Once wolves were delisted, the USFWS decided to discontinue the publication of the NRM wolf weekly. Instead, for the time being, Idaho will continue publishing an Idaho-specific wolf update. Along with the USFWS, contributors to the reports historically have included the USDA APHIS Wildlife Services, the Nez Perce Tribe, and the states of Idaho and Montana. Wyoming was reported on by the USFWS. Past wolf publications are available on the Fish and Game wolf webpage and links along with all pertinent and updated wolf information and publications at: <http://fishandgame.idaho.gov/cms/wildlife/wolves/>

EXHIBIT 6

Idaho Wolf Management Progress Report
May 17 - May 30, 2008

EXHIBIT 6

Idaho Wolf Update
May 17 – May 30, 2008

To: Idaho Fish and Game Staff and Cooperators

From: Fish and Game Wolf Program Coordinator, Steve Nadeau

Subject: Status of Gray Wolf Management

When wolves were delisted at the end of March, the U.S. Fish and Wildlife Service decided to discontinue the publication of the Northern Rocky Mountain wolf weekly. Instead, for the time being, Idaho will publish an Idaho specific wolf biweekly, which will be posted on the Website. Along with the USFWS, contributors to these reports have included the USDA APHIS Wildlife Services, the Nez Perce Tribe, and the states of Idaho and Montana. Past wolf weekly publications are available for review on our wolf webpage and links along with all pertinent and updated wolf information and publications at: <http://fishandgame.idaho.gov/cms/wildlife/wolves/>

Monitoring

5/27: Jason Husseman got a pup count of five pups in the Hughes Creek pack.

Nez Perce Tribe crews have traps out in the Scott Valley area, where the Orphan pack was last known to reside, based on sign located there this week.

Isaac Babcock obtained a partial pup count on the Stolle Meadows pack; while tracking the radio-collared alpha female, B249, he happened across a secondary den. Inside he observed two black pups, but there are likely at least another one or two.

Isaac and Bjornen Babcock obtained a visual on GPS radio-collared male B327 in the Scott Valley area; he appeared to be alone (as he was during an aerial observation 5/25/08). This crew investigated the past two aerial locations of female wolf B290 (originally a member of the Morgan Creek pack); a den is highly suspected due to the site fidelity being exhibited by this wolf, but no direct evidence of reproduction has been obtained thus far. They also documented a new pack, containing radio-collared female B315, on the breaks of the Snake River; B315 and an uncollared wolf were observed away from the den/rendezvous site and one adult and multiple pups were heard howling. This pack will be named soon.

Holyan conducted additional scouting in the Boulder Creek drainage southeast of McCall following up on reports from Idaho Department of Lands personnel that made a sighting in the area. Holyan had verified wolf sign here in February/March. Flights were conducted on 5/25 and 5/26. Female B192, originally captured as a pup in the Soldier Mountain pack (born in 2003), was aerielly observed north of McCall with another wolf. B192 had been missing from her natal territory since June 2007, although she was identified via DNA from a scat collected in the Bear Valley pack's territory during July 2007.

Control

Wildlife Services (WS) has investigated 57 reported wolf depredations so far in 2008 (they conducted 36 investigations by this date in 2007). WS confirmed 35 depredations compared to 22 during the same time frame in 2007. Therefore investigations have increased 58 percent this year over last, and confirmed livestock kills have increased 59 percent as well.

From January 1 to May 25, Idaho Fish and Game has recorded 45 dead wolves. Twenty-two were control actions due to livestock depredations, five were killed by producers under state law 36-1107, one was killed by a producer under the federal 10j rule, two died of natural causes, three from vehicle collisions, seven unknowns, and five illegal kills. Wolves continue to remain in lower elevations and on private lands due to late spring conditions during denning season thus making them more vulnerable to livestock depredations and other forms of mortality. Also, because of increased wolf populations expanding into suboptimal habitat and high conflict areas higher levels of mortality can be expected.

On 5/19, WS captured and radio collared a gray, sub-adult male wolf at the depredation site near Hill City where unknown wolves killed 18 sheep the weekend before.

On 5/20, WS confirmed another calf killed by the Pass Creek pack on private land along the East Fork of the Salmon River. So far, this pack has killed four calves in the past three weeks; all on private land.

On 5/23, WS confirmed that a wolf killed a calf on private land southeast of Grangeville. This property neighbors the property where WS confirmed another wolf depredation earlier this spring. Control efforts are ongoing.

On 5/25, WS confirmed that wolves killed two buck sheep and probably killed 13 more on private land about 10 miles north of Carey, east of the Little Wood Reservoir. Several more sheep are missing. A neighbor saw three wolves running from the property. Control efforts are underway.

On 5/27, WS confirmed that wolves killed another six sheep on the Boise National Forest adjacent to this property. Control efforts are ongoing.

On 5/29 WS looked at a calf on private land near Leadore that was reported as a wolf depredation. There was no evidence that wolves were involved at all.

On 5/29, WS confirmed that wolves killed 33 sheep (nine ewes, 24 lambs) near Alexander Flat on the Boise National Forest. Control efforts are underway.

On 5/29 Husseman and WS visited the Pass Creek suspected den area in a control effort that involves attempting to bump wolves from their den site that will soon have

cattle on it, but backed off when the conditions were not right; further attempts will be made to try to move the wolves before the cattle gets put on the range.

On 5/29 the suspected breeding female of the Pass Creek pack was trapped at the depredation site on the East Fork Salmon River and euthanized. Though WS attempted to avoid lethal removal of the female, her leg opposite the trap was broken and she could not have been released and expected to survive. The pups appear to be weaned so proactive efforts to have the remaining wolves move the pups away from the private land cattle operation are ongoing.

Management

A wolf radio collar was found on mortality in the Selway wilderness (Selway pack) during a routine Nez Perce Tribe telemetry flight. Michael Lucid (Idaho Fish and Game) found the wolf carcass and it appeared to be a natural death.

On May 22, the Fish and Game Commission voted to approve recommendations for rules for the first wolf hunting season. Additionally, they approved a total mortality limit that would approach the goal of achieving the estimated population level of approximately 518 wolves, or the lower end of the range approved in the March 2008 Wolf Population Management Plan (518-732). This population level assures viable and healthy wolf populations across Idaho, reduced populations in areas where there is high conflict with livestock and ungulates, assure connectivity with Montana, Yellowstone National Park and Wyoming, and establishes the first big game hunting season for wolves in Idaho. Total mortality limits include all forms of reported or verified mortality including road kills, control actions, natural mortality, illegal kills, as well as regulated harvest. At current population levels, more than 200 wolves would be expected to die from all forms of mortality except legal harvest. Once the limit is reached in each wolf zone the hunting season for that zone will be closed. Once the statewide limit is reached, hunting will close across the state. All mortality will be accounted for both by confirmation and estimation using radio collar data. Remaining live wolf populations will be estimated using standard and newly researched techniques that rely on radio collar and GPS data for aerial counting wolves in packs, as well as DNA data, hunter and public reporting, and other techniques. The goal of maintaining wolves at the level approved will assure long-term healthy wolf populations in balance with prey, reduce conflicts and assure that wolves occupy optimal habitat in Idaho. Including hunting as a form of management will improve acceptance of wolves in Idaho and assure that wolves are here to stay.

On April 28, a lawsuit was filed in federal court in Missoula to prevent delisting. The states of Idaho, Montana, and Wyoming along with several other groups were granted intervener status on behalf of the U.S. Fish and Wildlife Service. The injunction hearing was in federal court in Missoula on May 29. Judge Malloy said he would get the ruling out soon.

Information and Education

The Idaho Fish and Game Commission met from 7-9 p.m. May 21 to listen to public comment at their open house at the Jerome Fish and Game office. About 100 people attended and many testified.

Carter Niemeyer gave a wolf walk and presentation to about 20 people at the Idaho Conservation League annual meeting at Red Fish Lake on May 17.

Wolves are being reported in Placerville and Lowman areas around residences. Information is being distributed to reduce conflicts.

We also would like to remind people that when wolves are in the area, please be aware that they may attack or injure dogs. It often helps to keep dogs in kennels or inside buildings at night and to not let them roam freely when humans are not around. When fresh wolf sign is found, place dogs on restraints and keep supervised. The state law allows individuals to harass or kill a wolf attacking or molesting their domestic animals including pets. If you are having concerns or problems with wolves close to your residence, please inform the Fish and Game Office nearest you.

Please help us manage wolves by reporting wolf sightings on our Fish and Game observation form found at: http://fishandgame.idaho.gov/apps/wolf_report/

Wolves in the Northern Rocky Mountains (NRM) were delisted on March 28, 2008. The USFWS successfully recovered and delisted the population with the help of state, federal, tribal and non government partners. Management of these wolves now resides with the states of Idaho, Montana, and Wyoming. The 2002 legislatively approved Wolf Conservation and Management Plan along with the March 2008 Idaho Fish and Game Wolf Population Management Plan, as well as the laws and policies of the state now govern wolf management in Idaho. Wolves are now listed as a big game animal in Idaho and protected under the laws and policies of the State of Idaho.

EXHIBIT 7

Idaho Wolf Management Progress Report
May 31 - June 14, 2008

EXHIBIT 7

Idaho Wolf Update

May 31 – June 14, 2008

Monitoring

Isaac Babcock (Nez Perce Tribe) verified a minimum of six gray pups with the B315 group, making them a newly documented pack (Snake River pack). He also has recorded three pups (two black, one gray) with the B290 group (newly documented Hornet Creek pack). Finally, Blue Bunch pack has a minimum of four gray pups.

Jim Holyan (Nez Perce Tribe) observed B327 (GPS radiocollared wolf occupying the “former” Orphan pack home range) alone on June 5; every sighting of this individual he has been alone, despite one aerial this past winter. Holyan also saw female B249 (Stolle Meadows pack) and was barked/howled at for about 10 minutes, but no evidence of other wolves was detected in the area.

Jason Husseman was able to get two new collars in the Hoodoo pack this week, a yearling black male and an adult (2 to 3?) black male. He also confirmed reproduction based on howling (two-plus) and observation of a lactating female.

Carter Niemeyer caught a subadult male, gray wolf along the Grandjean road yesterday. It was traveling with at least two other wolves and, from looking at Argos data from the area, appears it's a different pack than Warm Springs. Niemeyer named it Wapiti.

On June 8, Michael Lucid verified multiple pups in the Steel Mountain pack. On June 9, Lucid attempted to verify reproduction in the Thorn Creek pack. On June 12, Lucid verified two gray pups in the Applejack pack.

Idaho Fish and Game elk researchers trapped a 2-year-old female wolf May 31 and fitted her with a vhf radio collar. She was captured near Fourth of July Creek on the North Fork of the Clearwater. They are not sure which pack she belongs to but will determine such based on future locations.

An employee of the U.S. Forest Service photographed and verified six pups in the Kilgore area of eastern Idaho. These are likely members of the Bishop Mountain pack but further work will be needed to verify their affiliation.

Also, one quick amusing story from Husseman: “I was woken up Tuesday about midnight to a noise right outside my tent, which I immediately dismissed as a rodent, and tried to go back to sleep. However, about a minute later I heard the sound of plastic crunching as something was picking up one of the 2.5 gallon water jugs just outside my tent door. I immediately thought “bear,” and clapped my hands and yelled to run it off. I waited a bit to see what would happen, and shortly after I heard the plastic jug crunching about 20 yards above my tent. I reluctantly decided to brave the cold rain coming down and run this critter off, so I

put my headlamp on and got out to go to my truck for a bigger flashlight. One quick glance up hill in my headlamp on the way to the truck revealed two green-yellow glowing eyes attached to a prone black form. I got the flashlight and walked towards the glowing eyes, and as I got to 20 yards or so could make out the shape of a youngish looking black wolf. He laid there until I started yelling, then finally got up and walked slowly up the hill. I eventually got him chased off, and then went to retrieve my water jug, which turns out was the nearly full one. Also, in addition to taking my water, I found my catch pole laying there, which apparently was the source of the first noise that initially woke me up and another item this wolf apparently was interested in. The jug was pretty well chewed up in the short time my visitor was there, and I now have a nice memento with perfect canine bite impressions to remember him by.”

Editor’s Note: *Wolves can usually be easily scared away from camps day or night by yelling, banging pots, using noise makers, pepper spray etc., but similar to all carnivores they may be attracted to camps by the smell of foods, meat hanging, scents around camp, dogs, etc. They may also be using the area you are visiting as a rendezvous site. To avoid conflicts with wolves, bears, and other wildlife, please keep a clean camp and store food in a hard sided vehicle or hang between two trees 10 feet off the ground, or use bear resistant containers. Please report any incident to the nearest Fish and Game office or online at: http://fishandgame.idaho.gov/apps/wolf_report/*

Control

On June 2, U.S.D.A. APHIS Wildlife Services (WS) confirmed that wolves killed 18 sheep, all lambs, and injured a number of others, on private land north of Carey. This property neighbors the ranch where WS confirmed two buck sheep and counted 13 more “probable” depredations the week before.

On June 3, WS confirmed that wolves from the Pass Creek pack killed a calf on Salmon-Challis National Forest land along the East Fork of the Salmon River. WS found another carcass that was consumed to the point where only a “probable” wolf depredation could be determined. The producer is missing eight more calves. To date, WS has confirmed that the Pass Creek wolves have killed five calves and probably killed one calf this spring.

On June 3, WS investigated a report that wolves had killed a calf on private land near Howe. WS determined that the calf died of causes other than predation.

On June 3, WS investigated a report that wolves had injured a calf on private land near Orifino. WS determined that the calf had probably been attacked by coyotes.

On June 4, WS confirmed that a wolf killed a sheep on private land on Hunter Creek. WS captured and killed a sub-adult, gray, female wolf about a half mile from the depredation site.

On June 5, a WS fixed-wing aircrew was able to shoot and kill two wolves (one sub-adult gray female and one adult gray male) on the same private ranch where we confirmed two bucks and had 13 more that were probable wolf kills a week earlier.

On June 6, WS confirmed that wolves killed a 700 pound calf on the same private ranch where we had multiple confirmed wolf depredations last year. On June 11, WS confirmed that a wolf killed another calf on the same ranch. The only wolf in the area appears to be B-327.

On June 6, WS captured and killed an adult, gray male wolf near the depredation site where WS confirmed 33 sheep killed a week earlier near Alexander Flats in the Boise National Forest.

On June 7, WS investigated a report that wolves had killed a calf on private land along the Weiser River near Midvale. WS could not determine a cause of death.

On June 8, WS investigated a report that wolves killed several sheep on private land near Carey. WS determined that a bear was responsible for the depredation.

On June 10, WS confirmed that wolves killed two calves on private land north of Carey. While it is not the same property, it is the same general area where WS has confirmed two different depredations on sheep and has removed two wolves earlier this spring.

On June 12, WS confirmed that a wolf killed a ewe on state land in Fourth of July Creek just north of Obsidian. This is in the Galena Pack's territory. Traps are being set today.

On June 13, WS confirmed that a wolf killed a lamb on BLM land at the upper end of the Pahsimeroi River. A WS aircrew found five animals from the Double Springs pack approximately two miles from the depredation site that morning.

Management

No word yet about the injunction hearing on wolf delisting May 28 in federal court in Missoula.

Information and Education

June 6, Michael Lucid gave a presentation on wolf ecology and local packs to 50 people at a Community Update meeting sponsored by the USFS Lowman Ranger District in Lowman.

June 10, Lucid gave a presentation on wolf ecology to 20 members of a Current Issues in Agriculture class at the Treasure Valley Community College in Ontario, Ore.

We also would like to remind people that when wolves are in the area, please be aware that they may attack or injure dogs. It often helps to keep dogs in kennels or inside buildings at night and to not let them roam freely when humans are not around. When fresh wolf sign is found, place dogs on restraints and keep supervised. The state law allows individuals to harass or kill a wolf attacking or molesting their domestic animals including pets. If you are having concerns or problems with wolves close to your residence, please inform the Fish and Game Office nearest you.

Please help us manage wolves by reporting wolf sightings on our Fish and Game observation form found at:

http://fishandgame.idaho.gov/apps/wolf_report/

Wolves in the Northern Rocky Mountains (NRM) were delisted on March 28, 2008. The U.S. Fish and Wildlife Service successfully recovered and delisted the population with the help of state, federal, tribal and non government partners. Management of these wolves now resides with the states of Idaho, Montana, and Wyoming. The 2002 legislatively approved Wolf Conservation and Management Plan along with the March 2008 Idaho Fish and Game Wolf Population Management Plan, as well as the laws and policies of the state now govern wolf management in Idaho. Wolves are now listed as a big game animal in Idaho and protected under the laws and policies of the State of Idaho.

Once wolves were delisted, the USFWS decided to discontinue the publication of the NRM wolf weekly. Instead, for the time being, Idaho will continue publishing the Idaho specific wolf weekly. It is not possible to publish a weekly every Friday, therefore at times we will be publishing a biweekly that will be posted on the website. Along with the USFWS, contributors to the weekly historically have included Wildlife Services, the Nez Perce Tribe, and the states of Idaho and Montana. You may review past wolf weekly publications on our wolf webpage and links along with all pertinent and updated wolf information and publications at: <http://fishandgame.idaho.gov/cms/wildlife/wolves/>

EXHIBIT 8

Idaho Wolf Management Progress Report
June 15 - June 27, 2008

EXHIBIT 8

Idaho Wolf Update

June 15 - 27, 2008

Monitoring

Jason Husseman, Idaho Fish and Game wolf biologist, attempted to trap and collar a wolf in the Jureano Mountain pack in the vicinity of where a field crew from the University of Montana observed six pups. After six nights, he caught and recollared the Jureano Mountain wolf wearing a GPS collar that went belly up last October. He caught him in the exact same spot where he was caught about one year ago. This collar is a store on board collar that will hopefully provide daily locations of the animal for the three to four months it was working. The GPS collar was replaced with a VHF collar.

On June 16, University of Montana research project crewmembers walked in on B385 in Wapiti in the Grandjean area. They stumbled into a set of holes under a fallen tree and were growled at by an adult down in the hole. They were barked at and eventually left the area. Dave Ausband walked in on June 18 and no adults were present. He observed one pup at the den site and after it dove into the hole he gave a little whimper and it came back out and howled for three to five minutes, but no other pups emerged and no adults responded. He then sat on a nearby ridge for three hours, but no other wolves ever showed up.

On June 17, UM researcher Dave Ausband checked out suspected den location for Archie Mt.. The den was under a pile of yarded logs. One to two pups is suspected based on evidence at the site.

On week of June 23, Michael Lucid and Dave Ausband attempted to locate Bear Valley pack unsuccessfully. Michael also attempted to catch a wolf in the Thorn Creek pack.

Carter Niemeyer worked the Timberline pack with Nate Borg and found the wolves near a flock of sheep. They spoke with the herder as best they could and communicated about the wolves. The herder was aware of them, but for the time being these wolves had not depredated. They decided not to trap in the area due to the presence of horses, dogs, sheep and people.

On June 9, Jim Holyan of the Nez Perce Tribe obtained a pup count on the Eldorado Creek pack; he saw four gray pups.

On June 19 Holyan and Kari Holder of the Tribe, observed a minimum four pups (three gray and one black) with the Earthquake Basin pack.

On June 23 Holyan and Holder observed four to five gray pups of the Lick Creek pack.

Efforts to document the pack/reproductive status of the White Bird Creek and Florence packs were unsuccessful.

Control

On June 16, the USDA Wildlife Services (WS) was able to examine one ewe and one lamb that were reported being attacked by wolves. All of the wounds were consistent with wolf bites. The ewe is not expected to survive, the lamb might. This was not a new depredation, but the same depredation where WS confirmed one ewe as a wolf kill a week earlier and attributed to the

Double Springs pack. The producer is also missing another 23 sheep that he believes were victims of wolf depredation.

On June 16, a WS fixed-wing aircrew shot and killed one black wolf from the Double Springs pack on BLM land in the Pahsimeroi.

On June 17, a WS fixed-wing aircrew found two black wolves running with B-379, the only collared animal in the Double Springs pack on BLM land in the Pahsimeroi. The aircrew shot and killed one of the black wolves. Unless there is another depredation, control efforts on the Double Springs wolves are done.

On June 17, WS investigated a report that wolves had killed a calf on private land near Salmon. While there was not enough evidence to confirm the depredation, WS did find enough to call it "probable."

On June 18, WS investigated a report that wolves killed a calf on private land near Grangeville. While there was not enough evidence to confirm the depredation, WS did find enough to call it "probable."

WS also captured and killed a sub-adult, black male wolf from that may have joined the High Prairie pack east of Anderson Ranch Reservoir. Unless there is another depredation, control efforts at this site have concluded.

WS shot and killed one gray wolf that was running with B-378, the only radio collared animal from the Pass Creek pack from a helicopter.

On June 22, WS confirmed that wolves from the Pilot Rock pack killed a Walker hound that was being used to run bears. The depredation occurred on Nez Perce Forest land near Clearwater.

On June 24, WS investigated a report that wolves attacked and injured some sheep on private land west of McCall. WS was able to examine one lamb and was able to determine that it was probably attacked by a wolf. A more thorough examination would be required to confirm a depredation which would involve killing the lamb. Since the lamb appears like it should survive, the examination was not more invasive. This particular band of sheep has seven guard dogs which may explain the minimal injuries.

On June 26, WS confirmed that a wolf had attacked and injured a calf on private land in Bighorse Canyon near Kooskia. The calf is expected to survive.

On June 26, WS investigated a report that wolves had attacked and injured a calf on private land west of Donnelly. No evidence of wolf involvement could be found.

On June 26, WS investigated a report that wolves had killed a calf on a Sawtooth National Forest grazing allotment north of Stanley. WS could not determine a cause of death.

On June 26, WS confirmed that a wolf killed a calf on a private ranch near Stanley. The wolf responsible may be a member of, or disperser from, either the Basin Butte pack or the Galena pack. Signals from radio collared animals from both packs were picked up quite a distance from the kill site.

Management

No word as of yet regarding the injunction court hearing on wolf delisting held May 28 in Missoula.

On June 16 Jason Husseman retrieved the carcass of a wolf shot under the 36-1107 provision Northeast of Stanley; as in all wolf shootings, this incident is being investigated.

On June 24, a 25 pound male and 23 pound female wolf pup were found dead along Highway 21 near Lowman, apparently hit by a vehicle. These pups are believed to be from the Archie Mountain pack.

The collaborative among several producers, Idaho Fish and Game, Wildlife Services, U.S. Forest Service, Blaine County Commissioners, and Defenders of Wildlife is ongoing in the Ketchum area. Nonlethal efforts involving use of fladry, penning at night, hazing with hired trained technicians are ongoing to reduce conflicts between wolves and sheep in the area.

Research

University of Montana research telemetry crew got started on June 2 and began work in the Salmon and Lowman study areas. Their job is to get pack counts, locate uncollared packs and test the howlboxes. To date they have obtained pup counts in Jureano, Hoodoo, Wapiti, and have documented reproduction in Archie as well. They placed howlboxes at three pack homesites in Salmon and the howlboxes only worked properly and ran their entire schedule at 1 site. The howlbox recorded responses at that site.

The scat survey crew began on June 11 and is currently in the McCall area conducting rendezvous site surveys. Some survey work has been hampered by snow at higher elevations. They made some subtle changes to protocol from last year and the results are promising because they collected more samples in the first two days than they did the entire first field stint (nine days) last year.

Information and Education

On June 17, Steve Nadeau gave a wolf management presentation to about 150 members of the Idaho Cattlemen's Association at their annual meeting in Jackpot, Nev.

On June 20, a story on Idaho wolf management was aired on national television on ABC Nightline.

On June 25, Steve Nadeau was interviewed about wolf management by Boise State President Bob Kustra for his radio show.

We also would like to remind people that when wolves are in the area, please be aware that they may attack or injure dogs. It often helps to keep dogs in kennels or inside buildings at night and to not let them roam freely when humans are not around. When fresh wolf sign is found, place dogs on restraints and keep supervised. The state law allows individuals to harass or kill a wolf attacking or molesting their domestic animals including pets. If you are having concerns or problems with wolves close to your residence, please inform the Fish and Game office nearest you.

Please help us manage wolves by reporting wolf sightings on our Fish and Game observation form found at: http://fishandgame.idaho.gov/apps/wolf_report/

Wolves in the Northern Rocky Mountains were removed from the endangered species list on March 28. The U.S. Fish and Wildlife Service successfully recovered and delisted the population with the help of state, federal, tribal and nongovernment partners. Management of these wolves now resides with the states of Idaho, Montana and Wyoming. The 2002 legislatively approved Wolf Conservation and Management Plan along with the March 2008 Idaho Fish and Game Wolf Population Management Plan, as well as the laws and policies of the state now govern wolf management in Idaho. Wolves are now listed as a big game animal in Idaho and protected under the laws and policies of the State of Idaho.

Once wolves were delisted, the USFWS decided to discontinue the publication of the NRM wolf weekly. Instead, for the time being, Idaho will continue publishing the Idaho specific updates. Along with the USFWS, contributors to the weekly historically have included the USDA APHIS Wildlife Services, the Nez Perce Tribe, and the states of Idaho and Montana. Wyoming was reported on by the USFWS. You may review past wolf weekly publications on our wolf webpage and links to wolf information and publications at: <http://fishandgame.idaho.gov/cms/wildlife/wolves/>

EXHIBIT 9

Idaho Wolf Management Progress Report
June 28 - July 11, 2008

EXHIBIT 9

IDAHO WOLF MANAGEMENT PROGRESS REPORT, JUNE 28 – JULY 11, 2008

Monitoring

On July 2, Kari Holder of the Nez Perce Tribe verified reproduction and found a rendezvous site of an additional pack in the Dworshak wolf zone. Holder then conducted outreach with a rancher near Dworshak reservoir where the sole radiocollared wolf died recently.

Isaac Babcock of the Nez Perce Tribe briefly investigated the area near Kamiah where a wolf killed a hound dog; he located some wolf sign, but he did not hear radio-collared wolves so did not make further effort to locate pups at that time. He also surveyed Lolo zone rendezvous sites, only to find that they aren't in use this year, though scattered wolf sign was located. More time will be spent on determining specific pack reproductive status later on. Babcock then trapped and radiocollared an adult male (suspected alpha) and subadult female wolf of a pack in the Lolo zone on July 6. He subsequently located their rendezvous site where he observed eight gray pups.

Jim Holyan of the Nez Perce Tribe surveyed in the Hells Canyon wolf zone following up on a reported pup sighting there; he found no wolf sign. He then obtained a pup count of a pack in unit 14, and also could account for several other wolves. Holyan also searched in the south fork of the Clearwater packs and found evidence that they denned or had early rendezvous site in same area as 2007, but had moved on.

From June 30 through July 3, Jason Husseman verified reproduction in two packs in the Stanley area qualifying both packs as breeding pairs.

July 9 – 11, Husseman hiked in to a historic den/rendezvous site used by a pack in the Sawtooth zone and found evidence that the site was again used this year. However, there was little in the way of fresh sign, and no response to howling, so it's likely the pack had moved to another rendezvous site. Husseman also followed up on a report of wolf activity from the public observation report form in the Yankee Fork of the Salmon River, and confirmed wolf sign (tracks and howling), but could not locate evidence of reproduction. This is probably the uncollared Yankee Fork pack, and further attempts will be made to place a radio collar in this pack.

Carter Niemeyer has been helping researchers collar wolves in the Sawtooth zone. On July 2 they collared a subadult female in the Edna ck country.

On July 4 a University of Montana research crew verified reproduction in a pack in the McCall zone.

On July 5, the UofM research crew verified two den sites that appeared to be used within a single wolf pack territory in the Sawtooth zone. They collected scats to check DNA to determine whether they are the same or different wolves.

On July 6, a Uof M research crew verified reproduction of two more packs in the Sawtooth zone.

Control

On June 28, officials from the U.S. Department of Agriculture's Wildlife Services confirmed that wolves killed a calf on BLM land in the Pahsimeroi. This is the third confirmed depredation by this pack in the past two months. Wildlife Services removed two wolves in this depredation on July 2 and 3.

On June 28, Wildlife Services confirmed that a wolf killed a buck sheep on private land near Thorn Butte on Edna Creek, northwest of Idaho City.

On July 2, Wildlife Services confirmed that a wolf killed a lamb on a Boise National Forest allotment east of Smith's Ferry.

On July 8, Wildlife Services investigated a report that wolves had killed several sheep on a Boise National Forest grazing allotment in Lester Creek, just west of Anderson Ranch Reservoir. The carcasses had deteriorated to the point where WS could only come to a conclusion of "probable" wolf depredation on two sheep.

On July 9, Wildlife Services confirmed that wolves from the Galena pack killed a calf on private property near Obsidian.

On July 9, Wildlife Services confirmed that wolves killed a ewe and six lambs and injured another lamb that will probably succumb to its wounds. No signals from any radio collared wolves could be detected. The depredation occurred between Burgdorf and the Salmon River on the Payette National Forest. On July 11, Wildlife Services trapped and killed an adult, gray male and shot and killed another adult, gray male wolf that was seen chasing a guard dog. Control efforts have concluded unless there is another depredation.

On July 10, Wildlife Services confirmed that a pair of wolves killed a calf on private land on Smith's Prairie near Anderson Ranch Reservoir.

Management

On June 27th, district conservation officer Bill London investigated the killing of a wolf by a sheepherder on June 21 on Thorne Butte in Boise County. The killing was found to be legal under IC 36-1107 as the wolf was attacking the sheep herder's two border collies.

On June 12, Ben Cadwallader investigated a wolf collar on mortality signal near the Lowman transfer station. Closeness to roads and humans made it a possibly illegal kill. Ben found the collar, but could not determine the cause of the drop off except possible technology malfunction. No sign of a wolf was found in the area.

On May 15, Ben Cadwallader investigated an illegally taken wolf in Casner Creek, Lowman. Wolf was shot with a small caliber rifle, either .22-250 or .223). The investigation is ongoing.

On June 20, Fish and Game officer Mark Carson investigated a call along with Rick Williamson of Wildlife Services that a landowner and rancher from Arco had killed a wolf that was in with his cattle on the south side of Timbered Dome. The investigation concluded that the take was legal under 36-1107.

No word as of yet regarding the injunction court hearing on wolf delisting held May 29 in Missoula.

The collaborative effort among several producers, Idaho Fish and Game, Wildlife Services, USFS, Blaine County Commissioners, and Defenders of Wildlife is ongoing in the Ketchum area. Nonlethal efforts involving use of fladry, penning at night, hazing with hired trained technicians are ongoing to reduce conflicts between wolves and sheep in the area. Carter Niemeyer worked with Defender's technicians on July 7 inspecting sheep bands and nonlethal techniques being employed. They found a dead sheep that was being fed on by the sheep dog, but had died from illness.

Research

The University of Montana-Nez Perce Tribe-Idaho Fish and Game wolf monitoring research project (in its second year) is off to a good start again this year. The field season is 40 percent complete and the scat survey crew has already collected three times the numbers (to date, more than 600 samples) of genetic samples as they did all of last summer in the same areas. This represents not a change in population per se, but a change/refinement of the sampling protocol after learning from last year's first field season. The telemetry/howlbox crew continues to obtain data and pup counts (66 percent of study packs have pup counts/breeding pair determination) on packs in the four study areas and also continues to test and refine the howlboxes. Field work will continue through August.

Information and Education

Idaho Fish and Game also would like to remind people that when wolves are in the area, they should be aware that wolves may attack or injure dogs. It often helps to keep dogs in kennels or inside buildings at night and to not let them roam freely when humans are not around. When fresh wolf sign is found, place dogs on restraints and keep supervised. State law allows individuals to harass or kill a wolf attacking or molesting their domestic animals including pets. Anyone having concerns or problems with wolves close to their residence should inform the nearest Fish and Game office.

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Wolves in the Northern Rocky Mountains (NRM) were delisted on March 28, 2008. The U.S. Fish and Wildlife Service successfully recovered and delisted the population with the help of state, federal, tribal and non-government partners. Management of these wolves now resides with the states of Idaho, Montana and Wyoming. The 2002 legislatively approved Wolf Conservation and Management Plan along with the March

2008 Idaho Fish and Game Wolf Population Management Plan, as well as the laws and policies of the state now govern wolf management in Idaho. Wolves are now listed as a big game animal in Idaho and protected under the laws and policies of the state of Idaho.

Once wolves were delisted, USFWS decided to discontinue the publication of the NRM wolf weekly. Instead, for the time being, Idaho will continue publishing the Idaho specific updates. Along with the USFWS, contributors to the weekly historically have included the USDA APHIS Wildlife Services, the Nez Perce Tribe, and the states of Idaho and Montana. Wyoming was reported on by the USFWS. You may review past wolf weekly publications on our wolf webpage and links along with all pertinent and updated wolf information and publications at:

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EXHIBIT 10

Idaho Wolf Management Progress Report
July 12 - July 27, 2008

EXHIBIT 10

Idaho Wolf Management Progress Report, July 12-July 27, 2008

News

Northern Rocky Mountain Wolf Status: The U.S. Federal District Court in Missoula, Montana, issued a preliminary injunction on Friday, July 18, 2008, that reinstated temporary Endangered Species Act protections for gray wolves in the northern Rocky Mountains pending final resolution of the case. This includes all of Montana, Idaho, and Wyoming, the eastern one-third of Washington and Oregon, and parts of north-central Utah. The U.S. Fish and Wildlife Service is evaluating legal options regarding the court's order and the ongoing litigation over the agency's delisting of the northern Rocky Mountain wolf population. All wolves in the southern half of Montana, south of Interstate-90 in Idaho, and all of Wyoming will be managed under the 2005 and 2008 Endangered Species Act nonessential experimental population 10j regulations. The Idaho Department of Fish and Game will once again act as the designated agent for the Fish and Wildlife Service in day-to-day management of wolves under a memorandum of understanding between the secretary of interior and governor of Idaho signed January 2006.

Monitoring

Kari Holder of the Nez Perce Tribe verified reproduction for a pack in the northern part of the McCall zone, but was unable to see/hear pups. She then teamed up with David Ausband of the University of Montana to conduct a capture operation on the southern part of the same zone; a subadult female wolf was caught and radiocollared.

Isaac Babcock of the Nez Perce Tribe obtained a count of five gray pups on a pack on the Lochsa; he ran a trapline for several days but did not capture any wolves. He also walked in to the last Kelly Creek pack radio-collared wolf's aerial location, but there was no evidence that this was where the pups are located. He also attempted to investigate the Fish Creek suspected rendezvous site, but could not due to snow blocking access roads.

Carter Niemeyer of Idaho Fish and Game and Jim Holyan of the Nez Perce Tribe, upon request from the Washington Department of Fish and Wildlife, captured and radio-collared the breeding female and probable alpha male in the first documented reproductive pack in Washington in many years. This pack is located east of the North Cascades near the Canadian border and has been DNA typed as coming from Canada.

Holyan ran a trap line on near Dworshak Reservoir where he was able to catch only a pup too small to radio-collar; he did observe two gray pups.

Michael Lucid of Idaho Fish and Game worked with several volunteers from the Selway Lodge using stock and volunteer help to trap the Selway Wilderness country.

July 13-19: Jason Husseman of Idaho Fish and Game and Dave Ausband free-range darted B350 to retrieve a failing GPS collar. This was the first wolf Fish and Game has darted from the ground – it is a very difficult feat to sneak up to within 20 yards of a wolf unnoticed and accurately shoot a dart.

July 20-26: Confirmed reproduction and breeding pair status (multiple pups heard howling) of a Sawtooth Zone wolf pack (Yankee Fork). Further attempts will be made to place a collar in this currently uncollared pack.

July 28: UofM research crew heard two adults and counted six black pups along the South Fork of the Payette to verify reproduction in a pack there.

Control

Friday, July 11, U.S. Department of Agriculture's Wildlife Services confirmed that wolves killed a calf on private land near Bear.

July 16, a WS fixed-wing aircrew shot and killed a gray male wolf about a mile from the depredation site near Bear. Traps are being pulled and control efforts are concluded unless there is another depredation.

July 14, WS confirmed that wolf killed a lamb in Rainbow Creek in the Boise National Forest.

July 23, WS shot and killed an adult, black female wolf near the rainbow creek depredation site.

July 14, WS confirmed that a wolf killed a lamb on the Boise National Forest, east of Smith's Ferry. This is the same area where WS confirmed a depredation on July 2.

July 15, WS confirmed that wolves attacked a cow on private land on Smiley Creek near Stanley.

July 15, WS confirmed that wolves killed one calf and probably killed another on a Targhee National Forest grazing allotment on the west side of Bishop Mountain between Ashton and Kilgore.

July 16, WS caught and killed an adult, gray female wolf.

July 18, WS confirmed that at least two wolves killed three rams on private land near Leadore.

July 18, a Fish and Game employee found a ram carcass on private land NE of Idaho City while he was looking for wolf-killed deer and elk. After consulting with WS, the depredation is being considered a probable wolf kill.

July 20, WS confirmed that wolves killed a calf and probably killed another calf on private land near Stanley.

July 22, WS examined three calves that had bite wounds to their flanks and hind quarters. WS confirmed that injuries were caused by wolves. All three calves are expected to survive. The depredation took place on the same private ranch where WS confirmed another depredation on a calf last week and subsequently removed one male wolf. There are still three pairs of cows/calves missing on this ranch.

July 22, WS confirmed that wolves killed five Walker hounds and one blue tick hound near Bridge Creek in Unit 12 in the Clearwater National Forest. The dogs were owned by three brothers, and the wolves killed every dog in the chase.

July 24, WS confirmed that wolves killed a calf on a Salmon-Challis National Forest grazing allotment near Twin Bridges Creek.

July 24, WS confirmed that wolves killed two lambs on a Boise National Forest grazing allotment in Rainbow Creek. WS has confirmed two other depredations at this site in the past several weeks.

July 25, WS investigated a report that wolves had killed a cow on private land near Stanley. The WS investigator saw two wolves chasing cattle. The carcass was consumed to the point where only a determination of "probable" wolf depredation could be made.

July 25, WS confirmed that wolves killed a 400-pound calf on private land just south of the Pine turn-off from Highway 20.

July 26, WS confirmed that wolves killed two calves and probably another on private land near Mullen Basin by Carey. Six calves are missing at this site.

July 26, WS confirmed that wolves killed three yearling ewes on a Boise National Forest grazing allotment west of Pioneerville.

July 26, WS confirmed that wolves killed a calf on private land on Cottonwood Creek, southeast of Horseshoe Bend. WS noted "probable" wolf depredations on this same property – a calf injured on July 18 and a cow killed on July 23.

July 26, WS confirmed two calves killed near Carlson Lake on a Salmon-Challis National Forest grazing allotment.

July 26, WS confirmed that wolves killed a cow and a calf on private land near Salmon.

Management

The collaborative effort among several producers, Idaho Fish and Game, Wildlife Services, U.S. Forest Service, Blaine County Commissioners, and Defenders of Wildlife is ongoing in the Ketchum area. Nonlethal efforts involving use of fladry, penning at night, hazing with hired trained technicians are ongoing to reduce conflicts between wolves and sheep in the area.

Research

Nothing new to report.

Information and Education

July 18, Jason Husseman gave a presentation to about 30 folks at the Idaho Bowhunters gathering near Stanley.

Idaho Fish and Game reminds people that when wolves are in the area, please be aware that they may attack or injure dogs. It often helps to keep dogs in kennels or inside buildings at night and to not let them roam freely when humans are not around. When fresh wolf sign is found, place dogs on restraints and keep supervised. Federal law allows individuals to harass or kill a wolf attacking or molesting their livestock, domestic stock and dogs. If you are having concerns or problems with wolves close to your residence, please inform the Fish and Game Office nearest you.

Past wolf update publications are available for review on our wolf webpage and links along with all pertinent and updated wolf information and publications at: <http://fishandgame.idaho.gov/cms/wildlife/wolves/>

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EXHIBIT 11

Idaho Wolf Management Progress Report
July 28 - August 15, 2008

EXHIBIT 11

Idaho Wolf Management Progress Report July 28 - August 15, 2008

Monitoring

Michael Lucid and Jim Hayden collared a wolf in a new pack in the Panhandle in Game Management Unit 1 to help locate other pack members. Lucid is attempting to locate and capture other wolves in Units 6 and 7 before returning to Unit 1.

Jason Husseman collared a wolf and verified reproduction in the same pack in a remote area of Unit 36. Carter Niemeyer has been working Units 33 and 34 attempting to collar a wolf in a new pack.

Kari Holder of the Nez Perce Tribe conducted a partial monitoring flight to assist field crews' ground efforts. Based on results of that flight, she attempted reproductive surveys for two packs in Units 10 and 12 along the border with Montana. Reproduction was confirmed in one of the packs.

Isaac Babcock of the Nez Perce Tribe also conducted a partial monitoring flight to aid his field investigations. He verified reproduction in a pack in Unit 19A. He attempted to determine the pack/reproductive status of a radio collared disperser from near Fairfield that is now residing near McCall. The wolf was still by itself. Babcock conducted a monitoring flight on August 12.

Jim Holyan of the Nez Perce Tribe attempted to locate the uncollared pack in Unit 15 for reproductive status and potential trapping, but found little wolf sign worth setting up a trap line; he did hear two or three adults howl. He then investigated another pack's traditional home sites in Unit 17, but they are not in use to date. Next Holyan briefly searched another pack's home range in Unit 17; he heard three or four adults howling on two separate occasions, but no pups were located and trapping opportunities were unavailable. He also followed up on a sighting report west of Crooked River (Elk City area), but observed no wolf sign. Holyan conducted monitoring flights on August 6 and 7.

Control

From July 28 to August 15, the U.S. Department of Agriculture's Wildlife Services documented 24 confirmed wolf depredations and five probable wolf depredations on livestock. The federal agents confirmed that wolves killed 77 sheep, four adult cows and seven calves and injured another six sheep and determined that another 11 sheep, seven calves and a guard dog were probable wolf depredations. During the reporting period, WS killed 11 wolves and captured and released six wolves, five of which were radio-collared. During the same time frame in 2007, WS documented eight confirmed wolf depredations and one probable wolf depredation.

Nonlethal control efforts are ongoing as per the Idaho Wolf Population Management Plan in the area between Leadore and Yellowstone National Park along the Montana border. Radio collars have been placed on wolves in the area that have been implicated in depredations to further knowledge of wolf movement in the area and pursue nonlethal options prior to lethal control. Discussions of and use of nonlethal tools are ongoing with livestock producers to assist them in reducing livestock-wolf problems along this potential corridor.

Additionally, nonlethal efforts continue in a cooperative effort near Ketchum to reduce livestock-wolf conflicts. Four producers, U.S. Forest Service, U.S.D.A. Wildlife Services, Idaho Fish and Game, Blaine County Commission and Defenders of Wildlife are experimenting with the use of paid nonlethal personnel (funded by Defenders) who use fladry and penning for sheep at night, and attempt to scare wolves away from sheep during the night. Wolves have been around the sheep on a regular basis but to date only one sheep has been confirmed killed by wolves.

Research

Nothing new to report.

Information and Education

The new Idaho Fish and Game wolf Webpage now includes information on the lawsuit and injunction that caused wolves to be temporarily relisted under the Endangered Species Act. It also has updated information on the new 10(j) rule under which Idaho Fish and Game is acting as the “designated agent” for the U.S. Fish and Wildlife Service, and conducting day-to-day wolf management. What the public can and can’t do under the new rules is discussed. The page is at: <http://fishandgame.idaho.gov/cms/wildlife/wolves/>

We also would like to remind people that when wolves are in the area, please be aware that they may attack or injure dogs. It often helps to keep dogs in kennels or inside buildings at night and to not let them roam freely when humans are not around. When fresh wolf sign is found, place dogs on restraints and keep supervised. The 10(j) rule allows individuals to harass or kill a wolf attacking or molesting their livestock and stock animals including pets. If you are having concerns or problems with wolves close to your residence, please inform the Fish and Game office nearest you.

Please help us manage wolves by reporting wolf sightings on our Fish and Game observation form found at: http://fishandgame.idaho.gov/apps/wolf_report/

New: FWS – Northern Rocky Mountain Wolf Status (WY, MT and ID): The U.S. Federal District Court in Missoula, Montana, issued a preliminary injunction on Friday, July 18, 2008, that immediately reinstated temporary Endangered Species Act protections for gray wolves in the northern Rocky Mountains pending final resolution of the case. This includes all of Montana, Idaho and Wyoming,

the eastern third of Washington and Oregon, and parts of north-central Utah. The USFWS is evaluating legal options regarding the court's order and the ongoing litigation over the agency's delisting of the northern Rocky Mountain wolf population. All wolves in the southern half of Montana, all portions of Idaho south of Interstate-90, and all of Wyoming will be managed under the 2005 and 2008 Endangered Species Act nonessential experimental population 10(j) regulations. The Idaho Department of Fish and Game will once again act as the designated agent for the USFWS in implementing day-to-day management of wolves under the MOU between the secretary of interior and governor of Idaho signed January 2006.

Delisting wolves and assuring their proper long-term management is and has been of highest priority for the state of Idaho and the Fish and Game Department. We continue to work along with the departments of Interior and Justice, states and interveners toward the eventual delisting of wolves in the Northern Rocky Mountains, and move toward state management under the Idaho Wolf Conservation and Management Plan and the Idaho Wolf Population Management Plan. You may hear deputy attorney general Clive Strong discuss the legal situation and what the state is doing at the following link:

<http://fishandgame.idaho.gov/cms/wildlife/wolves/court/>

You may review past wolf weekly publications on our wolf webpage and links along with all pertinent and updated wolf information and publications at:

<http://fishandgame.idaho.gov/cms/wildlife/wolves/>

EXHIBIT 12

Idaho Wolf Management Progress Report
August 16 - August 29, 2008

EXHIBIT 12

**Idaho Wolf Management
Progress Report
Weeks of August 16 – August 29, 2008**

Monitoring

Idaho Fish and Game efforts to collar wolves continue in the Bear Valley area, Panhandle, and Salmon. Radio telemetry flights are showing pups beginning to travel with adults and making it harder to catch up to packs for collaring efforts.

The Nez Perce Tribe biologists collared one wolf in a pack east of Bovil and conducted telemetry flights and pup counts in the Lochsa area verifying reproduction in two packs.

Management

From January 1 – August 29, Idaho Fish and Game and the Nez Perce Tribe have documented 102 dead wolves. Of those, 63 were depredation control actions, five illegal kills, 13 legal kills, three natural kills and 17 other. An additional nine wolves were suspected dead – reported road kills not verified, collars on mortality not picked up, etc. Depredations are at record levels this year nearly doubling levels incurred last year at this time.

Control

From August 16 to August 29, the U.S. Department of Agriculture's Wildlife Services documented 17 confirmed wolf depredations and four probable wolf depredations on livestock. The federal agents confirmed that wolves killed 18 sheep, one adult cow, six calves and a guard dog and injured another cow, three calves and a guard dog and determined that another seven sheep and one calf were probable wolf depredations. During the reporting period, Wildlife Services killed 10 wolves and captured and released six wolves, one of which was radiocollared. During the same period in 2007, Wildlife Services documented eight confirmed wolf depredations and two probable wolf depredations.

Non-lethal control efforts are ongoing as per the Idaho Wolf Population Management Plan in the area between Leodore and Yellowstone along the boundary with Montana. Radio collars have been placed on wolves in the area that have been implicated in depredations to further knowledge of wolf movement in the area and pursue non-lethal options prior to lethal control. Discussions of and use of non-lethal tools are ongoing with livestock producers to assist them in reducing livestock/wolf problems along this potential corridor.

Additionally, non-lethal efforts continue in a cooperative effort near Ketchum to reduce livestock/wolf conflicts. Four producers, U.S. Forest Service, Wildlife Services, Fish and Game, Blaine County Commission, and Defenders of Wildlife

are experimenting with the use of paid non-lethal personnel (funded by Defenders) who use fladry and penning for sheep at night, and attempt to scare wolves away from sheep during the night. Wolves have been around the sheep on a regular basis but to date only one sheep has been confirmed killed by wolves.

Research

Nothing new to report.

Information and Education

The new Idaho Fish and Game Wolf Web page is up and running. The new Web page includes information on the lawsuit and injunction that caused wolves to be temporarily relisted under the Endangered Species Act. It also has updated information on the new 10j rule under which Fish and Game is acting as the “designated agent” for the U.S. Fish and Wildlife Service, and conducting day-to-day wolf management. What the public can and can’t do under the new rules is discussed. You can find the new webpage at:

<http://fishandgame.idaho.gov/cms/wildlife/wolves/>

We also would like to remind people that when wolves are in the area, please be aware that they may attack or injure dogs. It often helps to keep dogs in kennels or inside buildings at night and to not let them roam freely when humans are not around. When fresh wolf sign is found, place dogs on restraints and keep supervised. The 10j rule allows individuals to harass or kill a wolf attacking or molesting their livestock and stock animals including pets. If you are having concerns or problems with wolves close to your residence, please inform the Fish and Game Office nearest you.

Please help us manage wolves by reporting wolf sightings on our Fish and Game observation form found at:

http://fishandgame.idaho.gov/apps/wolf_report/

New: FWS – Northern Rocky Mountain Wolf Status (Wyoming, Montana, Idaho): The U.S. Federal District Court in Missoula, Montana, issued a preliminary injunction on Friday, July 18, 2008, that immediately reinstated temporary Endangered Species Act protections for gray wolves in the northern Rocky Mountains pending final resolution of the case. This includes all of Montana, Idaho and Wyoming, the eastern third of Washington and Oregon, and parts of north-central Utah. The Fish and Wildlife Service is evaluating legal options regarding the court’s order and the ongoing litigation over the agency’s delisting of the northern Rocky Mountain wolf population. All wolves in the southern half of Montana, all portions of Idaho south of Interstate 90, and all of Wyoming will be managed under the 2005 and 2008 Endangered Species Act nonessential experimental population 10j regulations. Idaho Fish and Game will

once again act as the designated agent for the Fish and Wildlife Service in implementing day-to-day management of wolves under the MOU between the Secretary of Interior and Governor of Idaho signed January 2006.

Delisting wolves and assuring their proper long-term management is and has been of highest priority for the state of Idaho and the Fish and Game Department. We continue to work along with the Department of Interior, Department of Justice, and other states and interveners toward the eventual delisting of wolves in the Northern Rocky Mountains, and move toward state management under the state Wolf Conservation and Management Plan and the Wolf Population Management Plan. You may hear deputy attorney general Clive Strong discuss the legal situation and what the state is doing at the following link: <http://fishandgame.idaho.gov/cms/wildlife/wolves/court/>

You may review past wolf weekly publications on our wolf webpage and links along with all pertinent and updated wolf information and publications at: <http://fishandgame.idaho.gov/cms/wildlife/wolves/>

EXHIBIT 13

Idaho Wolf Management Progress Report
August 29 - September 12, 2008

EXHIBIT 13

Idaho Wolf Management Progress Report August 29 – September 12, 2008

Monitoring

Fish and Game efforts to collar wolves continued in the Bear Valley area, Panhandle and Salmon. Two wolves were collared by Idaho Fish and Game north of Lowman on a new pack and another wolf was collared in Unit 35. Pups were verified in a pack in Unit 6.

The U.S. Fish and Wildlife Service has asked the states to provide mid-summer population estimates. Idaho provided the Service with preliminary estimates that will likely be very different at the end of the year. So far in Idaho this year, Fish and Game and the Nez Perce Tribe estimate there are 771 adult wolves and 89 packs, and biologists verified at least 155 pups so far. Counting wolves is best done from November through mid- January before to peak dispersal and breeding times, and when snow covered ground provides better observations conditions from the air. Our end of year counts are finalized and published in the annual reports in March. You can see previous year's progress reports at:

<http://fishandgame.idaho.gov/cms/wildlife/wolves/manage/>

Management

From January 1 – September 12, agencies have documented 112 dead wolves in Idaho. Of those, 73 were depredation control actions by USDA Wildlife Services, five illegal kills, 13 legal kills, three natural kills, and 17 other. An additional nine wolves were suspected dead – reported road kills not verified, collars on mortality not picked up, etc. Depredation events are at record levels this year nearly doubling levels incurred last year at this time.

From January 1 – September 10, Wildlife Services confirmed that wolves killed eight cows, 73 calves, 189 sheep and 10 dogs; injured one cow, seven calves, six sheep and four dogs; probably killed five cows, 19 calves and 52 sheep; and injured one cow, three calves and one sheep.

Control

From August 30 – September 11, Wildlife Services confirmed eight wolf depredations and determined that another one was a probable wolf depredation. WS confirmed that wolves killed a cow, five calves, two sheep and a guard dog. WS also confirmed that wolves attacked and injured a hound being used to trail bears, and determined that another calf was a probable wolf kill. During the reporting period, WS killed 10 wolves in response to these and previously confirmed depredations. During the same time last year, WS investigated seven confirmed and one probable wolf depredation.

Non-lethal control efforts are ongoing as per the Idaho Wolf Population Management Plan in the area between Leodore and Yellowstone along the boundary with Montana. Radio collars have been placed on wolves in the area that have been implicated in depredations to further knowledge of wolf movement in the area and pursue non-lethal options prior to lethal control. Discussions of and use of non-lethal tools are ongoing with livestock producers to assist them in reducing livestock/wolf problems along this potential corridor.

Additionally, non-lethal efforts continue in a cooperative effort near Ketchum to reduce livestock/wolf conflicts. Four producers, U.S. Forest Service, Wildlife Services, Fish and Game, Blaine County Commission, and Defenders of Wildlife are experimenting with the use of paid non-lethal personnel (funded by Defenders) who use fladry and penning for sheep at night, and attempt to scare wolves away from sheep during the night. Wolves have been around the sheep on a regular basis but to date only one sheep has been confirmed killed by wolves.

Research

Nothing new to report.

Information and Education

The new Idaho Fish and Game Wolf web page is up and running. The new page includes information on the lawsuit and injunction that caused wolves to be temporarily relisted under the Endangered Species Act. It also has updated information on the new 10(j) rule under which Fish and Game is currently acting as the “designated agent” for the Fish and Wildlife Service, and conducting day-to-day wolf management. What the public can and can’t do under the new rules is discussed. The new web page is at: <http://fishandgame.idaho.gov/cms/wildlife/wolves/>

Fish and Game also would like to remind people that when wolves are in the area, please be aware that they may attack or injure dogs. It often helps to keep dogs in kennels or inside buildings at night and to not let them roam freely when humans are not around. When fresh wolf sign is found, place dogs on restraints and keep supervised. The 10(j) rule allows individuals to harass or kill a wolf attacking or molesting their livestock and stock animals including pets. If you are having concerns or problems with wolves close to your residence, please inform the nearest Fish and Game office.

Please help us manage wolves by reporting wolf sightings on our Fish and Game observation form found at:

http://fishandgame.idaho.gov/apps/wolf_report/

FWS – Northern Rocky Mountain Wolf Status (WY, MT, ID): The U.S. District Court in Missoula, Montana, issued a preliminary injunction on Friday, July 18, that immediately reinstated temporary Endangered Species Act protections for gray wolves

in the northern Rocky Mountain, pending final resolution of the case. This includes all of Montana, Idaho and Wyoming, the eastern one-third of Washington and Oregon, and parts of north-central Utah. The Fish and Wildlife Service, the states, and Department of Justice are evaluating legal options regarding the court's order and the ongoing litigation over the agency's delisting of the northern Rocky Mountain wolf population. All wolves to the north of Interstate- 90 in Idaho are once again listed as endangered. All wolves in the southern half of Montana, all portions of Idaho south of Interstate-90, and all of Wyoming will be managed under the 2005 and 2008 Endangered Species Act nonessential experimental population 10(j) regulations. Idaho Fish and Game will once again act as the designated agent for the Fish and Wildlife Service in implementing day-to-day management of wolves under the MOU between the Secretary of Interior and Governor of Idaho signed January 2006.

Delisting wolves and assuring their proper long-term management is and has been of highest priority for the state of Idaho and the Fish and Game Department. We continue to work along with the Department of Interior, Department of Justice, and other states and interveners toward the eventual delisting of wolves in the Northern Rocky Mountains, and move toward state management under the Idaho Wolf Conservation and Management Plan and the Wolf Population Management Plan. You may hear deputy attorney general Clive Strong discuss the legal situation and what the state is doing at the following link: <http://fishandgame.idaho.gov/cms/wildlife/wolves/court/>

You may review past wolf weekly publications on our wolf webpage and links along with all pertinent and updated wolf information and publications at: <http://fishandgame.idaho.gov/cms/wildlife/wolves/>

EXHIBIT 14

Idaho Wolf Management Progress Report
September 13 - September 26, 2008

EXHIBIT 14

IDAHO WOLF MANAGEMENT PROGRESS REPORT September 13 – September 26, 2008

Monitoring

Idaho Department of Fish and Game and U.S. Department of Agriculture's Wildlife Services verified more than seven wolves, including several pups, in a new pack near the Canadian border. The wolves were localized near cattle on public land. There are no apparent depredations, and cattle are scheduled to be removed from public land in a few days. Producers were contacted and contact was made with the local U.S. Forest Service district biologist and ranger. A capture effort was unsuccessful.

The Nez Perce Tribe captured and radio-collared two wolves in Unit 20A in the Frank Church-River of No Return Wilderness. The tribe obtained pack/pup count on a pack in Unit 10, with a minimum of six gray adults and four gray pups present.

Idaho provided the U.S. Fish and Wildlife Service with preliminary population estimates that will likely change by the end of the year. As of mid September, Fish and Game and the Nez Perce estimated 771 wolves and 89 packs, and biologists verified at least 155 pups. Counting wolves is best done from November through mid- January prior to peak dispersal and breeding times, and when snow covered ground provides better observations conditions from the air. End of year counts are completed and published in the annual reports in March. In 2007, the end of year estimate was 732 wolves in 83 packs. Previous years' progress reports at: <http://fishandgame.idaho.gov/cms/wildlife/wolves/manage/>

Management

From January 1 – September 26, agencies have documented 118 dead wolves in Idaho. Of those, 78 were depredation control actions by Wildlife Services, five were illegal kills, 13 legal kills, three natural deaths and 17 others. An additional nine wolves were suspected dead (reported road kills not verified, collars on mortality not picked up, etc.).

From January 1 through September 26, WS confirmed that wolves killed nine cows, 75 calves, 193 sheep and 13 dogs; injured one cow, seven calves, six sheep and seven dogs; probably killed five cows, 19 calves and 57 sheep; and probably injured one cow, three calves and one sheep.

Control

From September 13 through 26, WS confirmed five wolf depredations and determined that another one was a probable wolf depredation. WS confirmed

that wolves killed a cow, two calves, four sheep and a guard dog. WS also confirmed that wolves attacked and injured three guard dogs, and determined that another five sheep were probable wolf kills. During the reporting period, WS killed six wolves and trapped and released three wolves (two with collars) in response to these and previously confirmed depredations. During the same time frame last year, WS investigated six confirmed and one probable wolf depredation

Non-lethal control efforts are ongoing as per the Idaho Wolf Population Management Plan in the area between Leodore and Yellowstone along the boundary with Montana. Radio collars have been placed on wolves in the area that have been implicated in depredations to further knowledge of wolf movement in the area and pursue non-lethal options prior to lethal control. Discussions of and use of non-lethal tools are ongoing with livestock producers to assist them in reducing livestock/wolf problems along this potential corridor.

Additionally, non-lethal efforts continue in a cooperative effort near Ketchum to reduce livestock/wolf conflicts. Four producers, U.S. Forest Service, USDA Wildlife Services, Idaho Fish and Game, Blaine County Commission, and Defenders of Wildlife are experimenting with the use of paid non-lethal personnel (funded by Defenders) who use fladry and penning for sheep at night, and attempt to scare wolves away from sheep during the night. Wolves have been around the sheep on a regular basis but to date only one sheep has been confirmed killed by wolves.

Research

The University of Montana research crews wrapped up their summer efforts last week. The goal of this project is to find reliable, alternative population monitoring tools that are cheaper to implement than traditional radio-collaring methods. University crews had a successful summer, testing "howl boxes" near multiple wolf rendezvous sites and collecting nearly 2,000 genetic samples from scats and day beds while surveying more than 500 predicted rendezvous sites in central Idaho. Data analysis is under way.

Thanks to Dave Ausband the research leader, and Morgan Anderson, Barbara Fannin, Sean Howard, Ryan Kalinowski, Teresa Loya, Doug Miles, Adrian Roadman, Lacy Robinson, Adia Sovie, Jennifer Stenglein, and Ryan Wilbur for another great, productive summer.

Information and Education

Hunting season is upon us. We have received several reports of wolves being attracted to hunters calling elk, and wolves visiting hunter camps or eating poorly hung carcasses. Idaho Fish and Game recommends that hunters be aware that hunting increases chances of running into or attracting wolves and other

carnivores. Carcasses and gut piles attract bears, lions and wolves and should be treated carefully to avoid problems, such as having your meat fed upon. The rule of thumb is to try to get the carcass out of the woods the same day it is killed. It helps to place the gut pile on a tarp and drag it away from the carcass. If that is not possible, hang meat 10 feet off the ground. You should leave clothes, human scent, tarps, etc. to deter carnivores from scavenging your meat. When returning to your kill, approach the carcass carefully and view it safely from a distance.

Carnivores, especially bears, may be close by and might attempt to defend the carcass. Some bears, wolves, coyotes and other scavengers may venture into campsites if they smell meat or other foods. Place your game pole down wind of your camp and make sure the meat is secured 10 feet off the ground and three feet from a tree. Bears and wolves may eat carcasses hung within reach.

Also, wolves are protected under the endangered species act and killing one illegally is a federal offense.

The new Fish and Game Wolf Webpage is online. The new webpage includes information on the lawsuit and injunction that caused wolves to be temporarily relisted under the Endangered Species Act. It also has updated information on the new 10j rule under which Fish and Game is acting as the “designated agent” for the Fish and Wildlife Service, and conducting day to day wolf management. What the public can and can’t do under the new rules is discussed. The new webpage is at: <http://fishandgame.idaho.gov/cms/wildlife/wolves/>

We also would like to remind people that when wolves are in the area, please be aware that they may attack or injure dogs. It often helps to keep dogs in kennels or inside buildings at night and to not let them roam freely when humans are not around. When fresh wolf sign is found, place dogs on restraints and keep supervised. The 10j rule allows individuals to harass or kill a wolf attacking or molesting their livestock and stock animals including pets. If you are having concerns or problems with wolves close to your residence, please inform the nearest Fish and Game office.

Please help us manage wolves by reporting wolf sightings on our Fish and Game observation form found at: http://fishandgame.idaho.gov/apps/wolf_report/

New: FWS – Northern Rocky Mountain Wolf Status (WY, MT, ID): The U.S. District Court in Missoula, Montana, issued a preliminary injunction July 18, 2008, that immediately reinstated temporary Endangered Species Act protections for gray wolves in the northern Rocky Mountains pending final resolution of the case. This includes all of Montana, Idaho, and Wyoming, the eastern one-third of Washington and Oregon, and parts of north-central Utah. On September 22, the United States filed its motion to vacate the delisting rule, return the gray wolf to the list of endangered and threatened species, and remand the matter to the Fish

and Wildlife Service. Fish and Wildlife, the states, and Department of Justice await the court's decision. All wolves to the north of Interstate- 90 in Idaho remain listed as endangered. All wolves in the southern half of Montana, all portions of Idaho south of Interstate-90 and all of Wyoming are being managed under the 2005 and 2008 Endangered Species Act nonessential experimental population 10j regulations. Idaho Fish and Game is the designated agent for the Fish and Wildlife Service in day-to-day management of wolves under the MOU between the secretary of interior and governor of Idaho signed January 2006.

Delisting wolves and assuring their proper long-term management is and has been of highest priority for the state of Idaho and the Fish and Game Department. We continue to work with the departments of interior and justice, other states and interveners toward the delisting wolves in the Northern Rocky Mountains, and toward state management under the state Wolf Conservation and Management Plan and the Wolf Population Management Plan.

You may review past wolf weekly publications on our wolf webpage and links along with all pertinent and updated wolf information and publications at:

<http://fishandgame.idaho.gov/cms/wildlife/wolves/>

EXHIBIT 15

Idaho Wolf Management Progress Report
September 26 - October 17, 2008

EXHIBIT 15

**IDAHO WOLF MANAGEMENT
PROGRESS REPORT
September 26 – October 17, 2008**

Monitoring

Over the past two weeks, Idaho Fish and Game biologists have placed collars on two wolves incidentally caught and held in fox traps by private individuals north of Fairfield. Biologist also collared two wolves in a pack north of Idaho City that was involved in a depredation. Wolves were harassed out of the area where the depredation occurred.

Seasonal Nez Perce Tribal biologists Isaac Babcock and Kari Holder have completed their field efforts for the year.

Management

Idaho Fish and Game investigated cause of death of two wolf carcasses, one in Unit 28 and one in Unit 27. The Nez Perce Tribe investigated one.

From January 1 – October 15, agencies have documented 124 dead wolves in Idaho. Of those, 80 were depredation control actions by U.S. Department of Agriculture’s Wildlife Services, five were illegal kills, 13 were legal kills, three were natural deaths, and 23 were other or unknown. An additional nine wolves were suspected dead (reported road kills not verified, collars on mortality not picked up, etc.).

From January 1 – October 15, Wildlife Services confirmed that wolves killed 11 cows, 79 calves, 210 sheep, 13 dogs; injured one cow, seven calves, six sheep, seven dogs; probably killed five cows, 21 calves, 57 sheep; and injured one cow, three calves and one sheep.

Table 1. Confirmed wolf depredations and wolf mortality in Idaho from 2003 to October 15, 2008.

YEAR	Depredations ¹				Wolf Mortality			
	Cattle	Sheep	Dogs	Total	WS ²	10j ³	Other	Total
2003	7	130	3	140	7	0	8	15
2004	19	176	4	199	17	0	21	39
2005	29	166	12	207	24	3	16	43
2006	41	237	4	282	35	7	19	61
2007	57	211	10	278	43	7	27	77
2008	90	210	13	313	80	13	31	124
Total	243	1130	46	1419	206	30	122	359

¹ Includes depredations resulting in death or injury

² Authorized take by Wildlife Services

³ Authorized take under 10j for protection of stock and dogs

Control

From September 26 – October 15, WS confirmed eight wolf depredations and determined that another depredation was probable. WS confirmed that wolves killed 17 sheep, two cows and four calves and probably killed another two calves. During the

reporting period, WS killed two wolves in response to these and earlier depredations. During the same time period last year, WS confirmed five wolf depredations and had another six that were determined to be “probables”.

Non-lethal efforts are wrapping up this week for a cooperative effort near Ketchum to reduce livestock/wolf conflicts. Sheep are being gathered up for the year. Four producers, USFS, USDA Wildlife Services, Idaho Fish and Game, Blaine County Commission, and Defenders of Wildlife experimented with the use of paid non-lethal personnel (funded by Defenders) who used fladry and penning for sheep at night, and attempted to scare wolves away from sheep during the night. Wolves were around the sheep on a regular basis but only one sheep was confirmed killed by wolves all summer.

Research

Nothing new to report.

Information and Education

Hunting season is upon us. We have received several reports of wolves being attracted to hunters calling elk, and wolves visiting hunter camps or eating poorly hung carcasses. Fish and Game recommends that hunters be aware that the sport of hunting increases chances of running into or attracting wolves and other carnivores.

Carcasses and gut piles attract bears, lions, and wolves and should be treated carefully to avoid problems such as having your meat fed upon. The rule of thumb is to try to get the carcass out of the woods the same day it is killed. It helps to place the gut pile on a tarp and drag it away from the carcass. If that is not possible, hang meat 10 feet off the ground. You should leave clothes, human scent, tarps, etc. to deter carnivores from scavenging your meat.

When returning to your kill, approach the carcass carefully and view it safely from a distance. Carnivores especially bears may be close by and might attempt to defend the carcass. Some bears, wolves, coyotes and other scavengers may venture into campsites if they smell meat or other foods. Place your game pole down wind of your camp and make sure the meat is secured 10 feet off the ground and 3 feet from a tree. Bears and wolves may eat carcasses hung within reach.

Also, wolves are protected under the endangered species act and killing one illegally is a federal offense.

The wolf webpage includes information on the lawsuit and injunction that caused wolves to be temporarily relisted under the Endangered Species Act. It also has updated information on the new 10j rule under which Fish and Game is acting as the “designated agent” for the USFWS, and conducting day to day wolf management. What the public can and can't do under the new rules is discussed. You can find the new webpage at: <http://fishandgame.idaho.gov/cms/wildlife/wolves/>

We also would like to remind people that when wolves are in the area, please be aware that they may attack or injure dogs. It often helps to keep dogs in kennels or inside buildings at night and to not let them roam freely when humans are not around. When fresh wolf sign is found, place dogs on restraints and keep supervised. The 10j rule

allows individuals to harass or kill a wolf attacking or molesting their livestock and stock animals including pets. If you are having concerns or problems with wolves close to your residence, please inform the Fish and Game Office nearest you.

Please help us manage wolves by reporting wolf sightings on our Fish and Game observation form found at: http://fishandgame.idaho.gov/apps/wolf_report/

New: FWS – Northern Rocky Mountain Wolf Status (WY, MT, ID): The U.S. Federal District Court in Missoula, Montana, on October 14, filed an order granting the United States' motion to remand the delisting rule to the U.S. Fish and Wildlife Service.

U. S. District Judge Donald W. Molloy also dismissed the case, filed by 12 conservation and animal rights groups, challenging the delisting rule.

The U.S. Department of Interior and Department of Justice are reviewing options and say the remand was the most expedient way to address the courts concerns and to delist wolves. For the time being, all wolves to the north of Interstate-90 in Idaho remain listed as endangered. All wolves in the southern half of Montana, all portions of Idaho south of Interstate-90, and all of Wyoming are being managed under the 2005 and 2008 Endangered Species Act nonessential experimental population 10j regulations. The State of Idaho Department of Fish and Game is acting as the designated agent for the USFWS in implementing day-to-day management of wolves under the MOU between the Secretary of Interior and Governor of Idaho signed January 2006.

Molloy had issued a preliminary injunction on Friday, July 18, 2008, that reinstated temporary Endangered Species Act protections for gray wolves in the northern Rocky Mountain DPS pending final resolution of the case. This included all of Montana, Idaho, and Wyoming, the eastern one-third of Washington and Oregon, and parts of north-central Utah. On September 22, the United States filed its motion to vacate the delisting rule, return the gray wolf to the list of endangered and threatened species, and remand the matter to the Fish and Wildlife Service.

Delisting wolves and assuring their proper long-term management is and has been of highest priority for the state of Idaho and the Fish and Game Department. We continue to work along with the Department of Interior, Department of Justice, and other states and interveners toward the eventual delisting of wolves in the Northern Rocky Mountains, and move toward state management under the State Wolf Conservation and Management Plan and the Wolf Population Management Plan.

You may review past wolf weekly publications on our wolf webpage and links along with all pertinent and updated wolf information and publications at: <http://fishandgame.idaho.gov/cms/wildlife/wolves/>

EXHIBIT 16

Idaho Wolf Management Progress Report
October 18 - November 3, 2008

EXHIBIT 16

Idaho Wolf Management Progress Report October 18 - Nov 3, 2008

Delisting Update

On October 24, the U.S. Fish and Wildlife Service announced it is reopening the public comment period on its proposal to delist the gray wolf in the northern Rocky Mountains. In a notice published in the Federal Register October 28, Fish and Wildlife asked the public to comment and provide any additional information on the February 2007 proposal to delist wolves. Fish and Wildlife is seeking additional information on a variety of topics related to the delisting. More details are available in the Federal Register notice which will be posted along with associated materials at the Fish and Wildlife Service's northern Rocky Mountains wolf website: <http://westerngraywolf.fws.gov>.

The public will have until November 28, 2008, to submit their comments to the Federal Rulemaking Portal at <http://www.regulations.gov>, via U.S. mail or by hand delivery to: Public Comments Processing, Attn: RIN 1018-Au53; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, Suite 222; Arlington, VA 22203.

In Idaho, all wolves north of Interstate-90 remain listed as endangered. All wolves in the southern half of Montana, all of Idaho south of Interstate-90, and all of Wyoming are being managed under the 2005 and 2008 Endangered Species Act nonessential experimental population 10j regulations. The Idaho Department of Fish and Game is acting as the designated agent for the USFWS in implementing day-to-day management of wolves under the MOU between the Secretary of Interior and Governor of Idaho signed January 2006.

Delisting wolves and assuring their proper long-term management is and has been of highest priority for the state of Idaho and the Fish and Game Department. We continue to work with the Department of Interior, Department of Justice, and other states and interveners toward the eventual delisting of wolves in the Northern Rocky Mountains, and move toward state management under the State Wolf Conservation and Management Plan and the Wolf Population Management Plan.

You may review past wolf weekly publications on our wolf webpage and links along with all pertinent and updated wolf information and publications at: <http://fishandgame.idaho.gov/cms/wildlife/wolves/>

Monitoring

Aerial telemetry flights are ongoing. November and December are the primary months Idaho Fish and Game and the Nez Perce Tribe attempt to count wolf pack members from the air. Snow conditions and time of year when pack members tend to congregate allow us to get pack sizes from the air.

Management

From January 1 – November 3, agencies have documented 131 dead wolves in Idaho. Of those, 82 were depredation control actions by USDA Wildlife Services, nine illegal kills, 13 legal kills, four natural kills, and 23 other or unknown. Wildlife Services also confirmed that wolves: killed 11 cows, 80 calves, 211 sheep and 13 dogs; injured one cow, seven calves, six sheep and seven dogs; probably killed five cows, 21 calves and 57 sheep; injured one cow, three calves and one sheep.

Table 1. Confirmed wolf depredations and wolf mortality in Idaho from 2003 to October 15, 2008.

YEAR	Depredations ¹				Wolf Mortality			
	Cattle	Sheep	Dogs	Total	WS ²	10j ³	Other	Total
2003	7	130	3	140	7	0	8	15
2004	19	176	4	199	17	0	21	39
2005	29	166	12	207	24	3	16	43
2006	41	237	4	282	35	7	19	61
2007	57	211	10	278	43	7	27	77
2008	91	211	13	315	82	13	36	131
Total	243	1130	46	1419	208	30	126	364

¹ Includes depredations resulting in death or injury

² Authorized take by Wildlife Services

³ Authorized take under 10j for protection of stock and dogs

Control

From October 16 – November 3, WS confirmed two wolf depredations on livestock. WS confirmed that wolves killed one calf and one ram, both on private land. In response to those depredations, WS shot and killed two wolves. During the same time in 2007, WS verified two probable wolf depredations.

Non-lethal efforts wrapped up last week with a meeting among cooperators near Ketchum who worked together to reduce livestock/wolf conflicts. Four producers, USFS, USDA Wildlife Services, Idaho Fish and Game, Blaine County Commission, and Defenders of Wildlife experimented with the use of paid non-lethal personnel (funded by Defenders) who used fladry and penning for sheep at night, and attempted to scare wolves away from sheep during the night. Wolves were around the sheep on a regular basis but only one sheep was confirmed killed by wolves all summer. The effort was considered a success by producers and cooperators and may be implemented again in the future should funding and qualified personnel be available.

Research

Nothing new to report.

Information and Education

On October 25 Jim Holyan of the Nez Perce Tribe gave a presentation on wolf biology and ecology to about 25 third-grade students at Barbara Morgan Elementary School in McCall.

On November 1, Steve Nadeau gave a presentation to 15 members of the Idaho Sportsmen's Caucus Advisory Council in Boise and teleconferenced to Idaho Falls and Jerome, where six sportsmen group leaders and two legislators were connected.

A reminder: Wolves are protected under the endangered species act and killing one illegally is a federal offense.

Please help manage wolves by reporting wolf sightings on the Fish and Game observation form found at: http://fishandgame.idaho.gov/apps/wolf_report/.

Delisting: FWS – Northern Rocky Mountain Wolf Status (WY, MT, ID)

The U.S. Federal District Court in Missoula, Montana, issued a preliminary injunction on Friday, July 18, 2008, that immediately reinstated temporary Endangered Species Act protections for gray wolves in the northern Rocky Mountain DPS pending final resolution of the case. This includes all of Montana, Idaho, and Wyoming, the eastern one-third of Washington and Oregon, and parts of north-central Utah. On September 22, the United States filed its motion to vacate the delisting rule, return the gray wolf to the list of endangered and threatened species, and remand the matter to the Fish and Wildlife Service. On October 14, Judge Molloy filed an order granting the United States' motion to remand the delisting rule back to the Fish and Wildlife Service. He also dismissed the case.

EXHIBIT 17

Memorandum of Understanding Between
Idaho Department of Fish and Game and
Idaho State Animal Damage Control Board, with
Livestock Protocol for Delisted Wolves dated
March 28, 2008

EXHIBIT 17

MEMORANDUM OF UNDERSTANDING
BETWEEN
IDAHO DEPARTMENT OF FISH AND GAME
AND
IDAHO STATE ANIMAL DAMAGE CONTROL BOARD

This agreement made and entered into, by and between the Idaho Department of Fish and Game (hereinafter Department), and the Idaho State Animal Damage Control Board (hereinafter Board) is made in reference to the following facts:

RECITALS

- A. The Department is charged with the management, preservation, and protection of wildlife in the state of Idaho pursuant to Title 36, *Idaho Code*.
- B. The Board is responsible for prevention and control of damage caused by predatory animals and other vertebrate pests, including threatened and endangered species within the State of Idaho as described in Section 25-128, *Idaho Code*, and has delegated such responsibility to Wildlife Services (hereinafter WS) of the Animal and Plant Health Inspection Service, U.S. Department of Agriculture, by way of a Memorandum of Understanding signed January 7, 1988.
- C. The parties wish to cooperate to facilitate conduct of wildlife damage management activities in the state of Idaho consistent with the Department's lawful charge which includes protecting wildlife species managed by the Department. Such cooperation should include employing available technologies, designation of responsibility, and efficient deployment of personnel, as well as sharing information gathered from such activities.

NOW, THEREFORE, in consideration of the recitals stated above, the parties agree as follows:

SECTION 1
Take Authorization

This MOU is WS's authorization from the Department to take protected wildlife in the state of Idaho in order to prevent or reduce damage to agriculture, natural resources, and property, and to minimize threats to human health and safety. The conditions of this authorization are:

- A. WS employees are exempt from State requirements to possess hunting or trapping licenses or hound hunter permits during the conduct of their official duties.

- B. WS shall supply the Department with a master list of personnel (including mailing addresses and telephone numbers) operating under this authorization. This master list shall be updated by WS anytime a change is made in personnel, addresses, or telephone numbers, and an updated copy of this list will be mailed to the Bureau of Wildlife as soon as is practical. The Bureau of Wildlife will distribute this list to the appropriate Department bureaus and regions.
- C. Only WS traps or snares may be used by WS personnel working under this MOU. Each trap or snare shall be marked with an identification tag, in addition to any stamp on the trap itself, to facilitate officer inspection.
- D. All animals taken other than predators (*Idaho Code 36-201*) shall remain the property of the Department and all salvageable parts (pelts, claws, teeth, etc.) must be presented to the Department's Regional Office of the region in which they were taken (hereinafter affected region), or disposed of according to its instructions.
- E. WS shall keep complete records pertaining to animals taken and shall prepare and submit an annual report detailing the activities undertaken pursuant to this authorization. WS shall submit said report no later than December 31 of each year to the Chief, Bureau of Wildlife. The report shall include species taken, number of animals taken, method of take, and county of take.

SECTION 2

Accidental Taking of Protected Nontarget Birds and Mammals

Protected nontarget birds and mammals that are accidentally captured shall be treated as follows:

- A. If the animal is dead, salvageable parts shall be turned over to the affected region or disposed of according to its instructions.
- B. If the animal is alive, and judged likely to survive on its own, it will be released at the point of capture.
- C. In the case of protected nontargets whose survival may appear questionable, the Regional Supervisor and WS District Supervisor shall have mutually agreed upon which species will be turned in for rehabilitation and which species will be dispatched. If the animal is to be turned in for rehabilitation, it shall be presented to the affected Regional Office as soon as possible.
- D. In the case of accidentally captured black bears or mountain lions (e.g., captured during wolf trapping efforts), immobilization drugs will not be used to facilitate release of a nontarget bear or lion, anytime during or up to 30 days prior to allowable sport harvest seasons, unless the animal can be ear-tagged or otherwise identified to notify hunters that the animal's flesh should not be consumed without first notifying the nearest Department

Regional office. If a nontarget bear or lion cannot be released without drugs (anytime during or up to 30 days prior to allowable sport harvest seasons), and if no means of identifying the animal are available to address concerns about drug withdrawal times, or if drugs or trained personnel are unavailable to release the animal, it is mutually understood that a nontarget bear or lion may have to be killed. WS will provide prompt notification to the appropriate Department Regional office of any lion or bear released with use of immobilizing drugs.

- E. All accidental captures, dead and alive, shall be reported in the annual report.
- F. To reduce the likelihood of nontarget take of wolves during WS coyote damage control operations:
 - 1. WS will not use neck snares for coyote control in areas where wolves would likely be encountered unless they are break-away neck snares.
 - 2. M-44 devices will not be set for coyotes in occupied gray wolf range while still listed unless a thorough search of the area prior to use of M-44s indicate no recent wolf use; or once delisted if the total number of packs ever drops below 15.
 - 3. Any leg snares or foothold traps larger than size #3 set on dry land in occupied gray wolf range will be monitored at least daily and as early in the morning as is practical when catching a wolf is a distinct possibility.

SECTION 3 Migratory Birds

- A. Migratory Nongame Birds:
 - 1. Minor complaints involving one or several birds (e.g., woodpeckers damaging cabins or homes, robins damaging strawberries or fruit trees, crows damaging property or being a nuisance, etc.): Whichever agency receives the call will provide technical assistance. If removal of a bird or birds is deemed necessary, WS will provide assistance.
 - 2. Major complaints involving substantial numbers of birds (e.g., starlings at feedlots; crow roosts; large numbers of birds damaging fruit trees, etc.): WS has responsibility for all complaints.
 - 3. All complaints involving bird depredation at Federal and private fish hatcheries/farms: WS will respond.
 - 4. Complaints of damage caused by ravens, magpies, or other avian predators: WS will respond.

B. Locally-produced Ducks, Geese, and Sandhill Cranes:

1. Minor complaints involving less than 100 birds between May 1 and August 15, except on or adjacent to U.S. Fish and Wildlife Service (hereinafter USFWS) refuges, including islands in the Snake River owned by the USFWS and administered by the Deer Flat National Wildlife Refuge: The Department will respond.
2. Major complaints involving more than 100 birds between May 1 and August 15, and all complaints adjacent to USFWS refuges, including islands in the Snake River owned by the USFWS and administered by the Deer Flat National Wildlife Refuge: WS will respond.
3. All complaints between May 1 and August 15 involving geese on or immediately adjacent to Department-owned wildlife management areas or other important production areas where the Department's placement of man-made nest structures or other management efforts have encouraged goose populations to increase: The Department will respond.

C. Migrating or Wintering Ducks, Geese, and Sandhill Cranes:

1. WS will respond to all complaints between August 16 and April 30.

D. WS and the Department mutually agree to work cooperatively toward achievement of the goals and objectives outlined in the 1997 Management Plan for Reducing Sandhill Crane Crop Damage in Eastern Idaho, or the most current version of that plan.

SECTION 4
Threatened and Endangered Species

The parties mutually agree that depredations by threatened or endangered species shall be handled as follows:

A. Grizzly Bear:

1. The parties shall follow the procedures detailed in either the Guidelines for Determining Grizzly Bear Nuisance Status and for Controlling Nuisance Grizzly Bears in Northern Idaho and Washington (interagency guidelines developed in 1984, revised in 1989) or the Interagency Grizzly Bear Guidelines, (1986) (developed as an interagency effort initially in the Greater Yellowstone Area), whichever is appropriate, to determine nuisance status. The FWS oversees the recovery efforts of grizzly bears and must be contacted whenever depredations occur. Once delisted, the Department will be the primary manager.

Both parties shall consult and cooperate in any trapping efforts. The Department shall be responsible for trapping, immobilization, handling, and release of grizzly bears in circumstances other than livestock depredations; WS will be the lead in investigating depredations, and trapping bears in depredation situations. WS and the Department will work closely together during any livestock related grizzly bear incident.

2. Culvert traps shall be used unless mutually determined to be impractical.
3. If grizzly bear mortality limits for either Idaho or the Yellowstone Ecosystem have not been met, M-44s may be used in occupied grizzly bear habitat to capture coyotes if it is determined that grizzly bears are not using the area. If grizzly bear mortality limits have already been met or have been exceeded, M-44s will not be used in occupied grizzly bear habitat between March 1 and November 30. When grizzly bears are delisted, M-44 use will be similar to while they were listed. When WS wishes to use M-44s for coyotes in occupied habitat between March 1 and November 30, a thorough search of the area must first be conducted.

B. Gray Wolf (IDFG oversight under 10j rules):

1. The Department will promptly notify the WS District Supervisor of the affected District as soon as they receive any reports of suspected wolf depredations.
2. WS will contact the statewide wolf program coordinator or other designated decision maker regarding any confirmed wolf depredations and any control actions taken in response to such depredations. Typically, a control action will be determined by the decision maker prior to removing a wolf, except following a confirmed wolf depredation, the WS agent would be able to opportunistically remove wolves near the carcass before contact if such contact with the decision maker would likely cause the opportunity to be missed.
3. During the period of wolf recovery, and prior to delisting, authorities related to wolf control were relayed to the Department under the final Sec. 10(j) rule (January 6, 2005) and MOA with the Department of Interior (January 5, 2006) creating IDFG as the designated agent, thus these authorities supersede previous agreements among WS, USFWS, and the Department. Protocols consistent with this MOU are established that outline roles and responsibilities that will be followed when operating under the new 10(j) rule.
4. Under the new 10(j) rule and authorities granted to the State, as well as after wolves have been delisted, WS will continue to be responsible for responding to all complaints of wolf predation on livestock and/or any other domestic animals owned by complainants; for documenting whether such reports involve confirmed, probable, or possible wolf damage, or whether the damage was due to some other cause; and for implementing control measures in response to confirmed or probable wolf damage with authorization from the Department.

5. In situations where wolves are known to be in areas where livestock occur or are expected to occur during established grazing seasons, and where wolf predation might be expected, and only after consultation with the Department, wolves may be live-captured, radio-collared and released on site (by Department or WS personnel) to facilitate monitoring and future control actions if it turns out control becomes necessary.
 6. Use of nonlethal preventive measures to reduce the likelihood of wolf predation on livestock (e.g., use of herders, frightening devices, increased vigilance when wolves are known to be in the area, etc.) will be encouraged by WS and Department personnel.
- D. Gray Wolf (north of Interstate 90, endangered status, while under USFWS oversight or IDFG designated agent status under 10(a)(1)(A) permit):
1. The Department will promptly notify the WS District Supervisor of the affected District as soon as they receive any reports of suspected wolf depredations.
 2. WS will contact the statewide wolf program coordinator or other designated decision maker regarding any confirmed wolf depredations. IDFG decision maker must contact USFWS Spokane Area Office Supervisor or designee, to notify them of the situation and provide recommendations for action. Typically, non lethal techniques must be considered prior to any lethal control. Any control action will be determined by USFWS in conjunction with IDFG decision maker prior to removing a wolf.
 3. Under designated agent authorities granted to the State under the 10(a)(1)(A) permit as well as after wolves have been delisted, WS will continue to be responsible for responding to all complaints of wolf predation on livestock and/or any other domestic animals owned by complainants; for documenting whether such reports involve confirmed, probable, or possible wolf damage, or whether the damage was due to some other cause; and for implementing control measures in response to confirmed or probable wolf damage with authorization from the Department.
 4. In situations where wolves are known to be in areas where livestock occur or are expected to occur during established grazing seasons, and where wolf predation might be expected, and only after consultation with the Department, wolves may be live-captured, radio-collared and released on site (by Department or WS personnel) to facilitate monitoring and future control actions if it turns out control becomes necessary.
 5. Use of nonlethal preventive measures to reduce the likelihood of wolf predation on livestock (e.g., use of herders, frightening devices, increased vigilance when wolves are known to be in the area, etc.) will be encouraged by WS and Department personnel.

SECTION 5 Game Animals

The IDFG Commission has listed wolves as a game animal. However, until wolves are delisted, they will be managed as indicated above as a threatened or endangered species or under specific allowances as determined through the new rule under Sec. 10(j) of the ESA. Once wolves are delisted they will be managed as follows during the 5-year post delisting monitoring period. Following that, this MOU can be amended. The parties mutually agree that depredation by bears, lions and wolves shall be handled as follows:

A. Black Bear and Mountain Lion:

1. WS has the responsibility for control of black bears and mountain lions involved in livestock depredations and any other agriculture-related depredation problems. The Department may handle these complaints at the request of WS if mutually agreed upon by the Regional Supervisor and WS District Supervisor.
2. For the purposes of property owners filing depredation claims with the Department, WS has the responsibility to (a) investigate all suspected black bear and mountain lion depredation payment claims involving domestic sheep, cattle, apiaries, and berries as soon as possible but within 72 hours of the time it receives damage reports, and (b) provide a copy of the investigative report to the resource owner, for subsequent submission to the Department when seeking compensation under Idaho Code 36-1109.
3. To facilitate timely and effective control and to facilitate confirmation of damage as required under *Idaho Code* 36-1109, any reports of black bear or mountain lion depredation received by the Department will be promptly relayed to the appropriate WS District Supervisor or local WS representative.
4. When black bears or mountain lions are involved in depredations during the legally-established sport hunting seasons for that area, WS and the Department will try to facilitate hunter harvest of specific depredating animals whenever practical.
5. Because the Department is required to pay compensation for black bear and mountain lion damage to livestock, and relocation of a depredating black bear or mountain lion could result in future additional depredations, black bears and mountain lions involved in killing livestock will be dispatched in a humane manner.

In those rare situations where the offending animal is a female black bear accompanied by young of the year:

- a. The female will be dispatched.
- b. If practical, the young will be captured and relocated if it is likely that they will survive on their own.
- c. The young will be captured and turned over to a wildlife rehabilitator, if practical, and if it is unlikely that they will survive on their own.
- d. In those situations when it is not practical to relocate them or turn them over to a rehabilitator, the young will be dispatched.

In those rare situations where the offending animal is a female mountain lion accompanied by young of the year:

- e. The female will be dispatched.
 - f. If the young weigh less than about 50 pounds:
 - 1. They will be captured and turned over to a zoo, if practical.
 - 2. In those situations when it is not practical to capture them and turn them over to a zoo, the young will be dispatched.
 - g. If the young weigh more than about 50 pounds:
 - 1. They will be captured and relocated into suitable habitat, if practical.
 - 2. In those situations when it is not practical to relocate them, the young will be dispatched.
6. The Department has the responsibility for controlling black bears and mountain lions in nuisance and human safety situations. WS may handle such complaints at the request of the Department if mutually agreed upon by the Regional Supervisor and WS District Supervisor.
 7. In those occasional cases involving black bear or mountain lion damage to nonlivestock resources outside of legally-established sport hunting seasons, WS and the Department will ordinarily use nonlethal methods (e.g., live-trapping and relocation, electric fencing, or harassment with trailing hounds) if deemed practical and effective. In chronic or historic damage situations (e.g., repeated instances of bear damage to beehives in the same area despite adequate effort by the operator to prevent problems), lethal control will ordinarily be employed to most effectively resolve these types of problems. If these types of damage situations also involve concerns for human safety (e.g., a mountain lion killing a pet at someone's residence), specific circumstances will be considered on a case-by-case basis in determining whether lethal or nonlethal methods are most appropriate.
 8. Any relocation of black bears or mountain lions will be coordinated by the Department, in consultation with the appropriate land management agencies and land users, as required under *Idaho Code* 36-1109.

9. Any leg snares used during black bear or mountain lion control efforts in classified grizzly bear habitat must be sufficient to hold any grizzly bear that may be inadvertently captured. WS will use culvert traps in classified grizzly bear habitat unless determined to be impractical.
10. Any black bear or mountain lion killed by WS or the Department must be reported to a Department Regional Office by submitting a completed Big Game Mortality Report within 14 days of the date of the kill. The complete skull or a complete premolar tooth must accompany the report. If pelts are salvageable, and if salvage of the pelt is deemed cost-effective, carcasses should be skinned and the pelt submitted along with the completed Big Game Mortality Report. Where practical, the meat from any black bear killed in a depredation situation should be salvaged and handled according to Department guidelines.

B. Wolves:

1. WS will continue to be responsible for responding to all complaints of wolf predation on livestock and/or any other domestic animals owned by complainants; for documenting whether such reports involve confirmed, probable, or possible wolf damage, or whether the damage was due to some other cause; and for implementing control measures in response to confirmed or probable wolf damage in coordination with the IDFG wolf coordinator or other designated decision-maker. After delisting, there will ordinarily be no relocation of any depredating wolves except on rare occasions. The standard response to confirmed wolf depredation would be incremental lethal removal of wolves from the problem area until depredations have been resolved. Ordinarily, the only exception to this general guidance would be if the total number of wolf packs in the state is 15 or fewer, or those levels deemed adequate by the Department to provide sport harvest (see 2 below). At that time, preemptive actions including but not limited to aversive conditioning, fladry, rag boxes, and other non-lethal techniques may be implemented.
2. When wolves are involved in depredations during a legally-established sport hunting seasons for that area, WS and the Department will try to facilitate hunter harvest of specific depredating animals whenever practical.
3. In those rare cases involving wolf damage to non-livestock resources outside of legally established sport hunting seasons, or low level human safety concerns such as wolves approaching residences or other anthropocentric areas, or in danger of becoming habituated to humans, WS and the Department will ordinarily use nonlethal methods (e.g., live-trapping and relocation, or harassment with rubber bullets and cracker shells) if deemed practical and effective. If these types of damage situations also involve moderate or higher levels of concern for human safety (e.g., a wolf killing a pet at someone's residence, wolves in back yard and not afraid of humans), specific circumstances will be considered on a case-by-case basis in determining whether lethal or nonlethal methods are most appropriate.

4. When the Department determines that specific wolf behaviors appear to be overly aggressive or determined to be a human safety concern, then lethal removal will be conducted. The Department has the responsibility for wolves in nuisance and human safety situations. WS may handle such complaints at the request of the Department if mutually agreed upon by the Regional Supervisor and WS District Supervisor.
 5. Any wolf killed by WS or the Department must be reported to the wolf program coordinator or a Department Regional Office by submitting a completed Big Game Mortality Report within 14 days of the date of the kill. The complete skull should accompany the report. If pelts are salvageable, and if salvage of the pelt is deemed cost-effective, carcasses should be skinned and the pelt submitted along with the completed Big Game Mortality Report.
- C. Other Big Game Animals: Depredations by all other big game animals (mule deer, white-tailed deer, elk, moose, pronghorn antelope, Rocky Mountain bighorn sheep, California bighorn sheep, and mountain goat) will be the responsibility of the Department.
- D. Upland game birds and upland game mammals (cottontail rabbits): The Department will be responsible for all complaints.

SECTION 6 Furbearers

The parties mutually agree that depredations by the following protected furbearers shall be handled as follows:

- A. Red Fox and Bobcat:
1. WS will respond to complaints of red fox and bobcat predation on livestock and poultry and shall periodically notify the Regional Supervisor of the affected region of areas of suspected depredations.
 2. If specifically requested by the Department, a completed Big Game Mortality Report form, along with the lower jaw or skull of any bobcat killed, must be submitted to the appropriate Department Regional Office within 14 days of the date of the kill.
 3. If fur prices are such that salvage of furs is deemed cost-effective, red fox and bobcat carcasses should be skinned and the pelts turned over to the appropriate Departmental Regional Office or disposed of according to its instructions.

B. Raccoon and Badger:

1. The Department and WS will both provide technical assistance to members of the public experiencing property damage caused by raccoons. This will ordinarily consist of providing advice or recommendations on how to deal with the problem, and/or involve the loan of cage traps to capture raccoons.
2. WS will respond to complaints of badgers causing damage to property or agricultural resources.

C. Beaver:

1. The Department has the responsibility for controlling beaver that damage property or interfere with the delivery of irrigation water.
2. The Department will (a) offer first opportunity to licensed trappers to remove offending beaver during the trapping season for fur harvest when pelts are of value; and (b) if the season is closed, issue depredation permits to landowners which authorize them to remove the beaver or have licensed trappers remove the beaver. The Department will remove beaver if no other options for beaver removal are feasible. The Department may remove beaver dams in those rare situations when deemed necessary and appropriate and no other means of removing the dams are available.
3. If WS receives requests for assistance with beaver damage problems during the legally established fur trapping season, WS will coordinate with the appropriate Departmental Regional office to try and facilitate a response by licensed fur trappers, whenever practical. WS will respond to requests for assistance with beaver damage problems as time and work schedules allow if licensed trappers cannot assist, or if the situation demands more immediate attention. WS will provide technical assistance on how landowners can deal with beaver problems themselves, and/or will remove beaver and their dams, when requested to do so, on a cost-sharing basis with property owners.
4. Removal of beaver dams in some cases may require issuance of a permit by the Corps of Engineers under Section 404 of the Clean Water Act. The Corps has determined (through Branch Guidance Letter 96-01, dated September 16, 1996) that removal of beaver dams in the following circumstances will ordinarily not require issuance of a permit:
 - a. Removal of recently constructed beaver dams (less than 1 year old).
 - b. Removal of beaver dams located on man-made irrigation delivery and return canals constructed in uplands.

- c. Removal of beaver dams located on natural waterways in the immediate vicinity (generally within 100 feet) of an authorized irrigation diversion structure which are adversely affecting the operation of the structure.

Removal of beaver dams in any circumstances not covered above may require issuance of a permit, and the responding WS or Departmental representative should direct the complainant to seek advice from the local U.S. Army Corps of Engineers Office.

5. WS may relocate live beaver to other sites on the immediate property owned by the complainant if the owner requests WS to do so and there is little probability that these relocated beaver will create future depredation problems; the Department will provide WS with a list of potential release sites off the immediate property where vacant habitat exists and where WS may release depredating beaver if landowners request them.

D. River Otter:

1. The Department has the responsibility for controlling river otters that damage property.
2. WS will respond to requests for assistance with river otter damage problems as time and work schedules allow and will provide technical assistance on how landowners can deal with river otter problems themselves. WS will also remove river otters when requested to do so, on a cost-sharing basis with property owners.
3. When practical, offending river otters shall be live-trapped and relocated according to Regional Supervisor instructions.
4. Any river otter killed by WS or the Department must be reported to a Department Regional Office within 14 days of the date of the kill.
5. Carcasses may be turned in whole.

SECTION 7
Predators and Unprotected Wildlife

The parties mutually agree that complaints of damage caused by predators (*Idaho Code 36-201*) and unprotected wildlife will ordinarily be handled as follows:

- A. Coyotes, Jackrabbits, Starlings, English Sparrows, Pigeons, Marmots, Porcupines, Ground Squirrels, and Other Field Rodents:

WS has responsibility for all complaints.

- B. Skunks, Weasels, and Fox Squirrels:

Technical assistance will be provided by whichever agency receives the request for assistance.

**SECTION 8
Flying Notification**

WS agrees that it will notify the Regional Supervisor of any affected region of its flight schedules. The parties mutually agree that in severe winter situations they will consult and cooperate to identify flights that may be of concern for wintering big game species, and take necessary steps to reduce such conflicts.

**SECTION 9
Term of Agreement**

This agreement shall become effective upon execution by both parties and shall continue until terminated in accordance with Section 10. This Agreement may be amended at any time by mutual agreement of the parties in writing.

**SECTION 10
Termination**

- A. Either party hereto may terminate this Agreement at any time by giving the other party thirty (30) days written notice of such termination.
- B. Any such termination notice shall be served on the affected party as follows:

1. Director
Idaho Department of Fish and Game
600 South Walnut
PO Box 25
Boise, Idaho 83707

2. Chairman
Idaho State Animal Damage Control Board
PO Box 2596
Boise, Idaho 83705

WHEREFORE, the parties have executed this agreement on the date following their signatures.

s/

Steven M. Huffaker
Director
Idaho Department of Fish and Game

s/

Barry Duelke, DVM
Chairman
Idaho State Animal Damage Control Board

Dated 5-22-06.

Dated 5-11-06.

LIVESTOCK PROTOCOL DELISTED (March 28, 2008)

The following protocol is to be used for wolf control in livestock depredations statewide.

The Department is responsible for decisions for wolf control in livestock depredation situations confirmed by trained WS agent or trained IDFG personnel. Under normal operating procedures, the USDA APHIS Wildlife Services will be responsible for initial investigation of a livestock depredation complaint, and the WS agent will be responsible for contacting IDFG decision makers immediately or as soon as possible upon confirmation of a depredation by wolves. The following protocol will allow for a systematic procedure applicable under most situations statewide.

If the number of wolf packs in Idaho is between 15 and 20, further restrictive protocols may be implemented.

- 1) Producer contacts WS and wolf has been confirmed as having killed livestock or other domestic animals by WS or by trained IDFG personnel if WS is unavailable. Necropsy performed, depredation documented per WS form, and photographs of necropsy and struggle site taken for report.
- 2) WS (or IDFG) Agent must contact their supervisor and decision makers (IDFG) as soon as possible after initial confirmation of damage (and initial control actions, if applicable) with the best information possible. Decision maker and WS should contact wolf biologists responsible for the area to get background on wolves if possible.
- 3) If confirmed killed by wolves, however, WS agent may place traps in the ground immediately and/or shoot wolves opportunistically if seen at or near the confirmed depredation without first having to contact IDFG, if making such contact would likely cause the opportunity to be missed.
- 4) The following control measures will be considered by the decision maker and are acceptable for problem wolves (see definition below):
 - a. Non-lethal measures could be employed if any are applicable and producer is amenable.
 - b. A new single wolf or pair of wolves in an area with livestock use may be killed unless other non-lethal options are acceptable (as determined by decision maker in concert with livestock operator and WS agent).
 - c. WS may opt to place radio-collars on new packs involved in depredations to facilitate more efficient control measures. Control measures will be incremental until depredations cease.
 - d. An old, established pack of wolves with little or no history of depredation may be incrementally removed until depredations cease.
 - e. An old, established pack of wolves with a serious history of depredation will be incrementally removed with continued removal if depredations persist until the whole pack is removed. Several members of the pack may be removed

initially, especially if they are captured returning to carcass, or if seen near or feeding on carcass.

- f. Each individual case will be reviewed for applicability under the above advice. As populations expand into high conflict areas, more aggressive actions may be necessary.
- g. If a legal take season is open, hunters should be contacted when feasible to deal with the depredation. If no season is open, a depredation hunt should be considered.

Under state law problem wolves were defined as those that have attacked or molested livestock. In order to further clarify take orders and maintain consistency with removal criteria, take orders and kill permits will be valid for 45 days. Extending beyond 45 days may be allowed under certain circumstances if wolves are still in the area causing conflict, and if take was not successful with a combination of kill permit, agency actions, and hunting. If the mortality quota for the area has been reached, or if the number of breeding pairs is below 20, then alternatives to lethal removal will be considered.

Persistent depredations should result in control actions that persist until the depredations cease.

Under state law and policy, shoot-on-sight (kill) permits can be issued (by Regional Supervisors, Large Carnivore Manager, or Director) to livestock producers who: 1) requests one within 30 days of a verified wolf depredation loss, 2) IDFG has authorized agency lethal removal of problem wolves from the same allotment 3) have problem wolves routinely present on that allotment and pose a significant risk to livestock. Authorization is for 45 days or less. Authorization can be made by telephone and followed up with a permit and signature. The wolf remains the property of the state and under this permit, permittees must turn over the carcass to IDFG within 48 hours.

Calls:

- 1) ***Livestock producer should call WS agent first when depredation by wolves is suspected.*** Producer can call anyone at IDFG, USFWS, or NP tribe and we must call WS. If WS is not available, and urgency is identified, trained IDFG personnel will respond to assist if available.
- 2) WS (or IDFG) confirms kill by wolf, then contacts a decision maker. Ordinarily, the decision maker will be contacted prior to removing a wolf, except that following confirmation of wolf damage, a WS representative would be able to opportunistically remove wolves at or near the depredation site before such contact, if making such contact would likely cause the opportunity to be missed. When contacting IDFG, let person answering the phone know that this is a livestock depredation and you need to speak with one of the following:

a. Regional Supervisor for region of depredation

- i. Panhandle - Chip Corsi O: 769-1414 H: 687-3619 C: 661-6692
- ii. Clearwater - Dave Cadwallader O: 799-5010 H: 459-4942
- iii. Southwest - Scott Reinecker O: 465-8465 H: 888-8465 C: 850-2206

- iv. Magic Valley- Dave Parrish O: 324-4359 H: 324-5050 C: 539-3937
 - v. Southeast - Mark Gamblin O: 232-4703 H:232-
 - vi. Upper Snake - Steve Schmidt O: 525-7290 H:524-0657
 - vii. Salmon - Jim Lukens O: 756-2271 H: 756-6602
- b. Steve Nadeau (O: 334-2920; H: 362-1533; C: 867-9855)
 - c. Brad Compton (O: 334-2920; H: 895-0663; C: 841-2374)
 - d. Jim Unsworth (O: 334-2920; H: 562-0503; C: 863-7091)

3) When attempting to contact IDFG after confirmation of wolf damage and prior to a control action, if repeated attempts (three or more times over the course of an hour) to contact a decision maker have failed, then #3 above is allowed. Placing a radio collar and releasing is also allowed if the WS or IDFG agent believes that to be the best alternative for the circumstances. Efforts to contact a decision maker will continue until contact is made even if control action has taken place.

Biologists to contact for wolf information and pack background:

Statewide: **Steve Nadeau** O: 334-2920; H: 362-1533; C: 867-9855
 Panhandle: Dave Spicer o: 245-5023 H:245-2282 C: 869-8506
 Clearwater/McCall- NPT 634-1061 Curt Mack: H: 634-0560 C:634-9556
 Southwest/Magic Valley - **Michael Lucid** O: 465-8465 C: 830-1451
 Magic Valley - Randy Smith C: 539-4025; Regan Berkley C: 539-4425
 Southeast - Martha Wackenhut O: 232-4703 H: 782-0445 C: 221-4504
 Upper Snake - Daryl Meints O: 525-7290 H: 552-1007 C:390-0601
 Salmon/Upper Snake - **Jason Husseman** O: 756-2271 C: 830-1452

(Nadeau, Husseman, and Lucid can be called to access data statewide)

When a Regional Supervisor makes a decision to remove a wolf, a memo describing the incident and decision will be forwarded to Large Carnivore Manager within 24 hours of the decision. Once a wolf has been removed by WS or IDFG, a report describing the incident will be forwarded to Large Carnivore Manager within 14 days. Big Game Mortality Report Forms will be revised to include wolves, and will be used to document mortality. Information on sex, est. age, color, tag #, etc. must be included.

These steps are meant to create an orderly transition from federal to state management.

EXHIBIT 18

Wolf Conservation And Management In Idaho:
Progress Report 2007

EXHIBIT 18

**WOLF CONSERVATION AND MANAGEMENT
IN IDAHO
PROGRESS REPORT 2007**



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February 2008



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EXECUTIVE SUMMARY

In January 2005, the U.S. Fish and Wildlife Service (USFWS) published and adopted new regulations (10(j) Rule) governing wolf management within the Nonessential Experimental Population Areas of Idaho south of Interstate Highway 90 (Endangered and Threatened Wildlife and Plants; Regulation for Nonessential Experimental Populations of the Western Distinct Population Segment of the Gray Wolf [50 CFR Part 17.84]). The new 10(j) Rule allowed states, with USFWS-approved wolf management plans, to petition the Secretary of Interior for certain wolf management authorities as an interim measure to delisting. In January 2006, the Secretary of Interior and the Governor of Idaho signed a Memorandum of Agreement (MOA), which transferred most wolf management responsibilities to the State of Idaho. The Idaho Department of Fish and Game (IDFG) is the primary state agency responsible for carrying out wolf management activities in Idaho. In April 2005, the Governor of Idaho and the Nez Perce Tribe (NPT) signed an MOA that outlined responsibilities between the State of Idaho and the NPT in regards to wolf conservation and management. The USFWS published a draft delisting rule in February 2007 and a final is scheduled for February 2008. This annual progress report is a cooperative effort between the IDFG and the NPT with contributions from U. S. Department of Agriculture Wildlife Services (WS) summarizing wolf activity and related management in Idaho during 2007.

During 2007, biologists documented 83 resident wolf packs in Idaho and all of those remained by the end of the year. A minimum of 489 wolves was observed, and the minimum population was estimated at 732 wolves (Appendix A). In addition, there were 13 documented border packs counted for Montana and Wyoming that established territories straddling the Idaho state boundary and likely spent some time in Idaho. Of the 59 packs known to have reproduced, 43 packs qualified as breeding pairs by the end of the year. These 59 reproductive packs produced a minimum 200 pups.

In Idaho, wolf packs ranged from the Canadian border south to Interstate Highway 84, and from the Oregon border east to the Montana and Wyoming borders. Dispersing wolves were occasionally reported in previously unoccupied areas. Seventeen previously unknown packs were documented for the first time during 2007. Three hundred eighty-two wolf observations were reported on IDFG's online website report form during 2007.

Seventy-eight wolves were confirmed to have died in Idaho in 2007. Of known mortalities, agency control and legal landowner take in response to wolf-livestock depredation accounted for 50 deaths, other human causes (including illegal take) 18 deaths, 8 unknown causes, and 2 wolves died of natural causes.

During the 2007 calendar year, 73 cattle, 185 sheep, and 14 dogs were classified by WS as confirmed or probable kills by wolves.

ACKNOWLEDGEMENTS

Wolf management in Idaho is a cooperative effort between the State of Idaho, NPT, WS, and the USFWS. The Governor's Office of Species Conservation directors Jim Caswell and Nate Fisher, and especially program advisor Jeff Allen provided insight, assistance, and oversight. The NPT's Executive Committee and Wildlife Program Director Keith Lawrence provided support and input. Mark Collinge, George Graves, Todd Grimm, Rick Williamson, and other WS field personnel helped resolve wolf depredations on livestock. Ed Bangs, Jeff Foss, Steve Duke, Robert Romero, Scott Bragonier, Scott Kabasa, and Scott Winkler with the USFWS provided support and assistance in wolf management responsibilities. Jim Unsworth and Brad Compton provided support and input and numerous strategy sessions along with making some wolf control calls. We would also like to thank all the Outfitters and Guides for their information and assistance in the backcountry.

We would like to thank Lauri Hanauska-Brown and Martha Wackenhut for assuming additional regional responsibilities. Paul Frame and Carter Niemeyer worked as seasonal wolf biologists. Jonathan Ball, Nate Borg, Kari Holder, Laura Robinson, and Josh Vale worked as seasonal wildlife technicians. IDFG research employees Mark Hurley, Jeff Lonneker, Cody McKey, Julie Mulholland, George Pauley, Craig White, Mark Hurley, and Pete Zager provided collaborative assistance both in the field and the office. Cindi Hillemeier and Lynne Stone worked as IDFG volunteers. U.S. Forest Service employees Joe Hudson, Chad Benson, Dave Campbell, Suzanne Cable, Carol Hennesey, and Deb Gale provided administrative support to the Selway Monitoring Project. Thanks to Mike Keckler, Sue Nass, Ed Mitchell, Niels Nokkentved, Eric Stansbury and Linn French from the communications bureau; and Jon Heggen, enforcement bureau chief, for oversight of field enforcement operations. Mark Bowman, Crystal Christensen, Jay Crenshaw, Jim Derig, Mark Drew, Nadine Hergenrider, Clay Hickey, Mark Hill, Mike Scott, Josh Stanley, Bret Stansberry, and Connie Thelander provided additional field and administrative assistance.

Clarence Binninger, NPT Wolf Recovery Program veterinarian, continues to assist with wolf capture efforts. We appreciate the field assistance of biologists Isaac Babcock and Tyler Hollow, as well as volunteers Katrina Chandler and Bjornen DuPont. Thanks are also extended to Mary Allen (retired), NPT Wolf Recovery Project; Dave Renwald, Bureau of Indian Affairs; Jim and Holly Akenson, University of Idaho Taylor Ranch; Montana Fish, Wildlife and Parks wolf staff; Dr. Mike Mitchell, David Ausband and their field crews (Ryan Kalinowski, Melinda Conners, Jeff Joyce, Neil Carter, Sean Howard, Brynn Nelson, Shannon Longoria, and Adam Fahnestock), University of Montana Cooperative Wildlife Research Unit; Defenders of Wildlife; Joan Ritzen, Alberta Sustainable Resource Development; Barbara and Heinz Sipple; and Mr. Carmen Williams.

Cover photo shot by Laura Robinson during winter capture of alpha female B109 of the Warm Springs pack.

We especially recognize Mike Dorris, Rod Nielson, and John Ugland, McCall Aviation; Gene Mussler, Sawtooth Aviation; Jon Blakely and Jonas Doherty, AV Center; Sam Kocherhans and Joe Dory, WS; Pete Nelson, Middle Fork Aviation; Arnold Aviation; Steve Davidson, Selway Aviation; and Doug Gadwa, Joe Myers, and Brandon Startin, Inter-State Aviation for their expertise and flying safety.

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INTRODUCTION

In 1973, the gray wolf (*Canis lupus*) was listed under the Endangered Species Act (ESA) and protected as an endangered species in the continental U. S. The USFWS is mandated to recover federally listed species, including gray wolves. In the early 1980s, individual wolves, naturally dispersing from Canada, recolonized portions of northwest Montana near Glacier National Park. The first USFWS wolf recovery plan was developed through interagency cooperation in 1987 (USFWS 1987). The 1987 plan called for establishing 3 northern Rocky Mountain wolf recovery areas: northwest Montana (NWMT), the greater Yellowstone Area (GYA) predominantly in Wyoming, and central Idaho (CID). The plan called for natural recovery in northwestern Montana and reintroductions of wolves into Yellowstone National Park and central Idaho. Following the guidelines of the 1987 plan, the USFWS developed an Environmental Impact Statement (EIS) for the reintroduction of gray wolves into Yellowstone National Park and central Idaho (USFWS 1994). The EIS designated the GYA and CID recovery areas as Nonessential Experimental Population Areas and called for reintroductions of wolves as nonessential experimental populations, a lesser protective classification under section 10(j) of the ESA, to facilitate wolf management and conflict resolution. The Secretary of Interior approved the final EIS in 1994. In 1995 and 1996, 66 wolves were captured in Alberta and British Columbia, Canada, respectively; 31 of which were reintroduced into Yellowstone National Park and 35 into central Idaho.

Also in 1994, the USFWS developed a Final Rule, which provided management guidelines for recovering nonessential experimental wolf populations in the GYA and CID recovery areas. These guidelines differed somewhat from federal guidelines for fully endangered wolves in the NWMT recovery area. The state of Idaho contains portions of all 3 northern Rocky Mountain recovery areas (Figure 1). Wolves south of Interstate Highway 90 (I-90) are classified as nonessential experimental and are managed according to the provisions of the Final Rule. Wolves north of I-90 are classified and managed under a fully endangered ESA classification.

Efforts between the State of Idaho and the USFWS to develop a state wolf recovery plan were terminated in 1995 when the state legislature rejected a draft plan and prevented the IDFG from engaging in wolf recovery activities. In 1995, the NPT completed, and the USFWS approved, the “Wolf Recovery and Management Plan for Idaho”, providing the mechanism for the USFWS to enter into a Cooperative Agreement with the NPT to recover and manage wolves in the CID recovery area. Wildlife Services (WS) also became partners with the USFWS to assist in investigating depredations and implementing wolf control actions in response to wolf-livestock conflicts.

In March 2002, the Idaho Legislature accepted and passed the Idaho Wolf Conservation and Management Plan (http://fishandgame.idaho.gov/cms/wildlife/wolves/wolf_plan.pdf). In April 2003, the Legislature passed House Bill 294, allowing the state to participate in wolf management, and IDFG to assist the Governor’s Office of Species Conservation in implementing the State of Idaho’s Wolf Conservation and Management Plan as well as participate in wolf management with the USFWS and the NPT.

In 2003 and 2004, IDFG participated in wolf management in cooperation with other governments and agencies. The IDFG also started to develop a statewide program in preparation for overseeing wolf management in Idaho. Wolves were monitored and managed under cooperative agreements and work plans between cooperating governments and agencies.

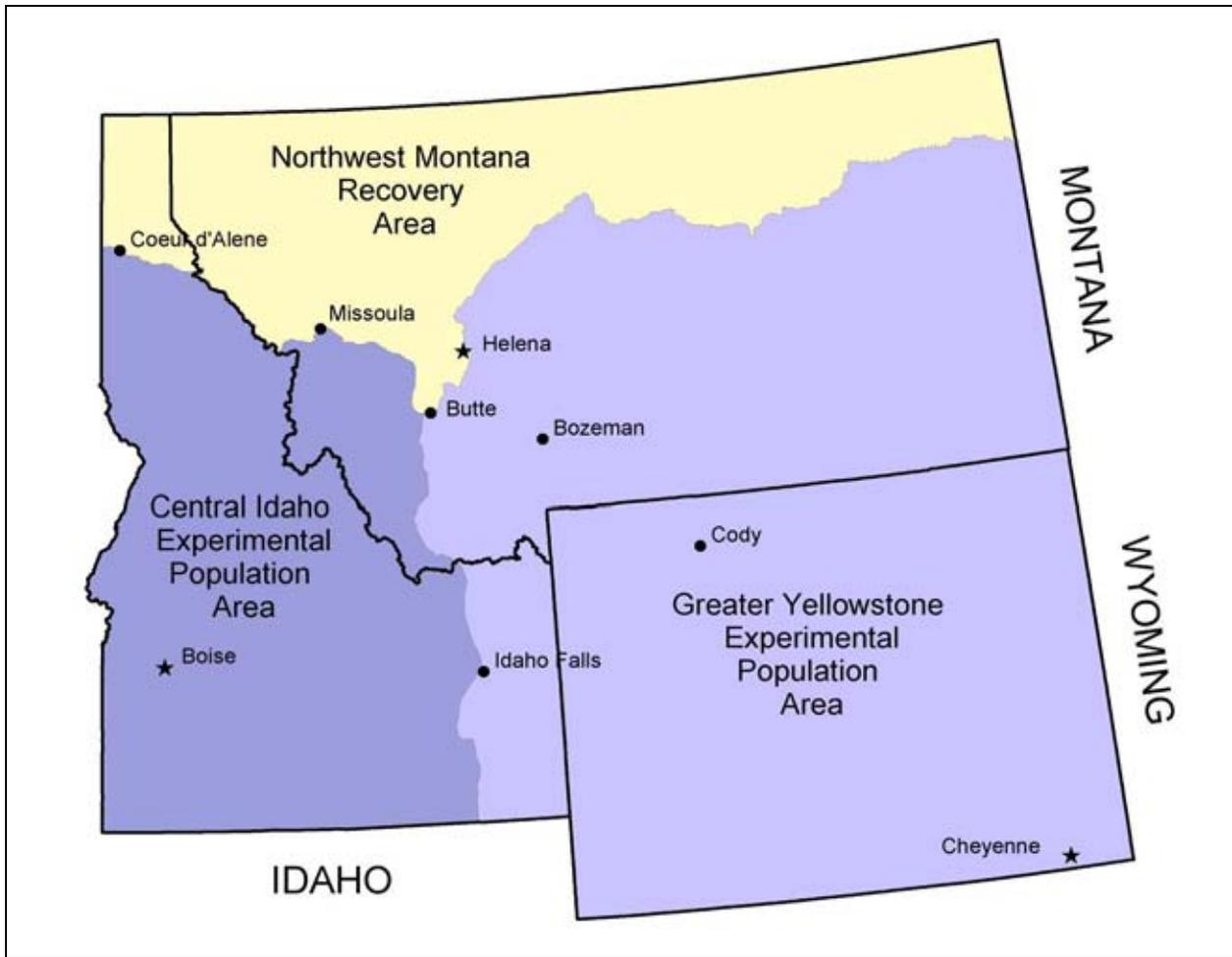


Figure 1. Recovery areas established by the U.S. Fish and Wildlife Service to restore gray wolf populations in the northern Rocky Mountains of Idaho, Montana, and Wyoming. Wolves are naturally recovering in the Northwest Montana Recovery Area, while wolves were reintroduced into the Central Idaho and Greater Yellowstone Experimental Population Areas.

The established northern Rocky Mountain population recovery goal of 30 breeding pairs of wolves well distributed throughout the 3 states of Idaho, Montana, and Wyoming for 3 consecutive years was achieved in December 2002 (USFWS et al. 2003). In 2003, the USFWS adopted regulations that reclassified, or down-listed, wolves from endangered to threatened in Idaho north of I-90; however, in early 2005, a federal court judge remanded these regulations. Consequently, wolves north of I-90 remained classified as fully endangered.

The ultimate goal of federal, state, and tribal governments is to recover and remove wolves from the protections of the ESA (delisting process). The USFWS initiated the delisting process when the northern Rocky Mountain wolf population met or exceeded established population goals, and the 3 states of Idaho, Montana, and Wyoming each had USFWS-approved wolf management plans and other legislation and regulations in place to ensure long-term conservation of wolves. By 2003, most federal delisting requirements had been met. Wolf population recovery goals were met in 2002 and the states of Idaho and Montana had USFWS-approved wolf management

plans and adequate state laws in place. Wyoming's wolf management plan, however, was not approved by the USFWS. In response, Wyoming sued the federal government requesting court approval of their plan. Consequently, delisting was delayed until Wyoming made USFWS-requested adjustments to its plan, which occurred in late 2007.

In response to this delay, in February 2005, the USFWS revised the Final Rule (10(j) Rule). The new 10(j) Rule (Endangered and Threatened Wildlife and Plants; Regulation for Nonessential Experimental Populations of the Western Distinct Population Segment of the Gray Wolf [50 CFR Part 17.84]) applies only within the Nonessential Experimental Population Areas for states with USFWS-approved wolf management plans; currently Idaho and Montana (Figure 2). The 10(j) Rule is an interim measure to provide Idaho and Montana with more local wolf management authorities until wolves can be delisted.

The 10(j) Rule allowed the states of Idaho and Montana to petition the Department of Interior to assume many day-to-day wolf management authorities. In January 2006, a MOA between the Secretary of Interior and the Governor of Idaho was signed that transferred most management authorities previously held by the USFWS to Idaho. The State of Idaho currently oversees daily management of wolves in Idaho and coordinates between agencies to fulfill obligations under the 10(j) Rule, the ESA, and the state wolf management plan. The USFWS developed a new 10j rule and filed it in the Federal Register in January 2008. It will take effect in February 2008. The primary changes in the rule allow: 1) the public to kill a wolf attacking their dog or livestock on public land, and 2) more flexibility for states or tribes to kill wolves that are impacting big game populations.

In May 2005, an MOA was signed between the NPT and State of Idaho that outlined wolf monitoring and management responsibilities shared between the 2 governments. Under the MOA, the NPT is responsible for monitoring wolves within IDFG Clearwater Region and McCall Subregion, while the State of Idaho is responsible for monitoring wolves across the rest of the state and management statewide.

In February 2007, the USFWS proposed a delisting rule that would provide 2 alternate tracks to delisting. If Wyoming's plan was made acceptable and court cases resolved, the 3 states would be delisted simultaneously. Alternatively, if Wyoming did not provide adequate regulatory mechanisms including an acceptable plan, the USFWS would delist wolves in Montana, Idaho and most of Wyoming, but leave them listed in northwest Wyoming surrounding Yellowstone and Grand Teton National Parks. Wyoming and USFWS agreed upon a final plan in late 2007 and delisting is proceeding with a posting date of February 28, 2008 anticipated. Litigation is also anticipated that may delay implementation of state plans.

In preparation for delisting, IDFG prepared a Wolf Population Management Plan which aims to stabilize the wolf population between 2005 and 2007 levels and is designed to manage conflicts between wolves and human interests. It also provides for wolf harvest opportunities and non-consumptive enjoyment of wolves. The final version of this plan is expected to be approved by the IDFG commission in March 2008.

This report fulfills annual USFWS requirements to summarize and report wolf status and management activities in Idaho. The goal of the State of Idaho, NPT, USFWS, and WS is to continue to maximize knowledge of wolves in Idaho while reducing conflicts and continuing toward eventual delisting of wolves in the northern Rocky Mountains.

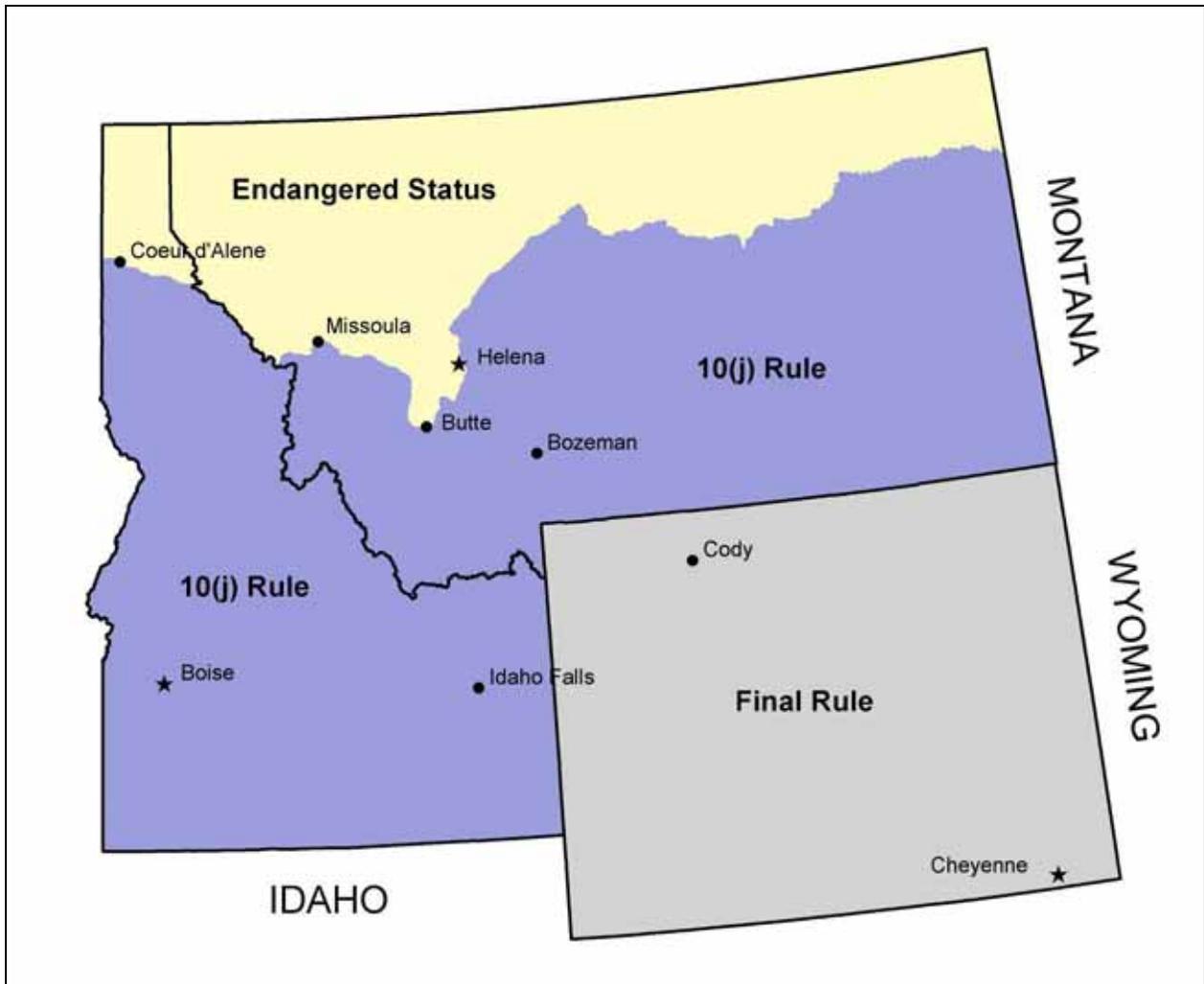


Figure 2. Management areas established by the U.S. Fish and Wildlife Service under the 10(j) Rule to restore gray wolf populations in the northern Rocky Mountains of Idaho, Montana, and Wyoming.

STATEWIDE SUMMARY

Previous progress reports by the NPT and the USFWS summarized wolf status within the CID recovery area including central Idaho and portions of southwestern Montana. However, this report summarizes the status of wolves and wolf management within the borders of the State of Idaho, including portions of all 3 northern Rocky Mountain recovery areas; endangered wolves in the NWMT recovery area north of I-90, and nonessential experimental wolves within Idaho portions of the CID and GYA recovery areas south of I-90.

Central Idaho, a vast, mountainous, and remote area, is one of the largest remaining undeveloped blocks of public land in the conterminous U. S. Central Idaho includes 3 contiguous Wilderness Areas, the Selway-Bitterroot, Frank Church River-of-No-Return, and Gospel Hump, encompassing almost 4 million acres (1.6 million ha), which represents the largest block of federally-designated Wilderness in the lower 48 states. Three major mountain chains and 2 large river systems create a very diverse landscape, ranging from sagebrush-covered flatlands in the

southern part of Idaho, to extremely rugged peaks in the central and northern parts. A moisture gradient also influences the habitats of both wolves and their prey, with wetter maritime climates in the north supporting western red cedar (*Thuja plicata*)-western hemlock (*Tsuga heterophylla*) vegetation types, grading into continental climates of Douglas-fir (*Pseudotsuga menziesii*) and Ponderosa pine (*Pinus ponderosa*) to the south. Elevations vary from 1,500 feet (457 m) to just over 12,000 feet (3,657 m). Annual precipitation varies from less than 8 inches (20 cm) at lower elevations to almost 100 inches (254 cm) at upper elevations.

Wolf Population Status

The Idaho wolf population has continued to expand in both numbers and packs since initial reintroductions in 1995 (Figures 3 and 4). By the end of 2007, 83 documented wolf packs remained extant in Idaho, including 17 newly documented packs, and a minimum of 489 wolves was observed or monitored by wolf program personnel. The minimum population estimate was 732 (Appendix A).

Distribution, Reproduction, and Population Growth

Wolves were well distributed in the state from the Canadian border, south to the Snake River Plain, and east to the Montana and Wyoming borders (Figure 5). Of the 83 documented packs during 2007, territories of all were predominantly on U.S. Forest Service (USFS) public lands.

Of 83 documented packs, a minimum of 59 produced litters and 43 qualified as breeding pairs (Table 1). A minimum of 200 wolf pups was documented in 2007. Wolf pup counts were conservative estimates because not all pups were observed from packs that were monitored, and some documented packs were not visited. Minimum documented litter sizes ranged from 1-8 pups. Average minimum litter size for those packs where counts were believed complete ($n = 35$) was 4.1 pups per litter. Ten new breeding pairs were documented and the reproductive status of 24 documented packs was either not verified or believed to be non-reproductive during 2007. Many areas typically visited to count pups were not available to field crews due to extensive forest fires and subsequent area closures this year.

The estimated wolf population increased 9% between 2006 ($n = 673$) and 2007 ($n = 732$) (Fig. 3). The social carrying capacity for wolves will likely be below the biological carrying capacity as wolves are managed in concert with other wildlife values, livestock concerns, and management objectives. Ultimately the citizens of Idaho, not habitat, will determine the number of wolves that will persist in the state.

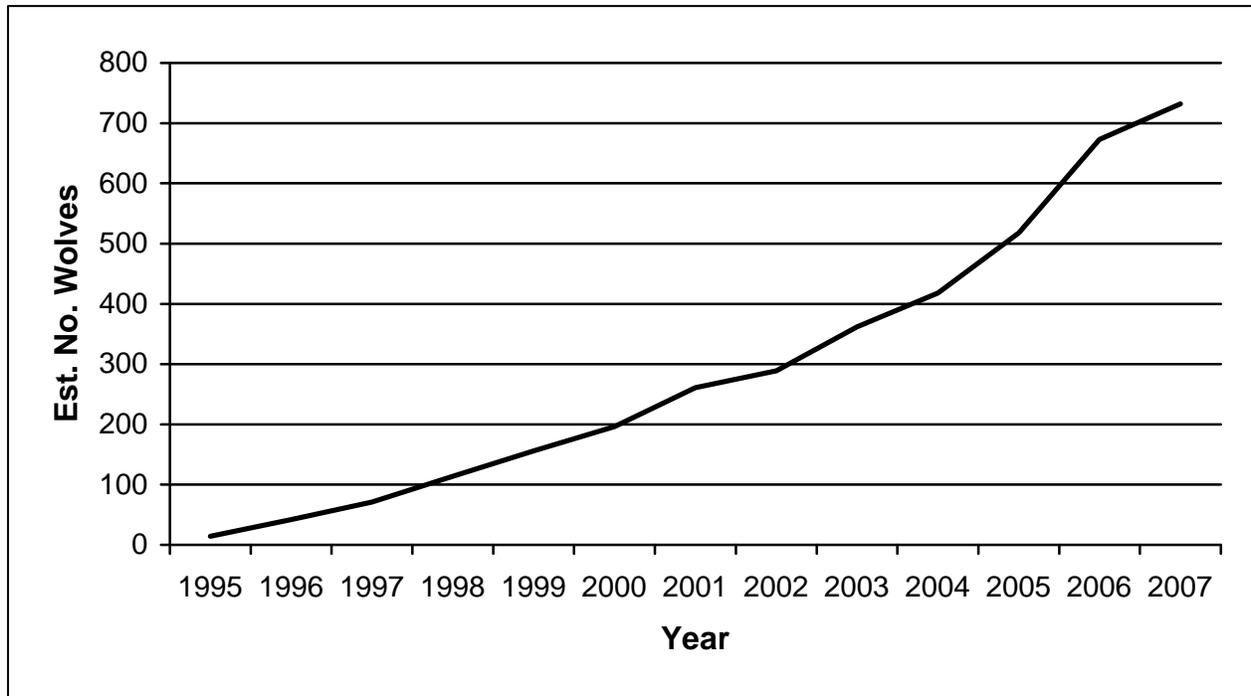


Figure 3. Estimated number of wolves in Idaho, 1995-2007. Annual numbers were based on best information available and were retroactively updated as new information became available.

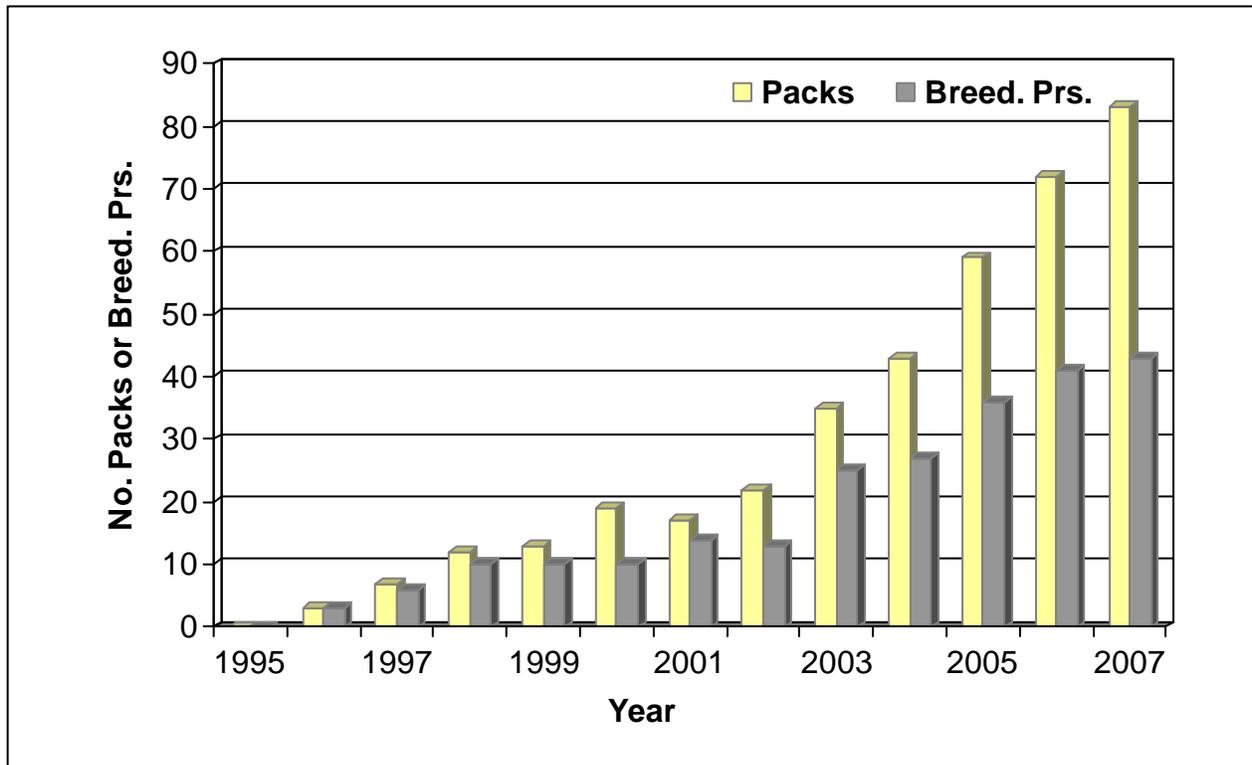


Figure 4. Number of documented wolf packs and breeding pairs in Idaho, 1995-2007. Annual numbers were based on best information available and were retroactively updated as new information became available.

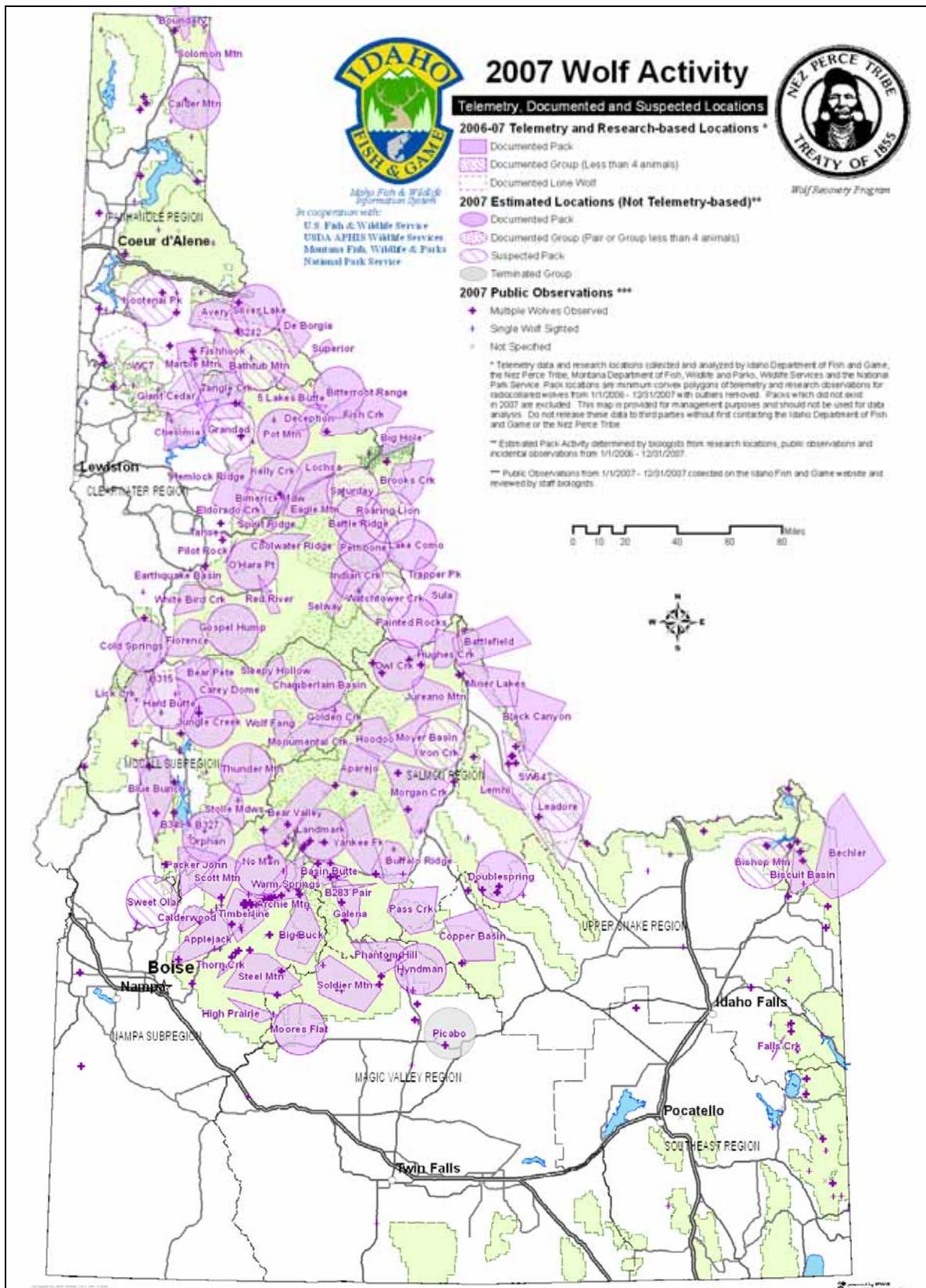


Figure 5. Distribution of documented and suspected wolf packs, other documented groups, and public wolf reports in Idaho, 2007.

Table 1. Number of wolves observed, documented packs, and other documented wolf groups; reproductive status; mortality; dispersal; monitoring status; and wolf-caused livestock depredations within Idaho Department of Fish and Game management regions, 2007.

	Management Region								Total
	Panhandle	Clearwater	McCall	Nampa	Magic Valley	Southeast	Upper Snake	Salmon	
Minimum number wolves detected ^a	37	148	84	85	9	0	10	116	489
Documented packs									
No. packs beginning of year ^b	8	26	14	13	4	0	3	15	83
No. packs removed ^b	0	0	0	0	0	0	0	0	0
No. packs end of year	8	26	14	13	4	0	3	15	83
Other documented groups ^c									
No. other groups beginning of year ^c	3	5	4	1	1	0	1	6	21
No. other groups removed ^c	0	0	0	0	1	0	0	1	2
No. other groups end of year	3	5	4	1	0	0	1	5	19
Reproductive status									
Minimum no. pups produced	5(1)	72	40	32	9(5)	0	3	39(1)	200(7)
No. reproductive packs	4	19	8	13	2	0	2	11	59
No. breeding pairs ^d	1	17	7	8	1	0	1	8	43
Documented mortalities									
Natural	0	2	0	0	0	0	0	0	2
Control ^e	0	3	10	5	12	0	8	12	50
Other human-caused ^f	3	5	2	1	0	0	1	6	18
Unknown	2	4	1	0	0	0	1	0	8
Known dispersal	2	0	0	2	0	0	0	1	5
Monitoring status									
Active radiocollars	7	30	14	13	3	0	3	16	86
No. wolf captures ^g	2	16	6	10	3	0	2	11	50
No. wolves missing ^h	1	2	0	2	1	0	0	5	11
Confirmed (probable) wolf-caused livestock losses									
Cattle	0	1(2)	8(2)	3	9(4)	0	14(5)	18(7)	53(20)
Sheep	0	0	60(3)	56(5)	41(7)	0	2	11	170(15)
Dogs	0	0	4(3)	(2)	3	0	1(1)	0	8(6)

^a Number of wolves observed by wolf program personnel in 2007. Sum of this column does not equate to number of wolves estimated to be present in the population.

^b Does not include documented packs removed due to lack of verified evidence for the preceding 2 years. Includes documented border packs tallied for Idaho.

^c Other documented wolf groups include suspected packs and known and suspected mated pairs; verified groups of wolves that do not meet the definition of a documented pack.

^d Breeding pairs are the measure of Federal and State wolf recovery and management goals. A breeding pair is defined as “an adult male and a female wolf that have produced at least 2 pups that survive until December 31 of the year of their birth...”.

^e Includes agency lethal control and legal take by landowners.

^f Includes all other human-related deaths.

^g Includes wolves captured for monitoring purposes during 2007. Most, but not all, were radiocollared.

^h Radiocollared wolves that became missing in 2007.

Mortality

Seventy-eight documented wolf mortalities were recorded in 2007 (Table 1). Sixty-eight of the confirmed mortalities were human caused, eight were unknown, and two were natural. Of 68 confirmed human-caused mortalities, 43 wolves were controlled for livestock depredations by WS, nine were illegally taken, nine were from other human causes, and seven were legally taken (shot by landowners while harassing or attacking livestock). These figures are underestimates of the true amount of overall mortality occurring within the wolf population, as documenting mortalities of uncollared wolves that are not controlled by agencies is difficult. Only 2 wolf deaths due to natural causes were recorded, another indication that mortality was underestimated, as more individuals likely succumbed to non human-related factors. There were no means to estimate deaths of pups that occurred prior to our visits.

More wolves ($n = 43$) were lethally controlled by WS in Idaho in 2007 than in any previous year. This mortality stemmed from removals in 15 packs: the Buffalo Ridge pack (2 wolves) near Clayton, Idaho; the Carey Dome pack (2 wolves) north of McCall; the Copper Basin pack (6 wolves) northwest of Mackay, Idaho; the Falls Creek pack (1 wolf); the Galena pack (1 wolf) near Stanley, Idaho; the Hard Butte pack (1 wolf) northeast of New Meadows, Idaho; the High Prairie pack (2 wolves) near Prairie, Idaho; the Jungle Creek pack (4 wolves) north of McCall, Idaho; the Jureano Mountain pack (3 wolves) west of Salmon, Idaho; the Lemhi pack (1 wolf) northwest of Leadore, Idaho; the Moores Flat pack (9 wolves) south of Pine, Idaho; the Morgan Creek pack (2 wolves) northwest of Challis, Idaho; the Packer John pack (1 wolf) east of Smith's Ferry, Idaho; the Pilot Rock pack (1 wolf) east of Clearwater, Idaho; and the Steel Mountain pack (2 wolves) near Trinity Lakes, Idaho. An additional 5 wolves were lethally removed from paired or unknown groups of wolves. Finally, 7 wolves were taken in the act of attacking livestock on private property by landowners under the 10(j) Rule.

Livestock and Dog Mortalities

During 2007, WS conducted 127 depredation investigations involving reported wolf-killed livestock and dogs. Of those, 86 (68%) involved confirmed wolf depredations, 21 (17%) involved probable wolf depredations, 17 (13%) were possible/unknown wolf depredations, and 3 (2%) were due to causes other than wolves. During the calendar year, WS reported 73 cattle, 185 sheep, and 14 dogs that were classified as confirmed or probable wolf kills (Table 1). Non-lethal techniques were used where appropriate to reduce wolf-livestock conflicts.

Law Enforcement

During 2007, USFWS Special Agents and IDFG Conservation Officers cooperatively investigated and reported 38 incidents of known or suspected wolf mortalities. Of the 38 incidents investigated, 9 were illegally killed, 8 were legally killed, 1 died of natural causes, 5 from other human causes, and the cause of death for 9 was unknown. For the remaining 6 incidents, either a carcass could not be found or the report or incident was not wolf-related. The number of investigations detailed here represents a minimum, as some cases were still pending or undisclosed for investigative purposes and not reported in this text.

Research

Agencies continued to coordinate and support scientific research assisting in long-term wolf conservation and management.

Statewide Elk and Mule Deer Ecology Study

During 2007, the IDFG continued its effort to measure the effects of wolf predation, habitat condition, and forage nutrition on elk and mule deer populations across Idaho. Goals were met to radiocollar adult female elk and mule deer, 6-month-old elk calves and deer fawns, and newborn elk calves and deer fawns. Action is on-going to meet research objectives which include 1) determine survival, cause-specific mortality, pregnancy rates, and body condition for radiocollared animals; 2) monitor wolf distribution and abundance within project areas; 3) develop habitat condition and trend maps for Idaho; and 4) manipulate predator populations in project areas and monitor ungulate population responses. This research is providing contemporary estimates of non-hunting mortality, survival, and productivity of elk and deer populations for determining appropriate harvest levels. Further, this research will help identify and evaluate specific predator and habitat management actions necessary to achieve ungulate population objectives.

Developing Monitoring Protocols for the Long-term Conservation and Management of Gray Wolves in Idaho

Gray wolf recovery efforts in the northern Rocky Mountains (Idaho, Montana, and Wyoming) have met with much success, as all 3 states support wolf populations. Monitoring and estimating recovering wolf populations in the northern Rocky Mountains has, to date, relied on time-intensive and expensive radiotelemetry techniques. Although this approach worked well in Idaho with initial small population sizes, these techniques are no longer appropriate or cost-effective given the current, much larger recovered population size and nearly statewide distribution.

The NPT, University of Montana Cooperative Wildlife Research Unit, USFWS, IDFG, and the University of Idaho are collaborating on a multi-year research effort to develop less intensive and more cost-effective approaches for estimating wolf population numbers across the varied landscapes of Idaho. Primary funding for this effort was provided by USFWS through their Tribal Wildlife Grants Program. A 3.5-year research effort will develop standardized wolf monitoring protocols for estimating wolf population parameters appropriate for meeting post-delisting monitoring and management needs, help implement wolf management plans, address wolf management goals and objectives, and ensure long-term conservation and management of the species.

Research began in earnest in 2007 by mailing a hunter survey to 2,000 hunters across 4 study areas in Idaho. In the summer of 2007, field technicians conducted scat surveys at 480 sites in the 4 study areas and collected over 250 genetic samples without the aid of radiotelemetry. Genetic samples are currently being analyzed by the University of Idaho. In addition, project researchers have invented an automated remote sensing tool that broadcasts a howl, records responses, and then shuts down until the next scheduled broadcast. This remote sensing tool can be particularly useful for detecting wolves in roadless areas and will be tested on wolf packs in summer 2008. Data obtained from each of these methods are designed to be incorporated into a

statistical model (occupancy model) that will provide the framework for statewide population monitoring. Initial results from an occupancy model demonstrated promise for using this model to estimate wolf pack abundance. In part, due to these encouraging results, Montana Fish, Wildlife and Parks (MTFWP) is funding a graduate study to apply a similar occupancy model approach to use for wolf population monitoring in Montana.

Standardized monitoring protocols will be important in satisfying the USFWS' 5-year post-delisting monitoring requirements and will be crucial to ensure sustainability of the population through effective post-delisting conservation and management of wolves. Our results should be useful to other states developing monitoring protocols for wolves.

Outreach

Program personnel presented 46 information and education programs to a minimum of 1,876 people. Audiences included school students, agency personnel, livestock associations, community groups, sportsmen and outfitters, and legislators. In addition to organized presentations, program personnel talked to numerous members of the public via telephone, email, and in person. Also, news articles were often released by IDFG summarizing wolf-related livestock mortalities, as well as wolf mortalities and other noteworthy items about wolves on a weekly basis. Program personnel talked with reporters from across Idaho and the nation regularly. Wolves continued to be an interesting topic for the public and television, radio, and print media contacted the program leaders often to obtain wolf information and agency perspective. Thus, thousands more people were contacted regularly by program personnel about wolves through radio, television, and print media.

The IDFG online wolf reporting system provided an opportunity for the public and professionals to record wolf observations in Idaho. During 2007, 382 wolf observations were reported on the web site. The online reporting system is a tool which assists biologists in identifying areas of possible wolf activity and allows the public a means to communicate wolf concerns to the appropriate agency.

The Wolf Population Management Plan was submitted for public comment in December. At least 1 open house was held in each IDFG administrative region during November and December 2007, ten in all; 452 citizens listened to presentations and provided input on the plan. The public comment period that ended 31 December 2007 drew 1,287 comments from groups and individuals which were analyzed for content and opinion.

REGIONAL SUMMARIES

Panhandle Region

Wolves found north of I-90 in this region are part of the NWMT Recovery Area and are classified as endangered. Wolves south of I-90 along the southern boundary of this region are within the CID recovery area and are classified as nonessential experimental animals.

There were 5 documented resident, 2 suspected resident, and 6 documented border packs (three tallied for Idaho and three tallied for Montana) in the Panhandle Region in 2007 (Figure 6; Table 2). Four of the 8 documented Idaho packs (Avery, Calder Mountain, Fishhook, and Marble Mountain) produced litters, but only the Fishhook pack qualified as breeding pair. Litter

production and breeding pair estimates were minimums as manpower and field season timing were insufficient to adequately survey all known Panhandle Region packs. The Calder Mountain and Solomon Mountain border packs shared time between Idaho and Montana, and were counted as Idaho packs, while the De Borgia, Silver Lake, and Superior packs were counted by Montana. The Boundary pack moved between Idaho and Canada.

Numerous observations of wolves or wolf sign have been reported in areas of the Panhandle Region where known wolf packs have not been documented. Reports indicated the recurring presence of wolves in the Coeur d'Alene Mountains, the eastern (near Priest Lake) and western (Pack River & southern Purcell Mountain ranges) portions of Big Game Management Unit 1. Observation reports have been received from additional areas of the Panhandle Region though not in a recurring fashion that would lead investigators to believe the persistent presence of wolves. Future monitoring will be conducted to determine the status of wolf activity in these areas of the Panhandle Region.

No documented or probable wolf-caused livestock losses occurred, although 1 domestic calf was confirmed to have been injured.

Law Enforcement Summary

Conservation Officers investigated or responded to 7 reports involving wolves. The carcasses of 2 dead wolves were recovered for which the causes of death were not determined. A road-killed wolf was recovered from I-90 approximately 3 miles (5 km) east of the city of Wallace, Idaho, and another reported road-killed wolf turned out to be a domestic dog. Regional IDFG staff recovered the radio-collars of 2 wolves that appeared to have been illegally killed. An IDFG Officer investigated the death of a domestic dog that was traveling with its owner in a remote area known to have significant wolf activity. The dog's death was later determined to have been caused by strychnine poisoning.

Documented Resident Packs

Avery

Four adults and 1 pup were observed by IDFG personnel in September 2007. In April 2007, an IDFG Conservation Officer recovered the carcass of a dead wolf in Hammond Creek that was likely a member of the Avery pack. The cause of death was unknown. Trapping efforts in September 2007 resulted in the radiocollaring of 1 gray pup, B357, which was discovered on mortality mode in late October and determined to have been illegally killed. Adult male B234 was the only marked wolf in this pack. The Avery pack was likely responsible for the deaths of 2 mountain lion pursuit hounds along the eastern edge of their home range and 2 pet Pyrenees pups on the southern edge of their range during 2007; none of these were verified or reported by WS personnel and therefore are not reported here. While reproduction was verified, this pack did not qualify as a breeding pair.

Fishhook

Program personnel determined the presence of 4 adults and 2 pups during September 2007 while investigating rendezvous sites. An aerial survey in November observed 8 wolves (official pack count). Two radiocollared wolves, female B217 and male B294, remained in this pack. This pack was considered a breeding pair for 2007.



Female B217 of the Fishhook pack sleeping near the pack's rendezvous site. *Nate Borg*

Five Lakes Butte

The sole radiocollared member of this pack, female B212 was monitored outside of the pack's normal home range during 2007 and was considered a disperser. B212 was located in the North Fork St. Joe River (approximately 35 miles [56 km] northeast of Five Lakes Butte) in September. There were reports of wolf sign in upper Chamberlin Creek and upper Vanderbilt Creek, areas within the traditional Five Lakes Butte home range, over summer 2007, but the status of this pack was unknown. The carcass of 1 wolf that died of unknown causes was recovered. This pack was not considered a breeding pair and there was no estimate of pack size.

Marble Mountain

Program personnel captured and collared an adult female wolf (B314) in September 2006 bringing the number of marked wolves in this pack to two, including previously marked male B216. In 2007, female B360 was instrumented with a radiocollar as well. During trapping operations, a minimum of 4 adult gray wolves and 1 gray pup were observed. This reproductive pack was not counted as a breeding pair for 2007.

Tangle Creek

The Tangle Creek pack was considered a Panhandle Region pack despite spending some time in the Clearwater Region as well. At the beginning of 2007, the Tangle Creek pack contained 2 radiocollared wolves, males B310 and B311. Monitoring efforts throughout the summer were unsuccessful with the exceptions of locations of B310 in July and September in upper Floodwood Creek in the Clearwater Region. In late October the signal from B311 was discovered on mortality mode in the upper reaches of Dworshak Reservoir. The collar was recovered in November by the Clearwater County Sheriff's dive team and was determined to be an illegal kill. The signal from B310 was found on live mode approximately 0.25 mile (0.4 km) southeast from the mortality signal. An abundance of additional wolf sign was noted adjacent to the mortality site. Two wolves, the official pack count, were observed from an aerial survey of the area in December 2007. This pack was not counted as a breeding pair.

Documented Border Packs

Boundary (ID)

This border pack was tallied to Idaho for 2007. In spring 2007, the only marked member of the Boundary pack (female B296) was discovered with the newly documented Solomon Mountain pack. Program personnel surveyed the traditional Boundary pack area in September 2007 and determined the presence of at least 2 wolves, but were unable to mark any animals or quantify the pack size. In May 2007, a domestic calf was injured near Hall Mountain and designated “probable wolf related” by WS, but the calf survived its injuries and did not constitute a wolf depredation. In early December 2007, WS’ personnel found the remains of a domestic calf (cause of death undetermined) that had been consumed by wolves and noted tracks indicating the presence of 5 wolves in the vicinity of Hall Mountain. The Boundary pack was considered a documented border pack (US/Canada border) but was not counted as a breeding pair.

Calder Mountain (ID)

This border pack was tallied for Idaho in 2007. This pack was first documented in 2005; however, to date no wolves have been radiocollared. The Calder Mountain pack was considered a Panhandle Region border pack based on den and rendezvous site locations and spent time in both Idaho and Montana. Program personnel discovered rendezvous sites and tracks indicating at least 3 adults and 1 pup in September (official counts), although a report of 4 pups was unverified. The Calder Mountain pack was not counted as a breeding pair for 2007.

De Borgia (MT)

This documented border pack was tallied by Montana in 2007. See the respective State’s annual report for information on this pack.

Silver Lake (MT)

This documented border pack was tallied by Montana. See the respective State’s annual report for information on this pack.

Solomon Mountain (ID)

This border pack was tallied for Idaho in 2007. The Solomon Mountain pack was discovered by monitoring female B296, originally a member of the Boundary pack. Program personnel monitored the radio signal at a likely den site in spring 2007 although no verification was accomplished. During summer, fall, and early winter 2007, the Solomon Mountain pack was located numerous times on both sides of the Idaho/Montana border by a MTFWP bear researcher. He had several visual observations of the pack, as many as 8 wolves, but could not determine the presence of pups. In December 2007, the signal from B296 was discovered on mortality mode. This wolf was originally captured by black bear research personnel in August 2006 and fitted with a radiocollar that incorporated a cotton spacer designed to decompose and release the collar. It was assumed that the radiocollar was detached as designed in December. The site was not investigated due to its remote location and heavy snowfall. The Solomon Mountain pack was considered an Idaho pack but was not counted as a breeding pair for 2007.

Superior (MT)

This documented border pack was tallied by Montana in 2007. See the respective State’s annual report for information on this pack.

Suspected Resident Packs

Bathtub Mountain

Persistent observations and reports by IDFG personnel, outfitters, and sportsmen indicated the presence of a wolf pack in the vicinity of Bathtub Mountain along the divide between the upper St. Joe River and the Little North Fork Clearwater River. Bathtub Mountain is approximately 5 miles (8 km) northeast of Snow Peak, the identifying landmark of the Snow Peak wolf pack that existed in the late 1990s. Future monitoring will be required to determine the status of this suspected pack.

Kootenai Peak

Persistent observations and reports by IDFG personnel, Bureau of Land Management and WS' personnel, and sportsmen indicate the presence of a wolf pack in the vicinity of Kootenai Peak, approximately 10 miles (16 km) northeast of St. Maries, Idaho, along the divide between the South Fork Coeur d'Alene River and the St. Joe River. Hunters reported observing wolf sign in Pine Creek, Latour Creek, Rochat Creek, and near Boise Peak. Personnel from the Bureau of Land Management reported, and IDFG personnel verified, wolf sign in Latour and Rochat Creeks. Wildlife Services' personnel observed 2 wolves in Hells Gulch and wolf sign in Willow Creek. Future monitoring will be required to determine the status of this suspected pack.

Other Documented Wolf Groups

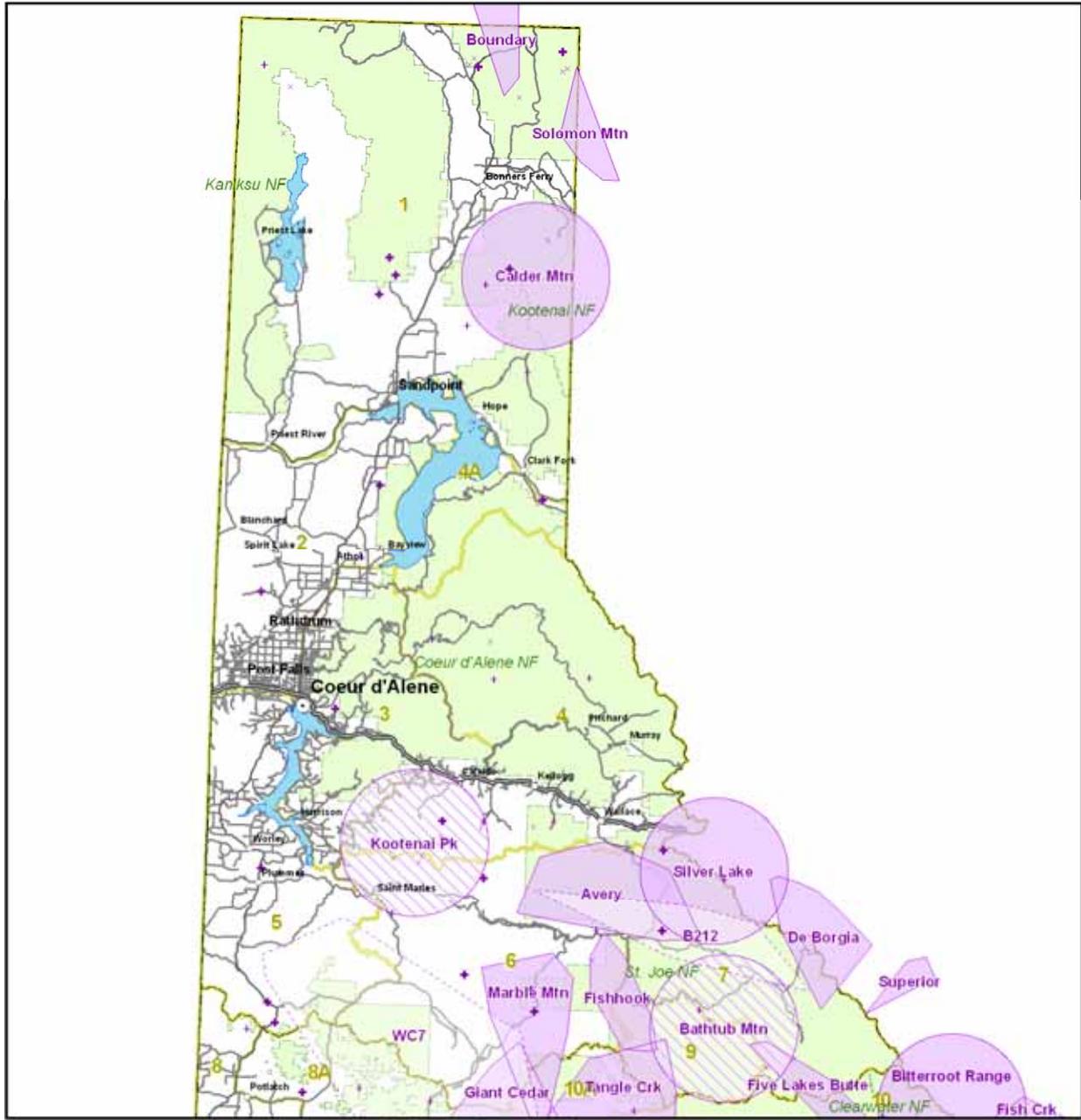
B212

Lone wolf B212 (dispersing female from the Five Lakes Butte pack) was last located in September near Shefoot Mountain along the North Fork St. Joe River. Future monitoring will be required to determine the status of this radio-marked wolf.

2007 Panhandle Region Wolf Activity

2006-07 Telemetry and Research-based Locations + 2007 Estimated Locations (Not Telemetry-based)** 2007 Public Observations ***

- | | | |
|--|--|--|
|  Documented Pack |  Documented Pack |  Multiple Wolves Observed |
|  Documented Group (Less than 4 animals) |  Documented Group (Pair or Group less than 4 animals) |  Single Wolf Sighted |
|  Documented Lone Wolf |  Suspected Pack |  Not Specified |
| |  Terminated Group | |



* Telemetry data and research locations collected and analyzed by Idaho Department of Fish and Game, the Nez Perce Tribe, Montana Department of Fish, Wildlife and Parks, Wildlife Services and the National Park Service. Pack locations are minimum convex polygons of telemetry and research observations for radiocollared wolves from 1/1/2006 - 12/31/2007 with outliers removed. Packs which did not exist in 2007 are excluded. This map is provided for management purposes and should not be used for data analysis. Do not release these data to third parties without first contacting the Idaho Department of Fish and Game or the Nez Perce Tribe.

** Estimated Pack Activity determined by biologists from research locations, public observations and incidental observations from 1/1/2006 - 12/31/2007.

*** Public Observations from 1/1/2007 - 12/31/2007 collected on the Idaho Fish and Game website and reviewed by staff biologists.

Figure 6. Wolf pack activity and observations in the Panhandle Region, 2007.

Table 2. Minimum number of wolves detected, reproductive status, mortality, dispersal, monitoring status, and livestock depredation for documented and suspected wolf packs and other wolf groups within Idaho Department of Fish and Game Panhandle Region, 2007.

Wolf group ^a	Min. no. wolves detected ^b	Reproductive status			Documented mortalities				Known dispersal	Monitoring status			Confirmed & (probable) wolf-caused livestock losses		
		Min. no. pups prod. (died) ^c	Reported as		Natural	Control ^e	Other human ^f	Unknwn ^g		Active radio collars	No. wolf captures ^h	No. wolves missing ⁱ	Cattle	Sheep	Dogs
			reprod. pack	breeding pair ^d											
DOCUMENTED PACK															
Avery	5	1(1)	YES	NO	0	0	1	1	0	1	1	0	0	0	0
Boundary (ID) ^j	5	?	NO	NO	0	0	0	0	1	0	0	0	0	0	0
Calder Mtn (ID) ^j	4	1	YES	NO	0	0	0	0	0	0	0	0	0	0	0
De Borgia (MT) ^j															
Fishhook	8	2	YES	YES	0	0	0	0	0	2	0	0	0	0	0
Five Lakes Butte	?	?	NO	NO	0	0	0	1	1	0	0	0	0	0	0
Marble Mountain	5	1	YES	NO	0	0	0	0	0	3	1	0	0	0	0
Silver Lake (MT) ^j															
Solomon Mtn (ID) ^j	8	?	NO	NO	0	0	0	0	0	0	0	0	0	0	0
Superior (MT) ^j															
Tangle Creek	2	?	NO	NO	0	0	1	0	0	1	0	0	0	0	0
SUBTOTAL	37	5(1)			0	0	2	2	2	7	2	0	0	0	0
SUSPECTED PACK															
Bathub Mountain	?				0	0	0	0	0	0	0	0	0	0	0
Kootenai Peak	?				0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0			0	0	0	0	0	0	0	0	0	0	0
OTHER DOCUMENTED GROUP															
B212 ^k	?				0	0	0	0	0	0	0	1	0	0	0
SUBTOTAL	0	0			0	0	0	0	0	0	0	1	0	0	0
UNKNOWN															
	?				0	0	1	0	0	0	0	0	0	0	0
SUBTOTAL	0	0			0	0	1	0	0	0	0	0	0	0	0
REGIONAL TOTAL	37	5(1)			0	0	3	2	2	7	2	1	0	0	0

^a Documented pack = territorial groups of wolves usually consisting of an adult male and female and their offspring from one or more generations, and has the potential to reproduce (2 adults of opposite sex). Suspected pack = geographic areas where wolf pack presence was suspected but not verified, or where wolf presence was verified but did not meet documented pack status. Other documented group = verified groups not meeting either documented or suspected pack status (e.g., lone wolves, potential mated pairs, etc.). Unknown = geographic areas where wolf presence was previously unverified and/or no data on group status was known.

^b Summing this column does not equate to number of wolves estimated to be present in the population.

^c Number in parentheses indicates known pup mortality; pup mortalities tallied in the appropriate column in DOCUMENTED MORTALITIES.

^d Breeding pairs are the measure of Federal and State wolf recovery and management goals. A breeding pair is defined as “an adult male and a female wolf that have produced at least 2 pups that survive until December 31 of the year of their birth...”.

^e Includes agency lethal control and legal take.

Table 2. Continued.

^f Includes all other human-related deaths.

^g Does not include pups that disappeared before winter.

^h Includes wolves captured for monitoring purposes during 2007. Most, but not all, were radiocollared.

ⁱ Radiocollared wolves that became missing in 2007.

^j Border pack officially tallied to (STATE); territory known/likely shared with Idaho. Data on these packs can be found in Rocky Mountain Wolf Recovery 2007 Annual Report; data for mortalities and/or depredations by non-Idaho border packs that occurred within Idaho are presented here.

^k B212 moved into the Panhandle Region from the Clearwater Region and was monitored in the former until October 2007.

Clearwater Region

The Clearwater Region maintained the highest pack total of all IDFG Regions, with 24 documented resident and 6 (two tallied for Idaho and four for Montana) documented border packs (Figure 7; Table 3). The non-radiocollared Magruder pack was removed from the list of documented packs due to lack of evidence of pack persistence in that area over the past 2 years. Nineteen reproductive packs, including Idaho's Bitterroot Range and Fish Creek border packs, produced 72 pups; seventeen of these qualified as breeding pairs. Fourteen documented wolf mortalities were recorded: five from other human causes, four from unknown causes, three from control, and two from natural causes. Livestock losses from wolf depredation in the Clearwater Region during 2007, as verified by WS, included 1 confirmed and 2 probable cattle killed. Sixteen wolves were captured (1 Selway pack pup was caught twice) in this region and 12 were fitted with radiocollars.

Law Enforcement Summary

Conservation Officers, in consultation with USFWS Special Agents, investigated 11 incidents involving wolf mortalities in the Clearwater Region. In 4 cases the cause of death was unknown, 2 wolves were legally killed, 2 deaths were verified or suspected illegal kills, 2 mortalities were attributed to other human causes, and one was deemed a natural death.

Documented Resident Packs

Battle Ridge

Biologists verified a rendezvous site and counted 2 pups (1 gray, 1 black) along with 1 black adult. A trapping effort was initiated, but was cut short due to fire danger, and further capture efforts were not possible due to fire closures. This first-year pack remains uncollared and had a minimum of 4 wolves (2 black, 1 gray, 1 unknown) and counted as a breeding pair for 2007.

Bimerick Meadow

Suspected breeding male B247 was not located after the May monitoring flight and his status since was unknown. Radio locations from female B289 led to the discovery of a rendezvous site where 4 gray pups were observed in mid-June. Minimum pack size, based upon aerial and field observations, was estimated at 7 wolves. This pack was a breeding pair for the third consecutive year.

Chesimia

After lethal control removed the alpha female and 3 other wolves in 2005, this pack did not display denning behavior in 2007 based upon telemetry locations of sole radiocollared wolf, 2-year-old female B222. In addition, the livestock operator in this pack's territory noted significantly less evidence of wolves in 2007 near her field camp, which was near the 2005 den site, and in the area in general, although in September she reported wolves harassing her herding dogs. By the end of 2007, B222 was located within traditional Chesimia pack territory, but it was unknown how many wolves were present in this pack. The Chesimia pack was not considered a breeding pair for 2007.

Cold Springs

Following the death of the alpha female, B206, in October 2005, there were no radiocollared individuals in this pack. Tracks of 2-3 individuals were located in late winter 2006/2007 in the

Race Creek drainage, but investigations of areas previously used by this pack failed to detect further presence. The Cold Springs pack was not considered a breeding pair for 2007.

Coolwater Ridge

Multiple pups were heard howling in early August, but no visual pup count was obtained. Two subadult males, B344 and B346, were captured and radiocollared to retain telemetry contact with the pack; suspected alpha female B163's radiocollar was believed to have expired. A minimum of 6 wolves including 2 pups was detected in this pack based on field efforts. The Coolwater Ridge pack was a breeding pair in 2007.

Deception

Female B213, captured and radiocollared as a member of the Five Lakes Butte pack in 2004, was last located in that territory in September 2005. She was not detected again until January 2006, at which time she was located in the Kelly Creek drainage. She subsequently was located north of Lolo Pass before returning to the area adjacent to the southern edge of the Five Lakes Butte pack's territory, along the North Fork Clearwater River. Aerial telemetry locations during spring 2007 suggested B213 might have localized at a potential den site. Field investigations in mid-August led to detection of a rendezvous site where 4 gray pups were observed. A trapping effort resulted in the capture of 3 pups, one of which (female B352) was radiocollared, and the alpha male (B354) that was also radiocollared. B213's signal was detected on mortality mode during a monitoring flight in early December; her radio signal was located in the North Fork Clearwater River and it was believed that she was dead. Pack size at the end of the year was enumerated at 5 individuals. This first-year pack was not a breeding pair for 2007 because only a single adult remained.

Eagle Mountain

Two radiocollared wolves, suspected alpha male B136 and adult female B295, assisted biologists in locating this pack's den site in the Selway-Bitterroot Wilderness where 3 pups (1 black, 2 gray) were observed. Pack size for 2007 was estimated at a minimum of 8 wolves, based upon ground and aerial observations. This pack was a breeding pair for 2007.

Earthquake Basin

Radio tracking of wolves B274 and B275 led biologists to a den site where 2 black and 6 gray pups were observed, which equaled the Monumental Creek pack as the largest litters recorded for 2007. An uncollared pack member was killed in a vehicle collision in May. Based upon field observations, this pack was estimated to contain a minimum of 10 wolves. The Earthquake Basin pack was a 2007 breeding pair.

Eldorado Creek

Radio tracking of adult male B281 and possible alpha female B301 led a biologist to a rendezvous site where 4 gray pups were observed. Field observations indicated a minimum of 6 wolves in this pack. The Eldorado Creek pack was a breeding pair for 2007.

Florence

Males B200 and B201, captured in 2004, continued their membership with the pack. A den site area was investigated in May, at which time 7 gray pups were documented. Based upon field observations, a minimum of 10 wolves was present, similar to aerial sightings in both 2004 and 2005. Two wolves in this pack's territory were inadvertently killed during coyote lethal control efforts. Breeding pair status was attained by the Florence pack for 2007.

Giant Cedar

Localized aerial and ground locations during spring of radiocollared wolves B256 (adult) and B308 (yearling) indicated a probable den site. A litter of 5 gray pups was observed at a rendezvous site in mid-July. Two uncollared adult-sized wolves were also observed at that time. Pack size was estimated at a minimum of 6 individuals. B307, a pup captured in 2006, was found dead in April near Bovill, Idaho; necropsy revealed a deformed spine, so cause of death was determined as natural. The Giant Cedar pack was a breeding pair in 2007.

Gospel Hump

Contact with both radiocollared wolves, females B138 and B139, was lost during 2004, making monitoring of this pack difficult. A USFS trail crew reported persistent howling and tracks near the traditional den site in 2006, but no reports were received of wolf activity in this pack's home range and there was no field effort made to locate the pack during 2007. The status of this pack was unknown at the end of the year. The Gospel Hump pack was not reported as a breeding pair in 2007 and there was no estimate of pack size.

Hemlock Ridge

This pack produced its fifth documented litter in 2007. Based upon howling, a minimum of 2 pups was detected. At least 5 adults were accounted for based upon radiocollared animals and howling, which resulted in a minimum pack size estimate of 7 wolves for 2007. In addition to existing radiocollared wolves B207 and B210, another 2 adult wolves B329 (male) and B330 (female), were radiocollared in 2007. The Hemlock Ridge pack was a 2007 breeding pair.

Indian Creek

Five wolves were observed during an IDFG winter ungulate survey in 2004. In 2007, biologists documented tracks of at least 2 wolves and observed 1 black wolf in this area. One natural mortality of an uncollared wolf occurred in this pack's territory. This fourth-year pack did not count as a breeding pair for 2007.

Kelly Creek

Suspected alpha male B220 and female B237 were present at a rendezvous site in early August. One gray pup and 4 gray adult-sized wolves, including B220, were observed. B220's radio signal was detected on mortality mode during a November monitoring flight; the carcass was recovered in early December and will be necropsied to determine cause of death. Pack size, derived from ground efforts, was estimated at 5 wolves. The longstanding Kelly Creek pack was not a breeding pair in 2007 because just a single pup was detected.

Lochsa

Female wolf B232, the sole radiocollared member of this pack, was not located after December 2006, but biologists were able to locate a rendezvous site in early August, where 4 gray pups were observed. One pup, B345, was captured and radiocollared. Two to 3 adults were heard howling, so pack size was estimated at a minimum of 6 individuals in 2007. B345 was aerielly located in November approximately 25 miles (40 km) southwest of the rendezvous site; it was unknown whether other pack members were present at this time or if this was a dispersal movement. The Lochsa pack was a breeding pair for 2007.

Magruder

Suspected alpha male B110 has not been located since June 2004, probably due to expiration of his radiocollar, and female B219 not since late May 2005. One effort to investigate this pack's previously used rendezvous sites was made, but it was hindered by wildfire-related closures, and little wolf sign was found. Status of this pack has been unknown for the past 2 years. Due to this lack of information, the Magruder pack was no longer considered a documented pack by the end of 2007.

O'Hara Point

This pack did not use their traditional denning area for the second consecutive year in 2007, complicating efforts to document reproduction and conduct capture operations. Tracks from at least 3 wolves, possibly including a pup(s), were located within this pack's territory, suggesting that a litter may have been produced; however, no additional evidence was collected to verify this. The O'Hara Point pack was not a breeding pair in 2007 because reproduction was not verified.

Pettibone Creek

Five wolves were observed during an IDFG winter ungulate survey in 2004. In 2007, biologists verified a rendezvous site with at least 2 pups (based on pup tracks and scats) and 2 adults (based on howling), resulting in a minimum pack size estimate of 4 wolves. Due to fire danger, biologists were evacuated from the area the day after the rendezvous site was discovered, thus traps were not set. Biologists could not access the area again that season due to fire closures. This fourth-year pack was counted as a breeding pair for 2007.

Pilot Rock

In late July, WS captured and radiocollared an adult female wolf, B342, and killed another in this pack's territory after 1 domestic calf was confirmed killed. In mid-August, while attempting to track B342, a biologist opportunistically observed a wolf pup cross the road in front of his vehicle. He was able to elicit a howling response from 4 pups at that time. The following day, 2 pups were observed (1 black, 1 gray). A second field effort resulted in a visual of 2 gray pups and estimated a minimum of 2-3 adult-sized wolves based upon howling. Minimum pack size was estimated at 6 wolves. This newly documented pack qualified as a breeding pair for 2007.

Pot Mountain

Five wolves were observed on a slope of Pot Mountain during a winter ungulate survey conducted by IDFG in spring 2005, so this group was added as a documented pack for 2005. No field effort was conducted in this area during 2007. No estimate of pack size was available and this pack was not a 2007 breeding pair.

Red River

In early February, a coyote trapper inadvertently captured a black wolf near Elk City, Idaho. Before Program personnel could reach the scene to radiocollar the animal, it suffered a broken leg; the wolf was radiocollared (male B318) and released despite its injury. Subsequent aerial telemetry indicated that the wolf was sufficiently mobile enough to travel throughout the pack's territory. Ground-tracking of B318 in early June led biologists to a rendezvous site where 3-4 pups were heard howling. From ground efforts, minimum pack size was estimated at 5 individuals. The Red River pack was considered a breeding pair for 2007.

Selway

One of the first packs to form in Idaho following the 1995 translocations from Canada, the Selway pack was returned to active monitoring status with the capture and radiocollaring of 2 pups in 2007. Investigation of a traditional rendezvous site in August led to the detection of the pack and the successful capture effort. Six black pups and 1 gray pup were observed, as well as 2 black adult-sized wolves; this pack had been composed solely of black wolves in the past. During a September monitoring flight, 13 black and 2 gray (1 adult, 1 pup) wolves were observed. The Selway pack was a breeding pair in 2007 and received its first radiocollared members (male pup B355 [captured twice] and female pup B356) since founding wolf B5's death in 2004.

Spirit Ridge

This newly documented pack was fortuitously located while a capture operation was underway for the neighboring Coolwater Ridge pack. Subadult female B339 was trapped and radiocollared in July; B339 is gray and all previously known individuals in the Coolwater Ridge pack were black, creating suspicion about this wolf's pack membership. A rendezvous site was located where 2 gray adult-sized wolves were observed and a third was heard howling, and a minimum of 4 pups was detected from howling (2 gray pups were seen). Minimum pack size was estimated to be 7 wolves. The Spirit Ridge pack qualified as a breeding pair for 2007.

White Bird Creek

Alpha female B284 was legally killed while the pack was harassing cattle in early April; she was pregnant and her death was believed to preclude this pack from reproducing in 2007. The remaining radiocollared wolf, male B285, was ground-tracked in late August and was seemingly alone both days he was observed. One domestic calf, probably killed by wolves, was attributed to this pack. A gray wolf was found dead in this pack's territory in early December; it was recorded as a mortality for this pack, although circumstances of its death suggested it may have been a dispersing wolf from another pack. Pack size was estimated at 4 wolves. The White Bird Creek pack was not considered a breeding pair in 2007.

Documented Border Packs

Big Hole (MT)

This documented border pack was tallied for Montana for 2007. See the respective State's annual report for information on this pack. One adult wolf died in Idaho as a result of capture-related activities.

Bitterroot Range (ID)

This documented border pack was tallied for Idaho in 2007. This newly documented and uncollared pack was located by MTFWP personnel in the Goose Creek drainage on the Idaho side of the Idaho/Montana border southeast of Hoodoo Pass. Three gray adults and 2 gray pups were observed, making this pack an Idaho breeding pair for 2007.

Brooks Creek (MT)

This documented border pack was tallied for Montana for 2007. See the respective State's annual report for information on this pack.

Fish Creek (ID)

This documented border pack was tallied for Idaho in 2007. The Fish Creek pack denned in Idaho for the second consecutive year in 2007. Ground-tracking of radiocollared wolves B235 (suspected alpha female) and B236 (adult male) in the Kelly Creek drainage led to the discovery of a rendezvous site where 4 pups (3 gray, 1 possibly black) and 7-8 adults were observed. Approximately 1 week later, an aerial observation by MTFWP substantiated the pup count. This 9-member border pack, based upon a December aerial observation, was considered an Idaho breeding pair for 2007.

Lake Como (MT)

This documented border pack was tallied for Montana for 2007. See the respective State's annual report for information on this pack.

Trapper Peak (MT)

This documented border pack was tallied for Montana for 2007. See the respective State's annual report for information on this pack.

Suspected Resident Packs

Granddad

During 2006, a survey/trapping effort during the latter half of August detected 4 sets of wolf tracks and 1 wolf was temporarily captured, but managed to pull free from the trap. In July 2007, investigation of this area yielded 1 set of wolf tracks. A report was received from mid-September that indicated a possible location of a rendezvous site and 2 gray wolves were reportedly observed there. This site will be searched next year to determine this pack's status, and to possibly conduct capture efforts.

Tahoe

Female B320 was captured in May during a control action initiated by WS where 1 domestic calf was probably killed and 2 others were confirmed injured by wolves. B320 was aerielly monitored until August, at which time her signal was detected on mortality mode. Her remains were recovered and an investigation was undertaken by USFWS Law Enforcement. Local residents reported observing 5 wolves in February, though ground efforts following B320's death were unable to document presence or wolf sign in the areas she had frequented. Further efforts to determine wolf pack status in this area will be made in 2008.

Suspected Border Packs

Watchtower Creek (MT)

This suspected border pack was tallied for Montana for 2007. See the respective State's annual report for information on this pack.

Other Documented Wolf Groups

Roaring Lion (ID)

Biologists verified at least 2 wolves in this group based on track evidence. Multiple trapping efforts were unsuccessful.

Saturday

Biologists verified at least 2 wolves in this group based on track evidence. Trapping efforts were unsuccessful.

WC7

On 31 October 2006, male wolf WC7 was captured near Nanton, Canada (approximately 58 miles [94 km] south of Calgary, Alberta), and fitted with a GPS radiocollar. This wolf emigrated to the U.S. on 31 March 2007 (first location south of the international border). Satellite locations provided by Alberta Sustainable Resource Development indicated the wolf generally followed the Flathead River to Flathead Lake before making its way along the Clark Fork River in late April. It first was located in Idaho on 9 May 2007, north of Lookout Pass. Since 26 May 2007 it roamed an area encompassed by the towns of Santa, Elk River, and De Smet, Idaho, suggesting that it may have settled into a home range. Ground and aerial searches failed to detect this wolf's radio signal, thwarting efforts to ascertain whether WC7 was affiliated with other wolves. The GPS radiocollar was scheduled to automatically detach from around the wolf's neck at the end of October, but widely scattered fixes were obtained until late November that indicated the radiocollar may not have functioned as programmed. No further GPS fixes were obtained, suggesting the radiocollar expired or was otherwise no longer able to communicate with tracking satellites.

Monitoring Wolves in the Selway-Bitterroot Wilderness

Due to difficulty in monitoring wolves in the wilderness areas of central Idaho, IDFG began intensively pursuing wolf capture efforts in the Selway-Bitterroot Wilderness Area in 2007 in addition to ongoing efforts being conducted by the NPT. Initially, the IDFG requested permission from the USFS to helicopter-dart wolves in the Wilderness Area incidental to big game winter monitoring. Due to expense of conducting a National Environmental Policy Act analysis for landing in the wilderness, IDFG and the USFS instead provided matching funds and cooperated in an increased ground monitoring effort.

The main goal of the project was to capture and radiocollar wolves in the Selway-Bitterroot Wilderness. The IDFG crews were unable to capture a wolf during the first summer of this project. However, they did document 2 breeding pairs, 2 other wolf groups, and 1 suspected pack (Table 3). This information will be used to focus capture efforts in 2008. Nez Perce Tribe crews were able to capture 2 uncollared wolf packs adjacent to the Wilderness Area. These packs will likely use the Wilderness Area for at least part of each year. Two other packs (Eagle Mountain and Coolwater Ridge) continued to be monitored via radiocollars.

In addition to trapping attempts, the IDFG surveyed 575 miles of trails for wolf sign. The IDFG collected Global Positioning System (GPS) locations of wolf and elk sign along these trails and are using that dataset to test and further develop a model that predicts areas of high wolf use. Being able to accurately predict areas of high wolf use will be an important aspect of the standardized monitoring protocols.

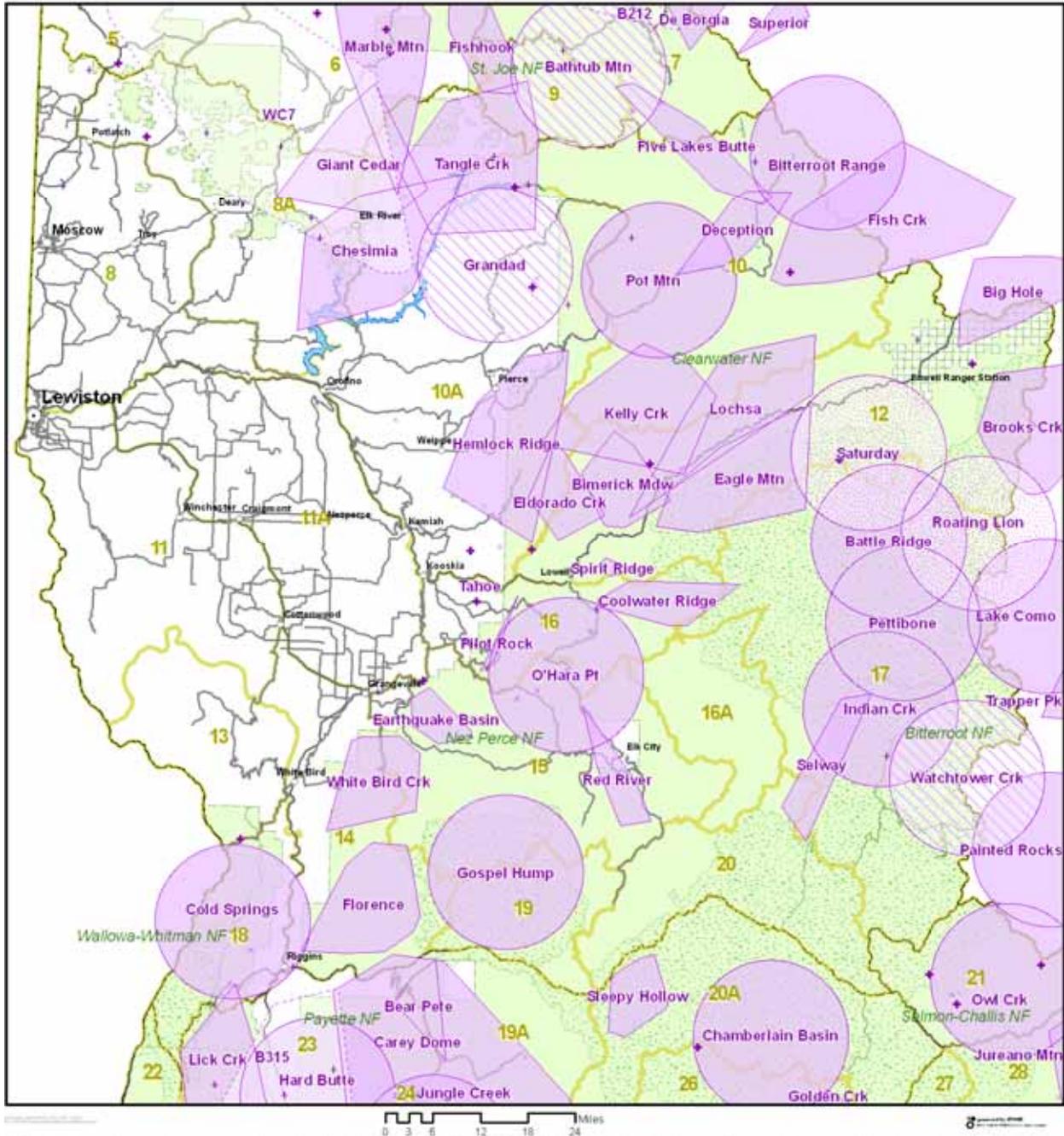
Currently, there are 10 known or suspected groups of wolves that use the Selway-Bitterroot Wilderness Area for all or part of each year: the radiocollared, documented Coolwater Ridge, Eagle Mountain, Selway, and Spirit Ridge packs; the uncollared documented Battle Ridge, Indian Creek, and Pettibone Creek packs; the uncollared suspected Watchtower Creek pack; and

2 other wolf groups (Roaring Lion, Saturday) without radiocollared members. Six of the radiocollared and documented resident packs qualified as breeding pairs for 2007 (Table 3).

2007 Clearwater Region Wolf Activity Telemetry, Documented and Suspected Locations

2006-07 Telemetry and Research-based Locations * 2007 Estimated Locations (Not Telemetry-based)** 2007 Public Observations ***

- | | | |
|--|--|--|
|  Documented Pack |  Documented Pack |  Multiple Wolves Observed |
|  Documented Group (Less than 4 animals) |  Documented Group (Pair or Group less than 4 animals) |  Single Wolf Sighted |
|  Documented Lone Wolf |  Suspected Pack |  Not Specified |
| |  Terminated Group | |



* Telemetry data and research locations collected and analyzed by Idaho Department of Fish and Game, the Nez Perce Tribe, Montana Department of Fish, Wildlife and Parks, Wildlife Services and the National Park Service. Pack locations are minimum convex polygons of telemetry and research observations for radio-collared wolves from 1/1/2006 - 12/31/2007 with outliers removed. Packs which did not exist in 2007 are excluded. This map is provided for management purposes and should not be used for data analysis. Do not release these data to third parties without first contacting the Idaho Department of Fish and Game or the Nez Perce Tribe.

** Estimated Pack Activity determined by biologists from research locations, public observations and incidental observations from 1/1/2006 - 12/31/2007

*** Public Observations from 1/1/2007 - 12/31/2007 collected on the Idaho Fish and Game website and reviewed by staff biologists.

Figure 7. Wolf pack activity and observations in the Clearwater Region, 2007.

Table 3. Minimum number of wolves detected, reproductive status, mortality, dispersal, monitoring status, and livestock depredation for documented and suspected wolf packs and other wolf groups within Idaho Department of Fish and Game Clearwater Region, 2007.

Wolf group ^a	Min. no. wolves detected ^b	Reproductive status			Documented mortalities				Known dispersal	Monitoring status			Confirmed & (probable) wolf-caused livestock losses		
		Min. no. pups prod. (died) ^c	Reported as		Natural	Control ^e	Other human ^f	Unknwn ^g		Active radio collars	No. wolf captures ^h	No. wolves missing ⁱ	Cattle	Sheep	Dogs
			reprod. pack	breeding pair ^d											
DOCUMENTED PACK															
Battle Ridge	4	2	YES	YES	0	0	0	0	0	0	0	0	0	0	0
Big Hole (MT) ^j							1								
Bimerick Meadow	7	4	YES	YES	0	0	0	0	0	1	0	1	0	0	0
Bitterroot Rge (ID) ^j	5	2	YES	YES	0	0	0	0	0	0	0	0	0	0	0
Brooks Crk (MT) ^j															
Chesimia	?	?	NO	NO	0	0	0	0	0	1	0	0	0	0	0
Cold Springs	2	?	NO	NO	0	0	0	0	0	0	0	0	0	0	0
Coolwater Ridge	6	2	YES	YES	0	0	0	0	0	2	2	0	0	0	0
Deception	5	4	YES	NO	0	0	0	1	0	2	4	0	0	0	0
Eagle Mountain	8	3	YES	YES	0	0	0	0	0	2	0	0	0	0	0
Earthquake Basin	10	8	YES	YES	0	0	1	0	0	2	0	0	0	0	0
Eldorado Creek	6	4	YES	YES	0	0	0	0	0	2	0	0	0	0	0
Fish Creek (ID) ^j	9	4	YES	YES	0	0	0	0	0	2	0	0	0	0	0
Florence	10	7	YES	YES	0	0	2	0	0	2	0	0	0	0	0
Giant Cedar	6	5	YES	YES	1	0	0	0	0	2	0	0	0	0	0
Gospel Hump	?	?	NO	NO	0	0	0	0	0	0	0	0	0	0	0
Hemlock Ridge	7	2	YES	YES	0	0	0	0	0	4	2	0	0	0	0
Indian Creek	2	?	NO	NO	1	0	0	0	0	0	0	0	0	0	0
Kelly Creek	5	1	YES	NO	0	0	0	1	0	1	0	0	0	0	0
Lake Como (MT) ^j															
Lochsa	6	4	YES	YES	0	0	0	0	0	1	1	1	0	0	0
Magruder ^k															
O'Hara Point	3	?	NO	NO	0	0	0	0	0	0	0	0	0	0	0
Pettibone	4	2	YES	YES	0	0	0	0	0	0	0	0	0	0	0
Pilot Rock	6	4	YES	YES	0	1	0	0	0	1	1	0	1	0	0
Pot Mountain	?	?	NO	NO	0	0	0	0	0	0	0	0	0	0	0
Red River	5	3	YES	YES	0	0	0	0	0	1	1	0	0	0	0
Selway	15	7	YES	YES	0	0	0	0	0	2	3	0	0	0	0
Spirit Ridge	7	4	YES	YES	0	0	0	0	0	1	1	0	0	0	0
Trapper Peak (MT) ^j															
White Bird Creek	4	0	NO	NO	0	1	0	1	0	1	0	0	(1)	0	0
SUBTOTAL	142	72			2	2	4	3	0	30	15	2	1(1)	0	0

Table 3. Continued.

Wolf group ^a	Min. no. wolves detected ^b	Reproductive status		Documented mortalities				Known dispersal	Monitoring status			Confirmed & (probable) wolf-caused livestock losses			
		Min. no. pups prod. (died) ^c	Reported as		Natural	Control ^e	Other human ^f		Unknwn ^g	Active radio collars	No. wolf captures ^h	No. wolves missing ⁱ	Cattle	Sheep	Dogs
			reprod. pack	breeding pair ^d											
SUSPECTED PACK															
Grandad	1				0	0	0	0	0	0	0	0	0	0	0
Tahoe	?				0	0	0	1	0	0	1	0	(1)	0	0
Watchtower Crk (MT) ^j															
SUBTOTAL	1	0			0	0	0	1	0	0	1	0	(1)	0	0
OTHER DOCUMENTED GROUP															
Roaring Lion (ID) ^j	2				0	0	0	0	0	0	0	0	0	0	0
Saturday	2				0	0	0	0	0	0	0	0	0	0	0
WC7	1				0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	5	0			0	0	0	0	0	0	0	0	0	0	0
UNKNOWN															
	?				0	1	1	0	0	0	0	0	0	0	0
SUBTOTAL	0				0	1	1	0	0	0	0	0	0	0	0
REGIONAL TOTAL	148	72			2	3	5	4	0	30	16	2	1(2)	0	0

^a Documented pack = territorial groups of wolves usually consisting of an adult male and female and their offspring from one or more generations, and has the potential to reproduce (2 adults of opposite sex). Suspected pack = geographic areas where wolf pack presence was suspected but not verified, or where wolf presence was verified but did not meet documented pack status. Other documented group = verified groups not meeting either documented or suspected pack status (e.g., lone wolves, potential mated pairs, etc.). Unknown = geographic areas where wolf presence was previously unverified and/or no data on group status was known.

^b Summing this column does not equate to number of wolves estimated to be present in the population.

^c Number in parentheses indicates known pup mortality; pup mortalities tallied in the appropriate column in DOCUMENTED MORTALITIES.

^d Breeding pairs are the measure of Federal and State wolf recovery and management goals. A breeding pair is defined as “an adult male and a female wolf that have produced at least 2 pups that survive until December 31 of the year of their birth...”.

^e Includes agency lethal control and legal take.

^f Includes all other human-related deaths.

^g Does not include pups that disappeared before winter.

^h Includes wolves captured for monitoring purposes during 2007. Most, but not all, were radiocollared.

ⁱ Radiocollared wolves that became missing in 2007.

^j Border pack officially tallied to (STATE); territory known/likely shared with Idaho. Data on these packs can be found in Rocky Mountain Wolf Recovery 2007 Annual Report; data for mortalities and/or depredations by non-Idaho border packs that occurred within Idaho are presented here.

^k Group no longer considered extant due to agency lethal removal, lack of verified evidence for the preceding 2 years, or other cause.

McCall Subregion of the Southwest Region

The McCall Subregion was occupied by 14 documented packs during 2007 (Figure 8; Table 4). Due to lethal control conducted in 2004 and 2005 and the documentation of new packs within their former home ranges, the Hazard Lake and Partridge Creek packs were removed as documented packs in 2007. The two new packs inhabiting this area (Hard Butte verified in 2007, Carey Dome verified in 2005) may consist of remnant members of the former resident packs, but because continuous monitoring was not possible due to loss of radiocollared wolves, new names were given to the packs now occupying those territories. The Oxbow pack was removed from the list of suspected packs due to lack of evidence of continued wolf presence in that area. Seven of 8 reproductive packs qualified as breeding pairs; the Carey Dome pack was disqualified because it was believed that only 1 adult wolf was present at the end of 2007. Documented mortalities ($n = 13$) included control (agency removal and legal take; $n = 10$), other human causes (illegal take, vehicle collision, etc.; $n = 2$), and unknown ($n = 1$). Confirmed ($n = 8$) and probable ($n = 2$) wolf-caused losses of cattle were attributed to the Blue Bunch and Hard Butte packs, and wolves believed affiliated with B327 and B349. Confirmed ($n = 60$) and probable ($n = 3$) wolf-caused losses of domestic sheep were attributed to the Blue Bunch, Carey Dome, Hard Butte, Jungle Creek, and Lick Creek packs. Confirmed ($n = 4$) and probable ($n = 3$) wolf-caused losses of domestic dogs were attributed to the Blue Bunch and Hard Butte packs. Six wolves were captured by Program personnel that resulted in the placement of 5 new radiocollars (1 radiocollar was shed by a Carey Dome pack pup), and replacement of 1 existing radiocollar.

Law Enforcement Summary

Conservation Officers, in consultation with USFWS Special Agents, investigated 4 incidents involving wolf mortalities in the McCall Subregion. One wolf was recovered along Highway 95, having died of unknown cause. A second wolf carcass was recovered west of Riggins, Idaho, and was determined to have been struck by a vehicle. The third incident involved the shooting of a wolf harassing livestock, and it was determined to be a legal take under the 10(j) Rule. A fourth wolf was located on mortality mode during a monitoring flight, and the resulting investigation indicated the wolf was illegally killed.

Documented Resident Packs

Bear Pete

Male wolf B157, formerly a member of the Jungle Creek pack, began using areas outside of that pack's home range after September 2006. It was unknown whether the entire Jungle Creek pack had shifted winter use, as they did in 2005, or if B157 had separated from the pack (he was aerially observed in early March 2007 with 1 other wolf). A capture effort in mid-July resulted in the replacement of B157's radiocollar and his new mate, B331, receiving her initial radiocollar. Six pups were observed within approximately 0.5 miles (0.8 km) of the capture site. B157, B331, and 6 gray pups were observed during the August monitoring flight in a meadow west of Marshall Lake; minimum pack size was 8 individuals. This first-year pack was a breeding pair for 2007.

Blue Bunch

Founded by alpha female B218 and an unknown male, this pack produced its third litter of pups in 2007. The den site was located near their namesake ridge, where 3 gray pups were observed in late June. Field and aerial observations indicated the minimum estimated pack size was 7

individuals. This pack was implicated in livestock depredations where 3 domestic sheep were confirmed killed and 1 calf was listed as a probable wolf-kill. Three domestic dogs were also confirmed killed by this pack, and another was classified as a probable wolf kill. The Blue Bunch pack was a breeding pair for 2007.

Carey Dome

During control actions in 2006, females B309 and B315 (see Other Documented Wolf Groups), were captured and radiocollared; they were believed to be members of the Carey Dome pack, although the actual number of packs and wolf membership was not certain in this area due to disruption of wolf social structure from continued wolf-livestock conflicts and attendant lethal wolf removals. Four pups were observed during mid-July, though additional pups were likely present based upon howling. Three wolves from this pack were known to have died in 2007. Two adult males were lethally controlled (WS attributed 7 confirmed and 1 probable wolf-killed domestic sheep to this pack) and another wolf was killed by a vehicle on the fringe of the pack's home range. Based upon aerial sightings, ground efforts, and lethal control activities, it was believed that by the end of 2007, this pack was minimally comprised of alpha female B309 and her 4+ pups. The Carey Dome pack was not a breeding pair in 2007 because only 1 adult wolf was present in this pack at the end of the year.

Chamberlain Basin

Five gray pups were observed and a sixth was heard howling in mid-July. In addition, 5 adults were observed. The carcass and radiocollar of the pack's original alpha female, B16, was discovered by a hiker near the mouth of Sabe Creek on the north side of the Salmon River. Based upon level of decomposition, it was likely that B16 died during 2006. Minimum estimated pack size was 11 wolves. The Chamberlain Basin pack was a 2007 breeding pair.

Golden Creek

Researchers from the University of Idaho's Taylor Ranch field station observed 4 gray pups near the suspected den area. Possible alpha male B319 was captured in early April, joining suspected alpha female B229 as radiocollared individuals. Pack size was estimated at a minimum of 7 individuals. The Golden Creek pack was a breeding pair for 2007.

Hard Butte

This pack occupied at least part of the former Hazard Lake pack's territory (see Hazard Lake). Following up on reports from hunters during bow-hunting season, biologists were able to document the presence of at least 3 pups and multiple adults based upon howling. A capture effort was initiated, but pack mobility and the presence of sheep herding/guarding dogs limited the scope of the operation, and no wolves were caught. The origin of this pack was unknown; they may be remnants of the Hazard Lake pack, which was heavily controlled in 2004 (including removal of all radiocollared individuals), or they may have derived from wolves that recolonized this area following the elimination of the previous pack. This pack was involved in 8 confirmed and 1 probable wolf-killed sheep plus 1 confirmed calf depredation. One pet dog was killed and 2 others were categorized as probable wolf-kills by this pack. An adult male wolf, probably a member of this pack, was lethally controlled in late November northeast of New Meadows, Idaho. Minimum estimated pack size was 5 wolves. The Hard Butte pack was considered a breeding pair in 2007.

Hazard Lake

This pack has been removed from the list of documented packs and the Hard Butte pack occupied this territory.

Jungle Creek

All previously documented rendezvous sites for this pack were investigated in June, but none of them were in use and very little wolf sign was seen in those areas. A University of Montana research crew heard multiple wolves howling near the Twentymile Creek drainage prior to the rendezvous site searches, but with the departure of B157 (*see* Bear Pete), monitoring of this uncollared group was difficult. Reports of black and gray wolves were received during summer from Victor and Pearl Creeks, drainages known to have been used by the pack in the past, but all previously known wolves in this pack were gray individuals. In mid-August, wolves were confirmed to have killed 41 sheep near Josephine Lake north of McCall, Idaho; another 15 sheep were injured. Wildlife Services' personnel opportunistically killed 4 wolves during depredation investigation/control activities over 2 days: 2 adult, black females; 1 adult, black male; and 1 adult, gray male. Multiple wolves were heard howling by the WS field agent the following day. Based upon the coincidence of pelage colors reported from sightings and the wolves lethally removed, it was believed that wolves reported from Victor/Pearl Creeks were responsible for the depredations. A second incidence of sheep depredation occurred in September, at which time WS attempted to radiocollar the first individual captured, but no wolves were caught. Pack size was estimated at a minimum of 4 individuals at the end of 2007. This pack was not reported as a breeding pair for 2007 as there was no information pertaining to their reproductive status.

Lick Creek

The Lick Creek pack's den area was located in late May, but due to heavy vegetative cover only 2 gray pups were observed at that time. A second field effort in early July was able to document 6 gray pups and the presence of 2 adult-sized wolves, including suspected alpha female B288. Minimum pack size was estimated at 8 wolves. This pack was implicated in the loss of 1 confirmed and 1 probable sheep killed by wolves. The Lick Creek pack was a breeding pair for 2007.

Monumental Creek

Females B250 and B287 remained with the pack, though B287 was located only sporadically throughout the year. The minimum pack estimate was 15 gray wolves (8 pups, 7 adults) based upon an observation at the den/rendezvous site. This pack qualified as a 2007 breeding pair.

Orphan

With no radiocollared wolves to assist biologists, this pack was difficult to monitor. Sightings during spring suggested that wolves were present, but the number of wolves was undetermined. Residents of a fire camp in Scott Valley, where the pack's rendezvous site was found in 2005, reported hearing and observing what they believed to be multiple wolves howling, including pups. Several survey efforts failed to reveal wolf activity or evidence of reproduction. Male wolf B327 (*see* Other Documented Wolf Groups) was captured in the former Gold Fork pack's territory, but was often located in the Orphan pack's home range. Pack and reproductive status of the Orphan pack was unknown at the end of 2007, so it was not considered a breeding pair.

Partridge Creek

This pack has been removed from the list of documented because the Carey Dome and Bear Pete packs occupied this territory.

Sleepy Hollow

Male B148, captured as a member of the Big Hole pack, and male B181, captured as a member of the Partridge Creek pack, have adjacent radio frequencies. Both of these wolves dispersed from their respective packs and radio contact was lost for a time on B148 (from late October 2003 until January 2005). A signal from one of these wolves was detected in what became the Sleepy Hollow pack's home range, but due to frequency drift, Program personnel were unable to identify which of these wolves was being monitored. Spring telemetry locations were inconclusive as to the denning status of this pack, and it was hoped that the pack would move to a more readily accessible location where reproductive status could be assessed. Wildfires prevented any survey efforts, but an aerial observation in October spotted only 3 wolves, though this was likely an incomplete count compared with 2006 data. During a November monitoring flight, the radiocollared individual was detected on mortality mode. An attempt to recover the carcass/radiocollar was initiated, but no further radio signal was heard, suggesting the radiocollar's battery expired before it could be recovered; this was recorded as a suspected mortality. The Sleepy Hollow pack was not considered a breeding pair in 2007 and a minimum of 2 wolves remained.

Stolle Meadows

Aerial telemetry locations suggested that suspected alpha female B249 had denned in spring 2007. Investigation of this area indicated prolonged wolf use, but no evidence of pups or a den was found. Ground and aerial observations from 2006 suggested that perhaps only the 2 radiocollared wolves, B249 and male B259 were present. Wildfires prevented access for much of the field season, but prior to area restrictions, a University of Montana research crew located a minimum of 3 sets of wolf tracks and a recreationist reported observing 5-8 wolves along the South Fork Salmon River. An aerial observation in October spotted 3 black and 1 gray wolves, while B259 (white) was likely not seen. Based upon an aerial observation and reports, minimum estimated pack size was 4 individuals. The Stolle Meadows pack was not counted as a breeding pair for the second consecutive year.

Thunder Mountain

Program efforts to document continued wolf occupancy of this pack's territory were successful when wolf tracks and scats were located in the Indian Creek drainage; however, subsequent wildfires in the area thwarted plans for a capture operation and no further field efforts were undertaken. A hunting outfitter with a camp at Riordan Lake reported multiple sightings of 7 wolves there in 2006, but this information could not be verified. No evidence of reproduction was obtained, so the Thunder Mountain pack was not recorded as a breeding pair for 2007. Additional monitoring efforts will be made to determine this pack's status in 2008.

Wolf Fang

Suspected alpha female B282, radiocollared in June 2006, was not located from October 2006 through March 2007; this pack's whereabouts were unknown during this time. In April, a ground crew detected B282's radio signal in the Big Creek drainage near where this pack's pups were observed in 2006. Five gray wolves were observed, but no evidence of reproduction was found and the wolves moved extensively at a time when they should have been localized if pups were present. Three gray wolves were observed during an October monitoring flight, but based upon field efforts the minimum pack size estimate was 5 wolves. This pack was not considered a breeding pair for 2007.

Suspected Resident Packs

Oxbow

Due to a lack of information for the past 2 years, the Oxbow pack was no longer considered a suspected pack by the end of 2007.

Other Documented Wolf Groups

B219

During a September monitoring flight, B219's radio signal was located on mortality mode near Rainbow Lake in the Boise National Forest. She was initially captured and radiocollared as a member of the Magruder pack in 2004, and had not been located since May 2005. Skeletal remains and her radiocollar were retrieved at a site approximately 55 miles (88 km) from the Magruder pack's home range and based upon the condition of the remains, it was estimated that B219 likely died prior to 2007; an investigation was opened by USFWS Law Enforcement division.

B315

Female B315 was captured and radiocollared during a control action in October 2006 south of Hartley Meadows (north of McCall, Idaho). She remained in the vicinity of her capture until December 2006, at which time she was aeri ally located along the Salmon River. In January 2007, she was aeri ally located a few miles south of Riggins, Idaho, along the Little Salmon River. B315's signal was not detected again until September 2007, when she was located in the headwaters of Rapid River on the west side of the Little Salmon River drainage. Pack affiliation, if any, and reproductive status were unknown.

B327

Male wolf B327 was captured by WS during a control action and fitted with a GPS radiocollar. B327 was trapped in the former Gold Fork pack's home range, but was also located within the Orphan pack's territory, including their 2005 rendezvous site. Ground-tracking efforts to determine his affiliation with other wolves were unsuccessful; B327 appeared to be alone each time he was located. Six confirmed calf losses and 1 probable calf loss occurred during the time span preceding B327's capture, during the control action, and also following his capture.

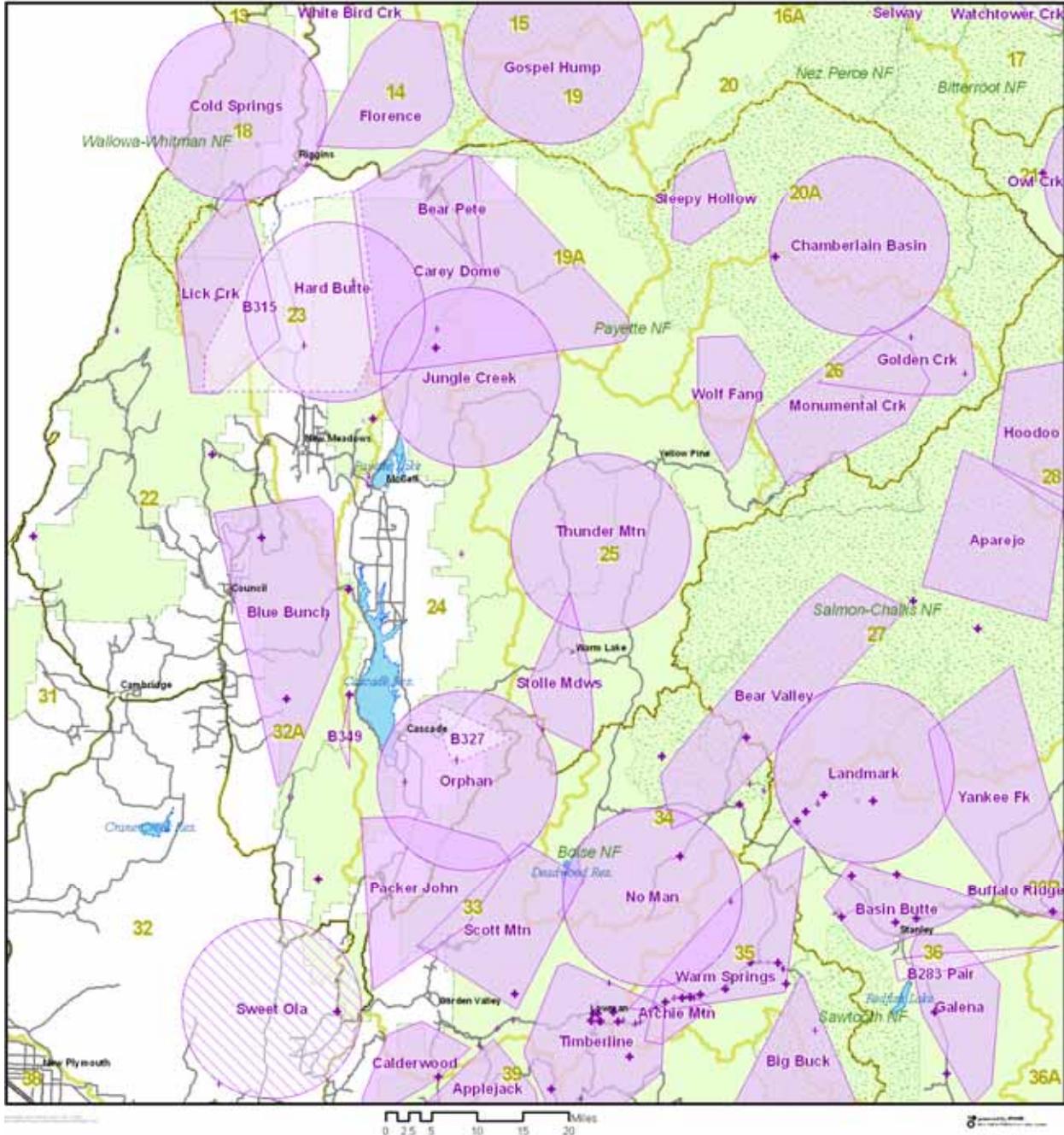
B349

Male wolf B349 was captured and radiocollared in mid-August by WS. Two other wolves were lethally removed during this control action. Following these removals, tracks of at least 2 wolves were found near a recent aerial location of B349. During the October monitoring flight B349's signal was detected on mortality mode; USFWS Law Enforcement agents investigated the following day, collected the carcass, and opened an active case. The loss of B349 will make determination of wolf status in this area more difficult to ascertain.

2007 McCall SubRegion Wolf Activity Telemetry, Documented and Suspected Locations

2006-07 Telemetry and Research-based Locations * 2007 Estimated Locations (Not Telemetry-based)** 2007 Public Observations ***

- | | | |
|--|--|--|
|  Documented Pack |  Documented Pack |  Multiple Wolves Observed |
|  Documented Group (Less than 4 animals) |  Documented Group (Pair or Group less than 4 animals) |  Single Wolf Sighted |
|  Documented Lone Wolf |  Suspected Pack |  Not Specified |
| |  Terminated Group | |



* Telemetry data and research locations collected and analyzed by Idaho Department of Fish and Game, the Nez Perce Tribe, Montana Department of Fish, Wildlife and Parks, Wildlife Services and the National Park Service. Pack locations are minimum convex polygons of telemetry and research observations for radio-collared wolves from 1/1/2006 - 12/31/2007 with outliers removed. Packs which did not exist in 2007 are excluded. This map is provided for management purposes and should not be used for data analysis. Do not release these data to third parties without first contacting the Idaho Department of Fish and Game or the Nez Perce Tribe.

** Estimated Pack Activity determined by biologists from research locations, public observations and incidental observations from 1/1/2006 - 12/31/2007.

*** Public Observations from 1/1/2007 - 12/31/2007 collected on the Idaho Fish and Game website and reviewed by staff biologists.

Figure 8. Wolf pack activity and observations in the McCall Subregion, 2007.

Table 4. Minimum number of wolves detected, reproductive status, mortality, dispersal, monitoring status, and livestock depredation for documented and suspected wolf packs and other wolf groups within Idaho Department of Fish and Game McCall Subregion, 2007.

Wolf group ^a	Min. no. wolves detected ^b	Reproductive status			Documented mortalities				Known dispersal	Monitoring status			Confirmed & (probable) wolf-caused livestock losses		
		Min. no. pups prod. (died) ^c	Reported as		Natural	Control ^e	Other human ^f	Unknwn ^g		Active radio collars	No. wolf captures ^h	No. wolves missing ⁱ	Cattle	Sheep	Dogs
			reprod. pack	breeding pair ^d											
DOCUMENTED PACK															
Bear Pete	8	6	YES	YES	0	0	0	0	0	2	2	0	0	0	0
Blue Bunch	7	3	YES	YES	0	0	0	0	0	1	0	0	(1)	3	3(1)
Carey Dome	5	4	YES	NO	0	2	1	0	0	1	1	0	0	7(1)	0
Chamberlain Basin	11	6	YES	YES	0	0	0	0	0	0	0	0	0	0	0
Golden Creek	7	4	YES	YES	0	0	0	0	0	2	1	0	0	0	0
Hard Butte	5	3	YES	YES	0	1	0	0	0	0	0	0	1	8(1)	1(2)
Hazard Lake^j															
Jungle Creek	4	?	NO	NO	0	4	0	0	0	0	0	0	0	41	0
Lick Creek	8	6	YES	YES	0	0	0	0	0	1	0	0	0	1(1)	0
Monumental Creek	15	8	YES	YES	0	0	0	0	0	2	0	0	0	0	0
Orphan	?	?	NO	NO	0	0	0	0	0	0	0	0	0	0	0
Partridge Creek^j															
Sleepy Hollow	2	?	NO	NO	0	0	0	0	0	0	0	0	0	0	0
Stolle Meadows	4	?	NO	NO	0	0	0	0	0	2	0	0	0	0	0
Thunder Mountain	?	?	NO	NO	0	0	0	0	0	0	0	0	0	0	0
Wolf Fang	5	0	NO	NO	0	0	0	0	0	1	0	0	0	0	0
SUBTOTAL	81	40			0	7	1	0	0	12	4	0	1(1)	60(3)	4(3)
SUSPECTED PACK															
Oxbow^j															
SUBTOTAL	0	0			0	0	0	0	0	0	0	0	0	0	0
OTHER DOCUMENTED GROUP															
B219	0				0	0	0	0 ^k	0	0	0	0	0	0	0
B315	1				0	0	0	0	0	1	0	0	0	0	0
B327	1				0	0	0	0	0	1	1	0	6(1)	0	0
B349	1				0	2	1	0	0	0	1	0	1 ^l	0	0
SUBTOTAL	3	0			0	2	1	0	0	2	2	0	7(1)	0	0
UNKNOWN															
	?				0	1	0	1	0	0	0	0	0	0	0
SUBTOTAL	0	0			0	1	0	1	0	0	0	0	0	0	0
REGIONAL TOTAL	84	40			0	10	2	1	0	14	6	0	8(2)	60(3)	4(3)

^a Documented pack = territorial groups of wolves usually consisting of an adult male and female and their offspring from one or more generations, and has the potential to reproduce (2 adults of opposite sex). Suspected pack = geographic areas where wolf pack presence was suspected but not verified, or where wolf presence was verified but did not meet documented pack status. Other documented group = verified groups not meeting either documented or suspected pack

Table 4. Continued.

status (e.g., lone wolves, potential mated pairs, etc.). Unknown = geographic areas where wolf presence was previously unverified and/or no data on group status was known.

^b Summing this column does not equate to number of wolves estimated to be present in the population.

^c Number in parentheses indicates known pup mortality; pup mortalities tallied in the appropriate column in DOCUMENTED MORTALITIES.

^d Breeding pairs are the measure of Federal and State wolf recovery and management goals. A breeding pair is defined as “an adult male and a female wolf that have produced at least 2 pups that survive until December 31 of the year of their birth...”.

^e Includes agency lethal control and legal take.

^f Includes all other human-related deaths.

^g Does not include pups that disappeared before winter.

^h Includes wolves captured for monitoring purposes during 2007. Most, but not all, were radiocollared.

ⁱ Radiocollared wolves that became missing in 2007.

^j Group no longer considered extant due to agency lethal removal, lack of verified evidence for the preceding 2 years, or other cause.

^k B219's remains were located in 2007, but condition of the remains suggested wolf likely died in 2006.

^l Depredation occurred in Nampa Subregion.

Nampa Subregion of the Southwest Region

During 2007, the Nampa Subregion portion of the Southwest Region was home to 13 documented and 1 suspected wolf packs (Figure 9; Table 5). Eight documented packs were counted as breeding pairs. All 6 documented mortalities were human caused. Confirmed sheep losses were attributed to the Applejack, High Prairie, Packer John, Steel Mountain, and Timberline packs, and unknown wolves. Confirmed cattle losses were attributed to the documented High Prairie pack, the suspected Sweet Ola pack, and unknown wolves. Five wolves were removed in total from the High Prairie, Packer John, and Steel Mountain packs. Ten wolves were captured and radiocollared.

Law Enforcement Summary

Conservation Officers, in consultation with USFWS Special Agents, investigated 1 report of a dead wolf. This was a radiocollared wolf which was detected on mortality signal. It was determined to be illegally shot.

Documented Resident Packs

Applejack

Female B306 remained the sole radiocollared member of this pack throughout the year. She was captured during a control action resulting from 4 confirmed sheep losses during 2 depredation incidents. She was released unharmed as the control action called for removal of uncollared wolves only. Four gray pups were produced. This first-year pack had a minimum of 5 gray wolves and was counted as a breeding pair for 2007.

Archie Mountain

This pack was newly documented with the capture of B341 in the summer. Five gray pups were subsequently counted. This first-year pack had a minimum of 7 gray wolves and was counted as a breeding pair for 2007.



Archie Mountain pack on a winter day.

Michael Lucid

Bear Valley

One wolf was captured in this pack, resulting in a total of 2 radiocollared wolves, female B215 and male B332. The Bear Valley pack produced 4 gray pups. This fourth-year pack had a minimum of 14 gray wolves and was counted as a breeding pair for 2007.

Big Buck

Alpha female B255 remained the sole radiocollared member of this pack throughout the year. In the spring, IDFG personnel responded to citizens who were concerned because this pack was localized near a horse pasture. Hazing with cracker shells was successful at pushing the wolves from the area. The citizens were provided with a Radio-Activated Guard box, which is used for non-lethal hazing of wolves. Based on tracking evidence, biologists estimated at least 2 pups were produced. This second year pack had a minimum of 4 wolves and was counted as a breeding pair for 2007.



Big Buck pack at a stand off with an elk.

Michael Lucid

Calderwood

Alpha female B141 remained the sole radiocollared wolf in this pack. Ground monitoring led to an observation of 1 gray pup. This fourth-year pack contained a minimum of 4 gray wolves and was not counted as a breeding pair for 2007.

High Prairie

In April, a coyote trapper contacted IDFG to report he had incidentally captured a wolf. The wolf was female B170, a disperser from the Galena pack; she had last been detected as a member of the Galena pack in 2005. She appeared to have lactated in the past, suggesting her status as an alpha (breeder) in the High Prairie pack. She was fitted with a new radiocollar and released. In 2007, she produced at least 1 pup and two of her pack mates were removed in a control action that resulted from 8 confirmed sheep losses, 1 confirmed cattle depredation, and 1 probable dog

depredation. This newly documented pack had a minimum of 3 gray wolves and was not counted as a breeding pair for 2007.



B170 recovering nicely after capture.

Michael Lucid

No Man

This newly documented pack produced a minimum of 1 pup and contained a minimum of 2 adults. Multiple trapping attempts were unsuccessful. This pack was not counted as a breeding pair for 2007.

Packer John

Suspected alpha male B262's radio signal was detected on mortality in April. The cause of death was determined to be illegal take. This left alpha female B205 as the remaining radiocollared individual. B205 was recaptured in the summer and fitted with a GPS radiocollar. This pack produced a minimum of 3 pups. The Packer John pack was implicated in 21 confirmed sheep losses resulting in a control action which removed 1 uncollared wolf. This fourth-year pack had a minimum of 3 wolves (2 gray, 1 black) and was not counted as a breeding pair for 2007.



Packer John pack pups in the den.

Nate Borg

Scott Mountain

Multiple trapping attempts were unsuccessful in returning this pack to active monitoring status. Personnel conducting howling surveys heard a minimum of 2 pups and 2 adults respond to them while surveying an area near a historic rendezvous site. This seventh-year pack had a minimum of 4 wolves and counted as a breeding pair for 2007.

Steel Mountain

Alpha wolves B189 and R241 were being monitored at the onset of 2007. Subordinate male B271 had last been detected in late December 2006. He was not found in Idaho again, but was eventually observed in Yellowstone National Park in November 2007. At the end of 2007, he appeared to have paired with a dispersing female from the Slough Creek pack. During summer 2007, B325 was captured and fitted with a GPS radiocollar. This radiocollar automatically detached from the wolf's neck in the fall so it could be collected for data retrieval. Biologists counted a minimum of 2 pups in this pack. Two wolves were killed during a control action in response to livestock depredation of 9 confirmed sheep and 1 probable losses. B189 was also recaptured during the control action and was re-collared and released. This fifth-year pack had a minimum of 9 wolves (6 gray, 3 black) and was counted as a breeding pair for 2007.

Thorn Creek

This newly documented pack had 1 active radiocollared wolf, female B340. A minimum of 4 gray pups was produced. Pack size and prior tracking evidence indicated this pack may have been in existence since at least 2006. This pack contained a minimum of 12 gray wolves and was counted as a breeding pair for 2007.

Timberline

Two Timberline pack wolves, B265 and B266, were being monitored at the onset of 2007. However, both of these wolves were missing by the end of April. In June, a GPS radiocollar was fitted on B322. The Timberline pack produced at least 2 gray pups and was implicated in 9 confirmed and 4 probable sheep losses. This sixth-year pack had a minimum of 11 gray wolves and was counted as a breeding pair for 2007.

Warm Springs

Female B283 was the sole radiocollared member of this pack at the beginning of the year. In the fall, B283 was apparently disassociating from the pack. In November, she was seen with another wolf east of Stanley, Idaho, far from the Warm Springs pack's territory. A minimum of 1 pup was produced by the Warm Springs pack. In December, alpha female B109 was recaptured. Her non-functioning radiocollar was removed and she was fitted with a GPS radiocollar. This pack had a minimum of 5 gray wolves and did not count as a breeding pair for 2007.

Suspected Packs

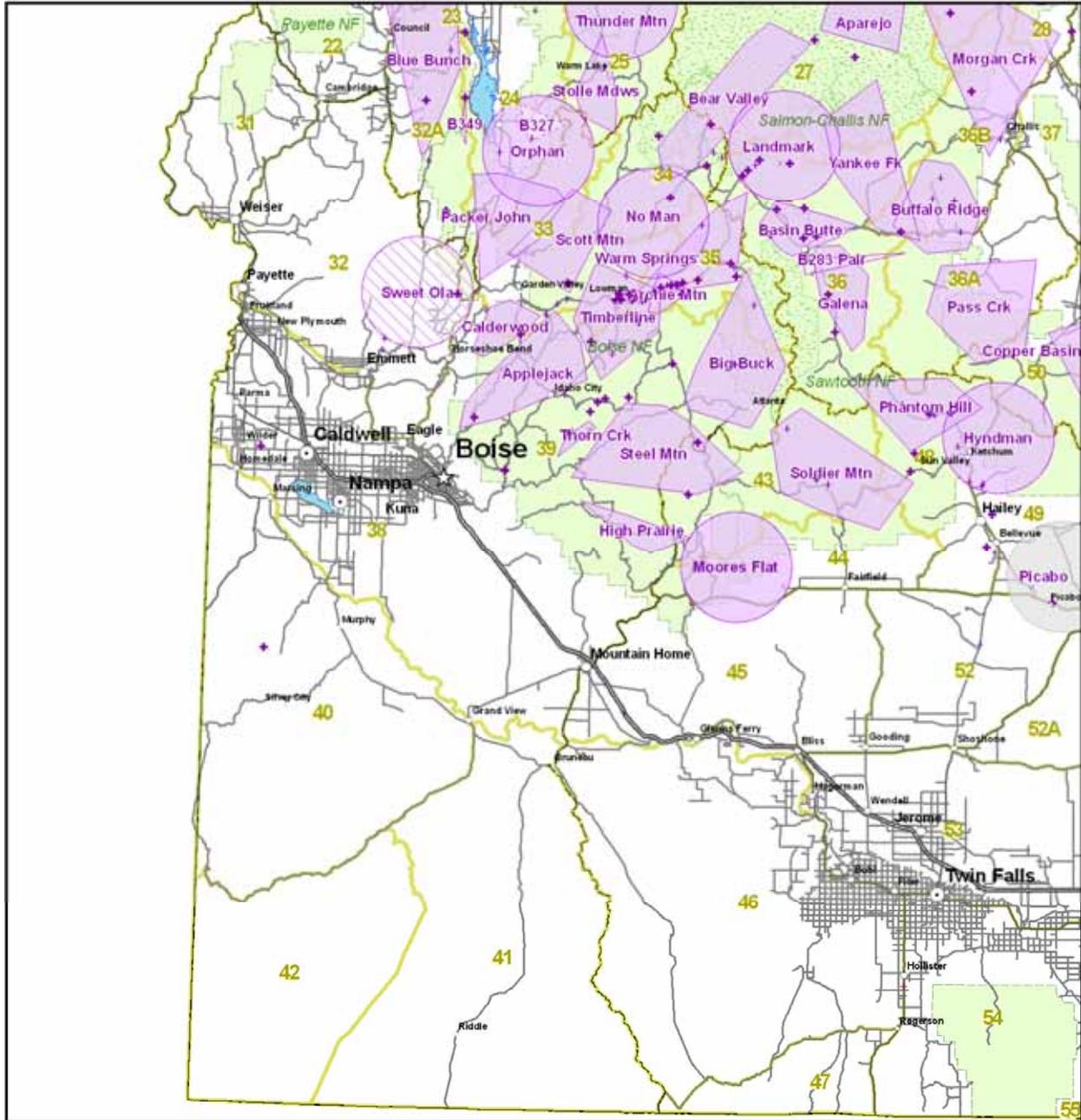
Sweet Ola

Multiple reports indicated there may be an undocumented pack in this area. There were 2 confirmed cattle depredations and 1 probable dog depredation in this area.

2007 Southwest Region Wolf Activity Telemetry, Documented and Suspected Locations

2006-07 Telemetry and Research-based Locations * 2007 Estimated Locations (Not Telemetry-based)** 2007 Public Observations ***

- | | | |
|--|--|--|
|  Documented Pack |  Documented Pack |  Multiple Wolves Observed |
|  Documented Group (Less than 4 animals) |  Documented Group (Pair or Group less than 4 animals) |  Single Wolf Sighted |
|  Documented Lone Wolf |  Suspected Pack |  Not Specified |
| |  Terminated Group | |



* Telemetry data and research locations collected and analyzed by Idaho Department of Fish and Game, the Nez Perce Tribe, Montana Department of Fish, Wildlife and Parks, Wildlife Services and the National Park Service. Pack locations are minimum convex polygons of telemetry and research observations for radiocollared wolves from 1/1/2006 - 12/31/2007 with outliers removed. Packs which did not exist in 2007 are excluded. This map is provided for management purposes and should not be used for data analysis. Do not release these data to third parties without first contacting the Idaho Department of Fish and Game or the Nez Perce Tribe

** Estimated Pack Activity determined by biologists from research locations, public observations and incidental observations from 1/1/2006 - 12/31/2007.

*** Public Observations from 1/1/2007 - 12/31/2007 collected on the Idaho Fish and Game website and reviewed by staff biologists.

Figure 9. Wolf pack activity and observations in the Nampa Subregion, 2007.

Table 5. Minimum number of wolves detected, reproductive status, mortality, dispersal, monitoring status, and livestock depredation for documented and suspected wolf packs and other wolf groups within Idaho Department of Fish and Game Nampa Subregion, 2007.

Wolf group ^a	Min. no. wolves detected ^b	Reproductive status			Documented mortalities				Known dispersal	Monitoring status			Confirmed & (probable) wolf-caused livestock losses		
		Min. no. pups prod. (died) ^c	Reported as		Natural	Control ^e	Other human ^f	Unknwn ^g		Active radio collars	No. wolf captures ^h	No. wolves missing ⁱ	Cattle	Sheep	Dogs
			reprod. pack	breeding pair ^d											
DOCUMENTED PACK															
Applejack	5	4	YES	YES	0	0	0	0	0	1	1	0	0	4	0
Archie Mountain	7	5	YES	YES	0	0	0	0	0	1	1	0	0	0	0
Bear Valley	14	4	YES	YES	0	0	0	0	0	2	1	0	0	0	0
Big Buck	4	2	YES	YES	0	0	0	0	0	1	0	0	0	0	0
Calderwood	4	1	YES	NO	0	0	0	0	0	1	0	0	0	0	0
High Prairie	3	1	YES	NO	0	2	0	0	0	1	1	0	1	8	(1)
No Man	3	1	YES	NO	0	0	0	0	0	0	0	0	0	0	0
Packer John	3	3	YES	NO	0	1	1	0	0	1	1	0	0	21 ^j	0
Scott Mountain	4	2	YES	YES	0	0	0	0	0	0	0	0	0	0	0
Steel Mountain	9	2	YES	YES	0	2	0	0	1	2	2	0	0	9(1)	0
Thorn Creek	12	4	YES	YES	0	0	0	0	0	1	1	0	0	0	0
Timberline	11	2	YES	YES	0	0	0	0	0	1	1	2	0	9(4)	0
Warm Springs	5	1	YES	NO	0	0	0	0	1	1	1	0	0	0	0
SUBTOTAL	84	32			0	5	1	0	2	13	10	2	1	51(5)	(1)
SUSPECTED PACK															
Sweet Ola	1				0	0	0	0	0	0	0	0	2	0	(1)
SUBTOTAL	1	0			0	0	0	0	0	0	0	0	2	0	(1)
UNKNOWN															
	?				0	0	0	0	0	0	0	0	0	5	0
SUBTOTAL	0	0			0	0	0	0	0	0	0	0	0	5	0
REGIONAL TOTAL	85	32			0	5	1	0	2	13	10	2	3	56(5)	(2)

^a Documented pack = territorial groups of wolves usually consisting of an adult male and female and their offspring from one or more generations, and has the potential to reproduce (2 adults of opposite sex). Suspected pack = geographic areas where wolf pack presence was suspected but not verified, or where wolf presence was verified but did not meet documented pack status. Other documented group = verified groups not meeting either documented or suspected pack status (e.g., lone wolves, potential mated pairs, etc.). Unknown = geographic areas where wolf presence was previously unverified and/or no data on group status was known.

^b Summing this column does not equate to number of wolves estimated to be present in the population.

^c Number in parentheses indicates known pup mortality; pup mortalities tallied in the appropriate column in DOCUMENTED MORTALITIES.

^d Breeding pairs are the measure of Federal and State wolf recovery and management goals. A breeding pair is defined as “an adult male and a female wolf that have produced at least 2 pups that survive until December 31 of the year of their birth...”.

^e Includes agency lethal control and legal take.

^f Includes all other human-related deaths.

^g Does not include pups that disappeared before winter.

Table 5. Continued.

^h Includes wolves captured for monitoring purposes during 2007. Most, but not all, were radiocollared.

ⁱ Radiocollared wolves that became missing in 2007.

^j Depredation occurred in McCall Subregion.

Magic Valley Region

During 2007, the Magic Valley Region was home to 4 documented wolf packs and 1 other documented wolf group. One documented pack counted as a breeding pair (Figure 10; Table 6). Eleven documented mortalities were the result of control actions, and 1 wolf was shot legally under the 10(j) Rule. Confirmed ($n = 9$) and probable ($n = 4$) cattle losses were attributed to the Moores Flat pack, and the Picabo group, which was subsequently removed. Confirmed ($n = 41$) and probable ($n = 7$) sheep losses were attributed to the Moores Flat, Phantom Hill, and Soldier Mountain packs, and unknown wolves. The Steel Mountain pack also killed sheep in the Magic Valley Region; however, these losses are recorded in the Nampa Subregion section (Table 5). Dog losses were attributed to the Moores Flat and Phantom Hill packs. Three wolves were captured and radiocollared in 2007.

Law Enforcement Summary

Conservation Officers investigated the shooting of a wolf harassing livestock; the take was considered a legal shooting under the 10(j) Rule. There was no documented illegal take in this region in 2007.

Documented Resident Packs

Hyndman

In 2005, agency personnel documented this pack as reproductive. Multiple reports indicated wolves may still be using this area in 2007, however, pack status could not be confirmed.

Moores Flat

This newly documented pack produced a minimum of 6 gray pups. One wolf was captured and radiocollared, but was subsequently lethally removed due to multiple livestock depredations. This pack was implicated in 4 confirmed cattle, 4 probable cattle, 27 confirmed sheep, and 1 confirmed dog depredations. A total of 9 wolves were removed. At the end of 2007, at least 2 wolves were believed to remain. This first-year pack was not counted as a breeding pair for 2007.

Phantom Hill

This pack began making its appearance in the Hailey, Idaho, area in late winter. One female (B326) and 1 male (B333) were captured during summer. This pack was confirmed to have killed 14 sheep and probably killed 3 additional sheep. They were confirmed to have killed 2 dogs. Biologists observed 3 black pups. This first-year pack had a minimum of 5 black wolves and was counted as a breeding pair for 2007.

Soldier Mountain

Subordinate female B192 and alpha male B149 were being monitored at the onset of 2007. B192 was last located during a June monitoring flight and has not been found since. Late winter flights indicated 2 gray wolves in this pack. Since a black wolf was not observed, black wolf B192 had likely either dispersed or was killed and her radiocollar destroyed. Biologists were unable to document reproduction despite repeated efforts. The Soldier Mountain pack was implicated in 3 probable sheep depredations. This sixth-year pack had a minimum of 2 gray wolves and was not counted as a breeding pair for 2007.

Other Documented Wolf Groups

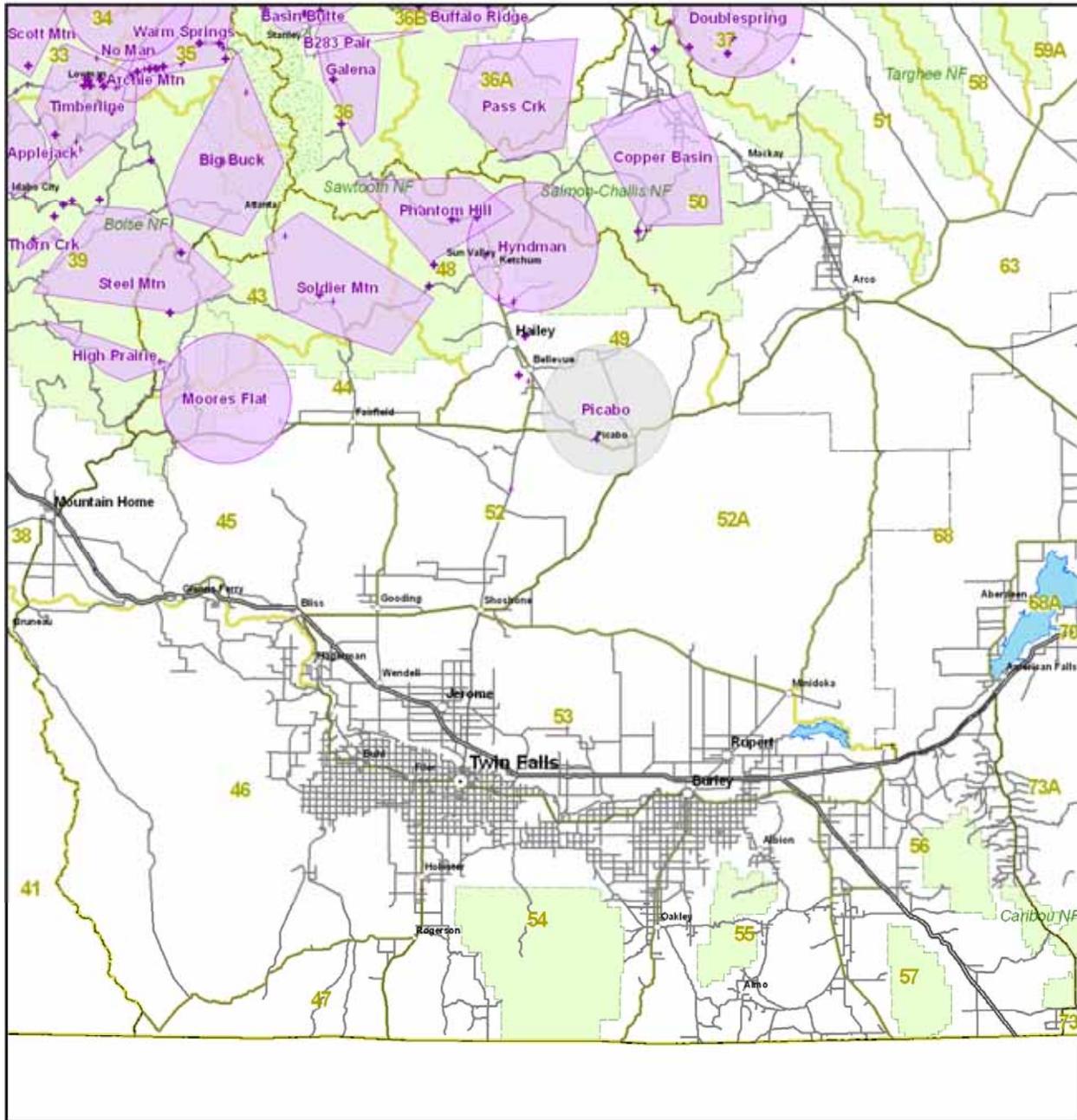
Picabo

This previously undocumented group was discovered when they depredated upon cattle ($n = 5$ confirmed) in the Picabo, Idaho, area. All 3 known wolves were removed (one shot legally under the 10(j) Rule and two removed by WS) from the area including Buffalo Ridge disperser B270. B270 had been missing since late December 2006. He was not found again until his death in 2007.

2007 Magic Valley Region Wolf Activity

2006-07 Telemetry and Research-based Locations * 2007 Estimated Locations (Not Telemetry-based)** 2007 Public Observations ***

- | | | |
|--|--|--------------------------|
| Documented Pack | Documented Pack | Multiple Wolves Observed |
| Documented Group (Less than 4 animals) | Documented Group (Pair or Group less than 4 animals) | Single Wolf Sighted |
| Documented Lone Wolf | Suspected Pack | Not Specified |
| | Terminated Group | |



* Telemetry data and research locations collected and analyzed by Idaho Department of Fish and Game, the Nez Perce Tribe, Montana Department of Fish, Wildlife and Parks, Wildlife Services and the National Park Service. Pack locations are minimum convex polygons of telemetry and research observations for radiocollared wolves from 1/1/2006 - 12/31/2007 with outliers removed. Packs which did not exist in 2007 are excluded. This map is provided for management purposes and should not be used for data analysis. Do not release these data to third parties without first contacting the Idaho Department of Fish and Game or the Nez Perce Tribe

** Estimated Pack Activity determined by biologists from research locations, public observations and incidental observations from 1/1/2006 - 12/31/2007.

*** Public Observations from 1/1/2007 - 12/31/2007 collected on the Idaho Fish and Game website and reviewed by staff biologists.

Figure 10. Wolf pack activity and observations in the Magic Valley Region, 2007.

Table 6. Minimum number of wolves detected, reproductive status, mortality, dispersal, monitoring status, and livestock depredation for documented and suspected wolf packs and other wolf groups within Idaho Department of Fish and Game Magic Valley Region, 2007.

Wolf group ^a	Min. no. wolves detected ^b	Reproductive status			Documented mortalities				Known dispersal	Monitoring status			Confirmed & (probable) wolf-caused livestock losses		
		Min. no. pups prod. (died) ^c	Reported as		Natural	Control ^e	Other human ^f	Unknwn ^g		Active radio collars	No. wolf captures ^h	No. wolves missing ⁱ	Cattle	Sheep	Dogs
			reprod. pack	breeding pair ^d											
DOCUMENTED PACK															
Hyndman	?	?	NO	NO	0	0	0	0	0	0	0	0	0	0	0
Moores Flat	2	6(5)	YES	NO	0	9	0	0	0	0	1	0	4(4)	27	1
Phantom Hill	5	3	YES	YES	0	0	0	0	0	2	2	0	0	14(3)	2
Soldier Mountain	2	?	NO	NO	0	0	0	0	0	1	0	1	0	(3)	0
SUBTOTAL	9	9(5)			0	9	0	0	0	3	3	1	4(4)	41(6)	3
OTHER DOCUMENTED GROUP															
Picabe ^j	0	0			0	3	0	0	0	0	0	0	5	0	0
SUBTOTAL	0	0			0	3	0	0	0	0	0	0	5	0	0
UNKNOWN															
	?				0	0	0	0	0	0	0	0	0	(1)	0
SUBTOTAL	0				0	0	0	0	0	0	0	0	0	(1)	0
REGIONAL TOTAL	9	9(5)			0	12	0	0	0	3	3	1	9(4)	41(7)	3

^a Documented pack = territorial groups of wolves usually consisting of an adult male and female and their offspring from one or more generations, and has the potential to reproduce (2 adults of opposite sex). Suspected pack = geographic areas where wolf pack presence was suspected but not verified, or where wolf presence was verified but did not meet documented pack status. Other documented group = verified groups not meeting either documented or suspected pack status (e.g., lone wolves, potential mated pairs, etc.). Unknown = geographic areas where wolf presence was previously unverified and/or no data on group status was known.

^b Summing this column does not equate to number of wolves estimated to be present in the population.

^c Number in parentheses indicates known pup mortality; pup mortalities tallied in the appropriate column in DOCUMENTED MORTALITIES.

^d Breeding pairs are the measure of Federal and State wolf recovery and management goals. A breeding pair is defined as “an adult male and a female wolf that have produced at least 2 pups that survive until December 31 of the year of their birth...”.

^e Includes agency lethal control and legal take.

^f Includes all other human-related deaths.

^g Does not include pups that disappeared before winter.

^h Includes wolves captured for monitoring purposes during 2007. Most, but not all, were radiocollared.

ⁱ Radiocollared wolves that became missing in 2007.

^j Group no longer considered extant due to agency lethal removal, lack of verified evidence for the preceding 2 years, or other cause.

Southeast Region

There were no established packs documented in the Southeast Region during 2007 (Figure 11). Observations of lone wolves have been reported over several years and a wolf was killed along the Utah border near Weston in 2003.

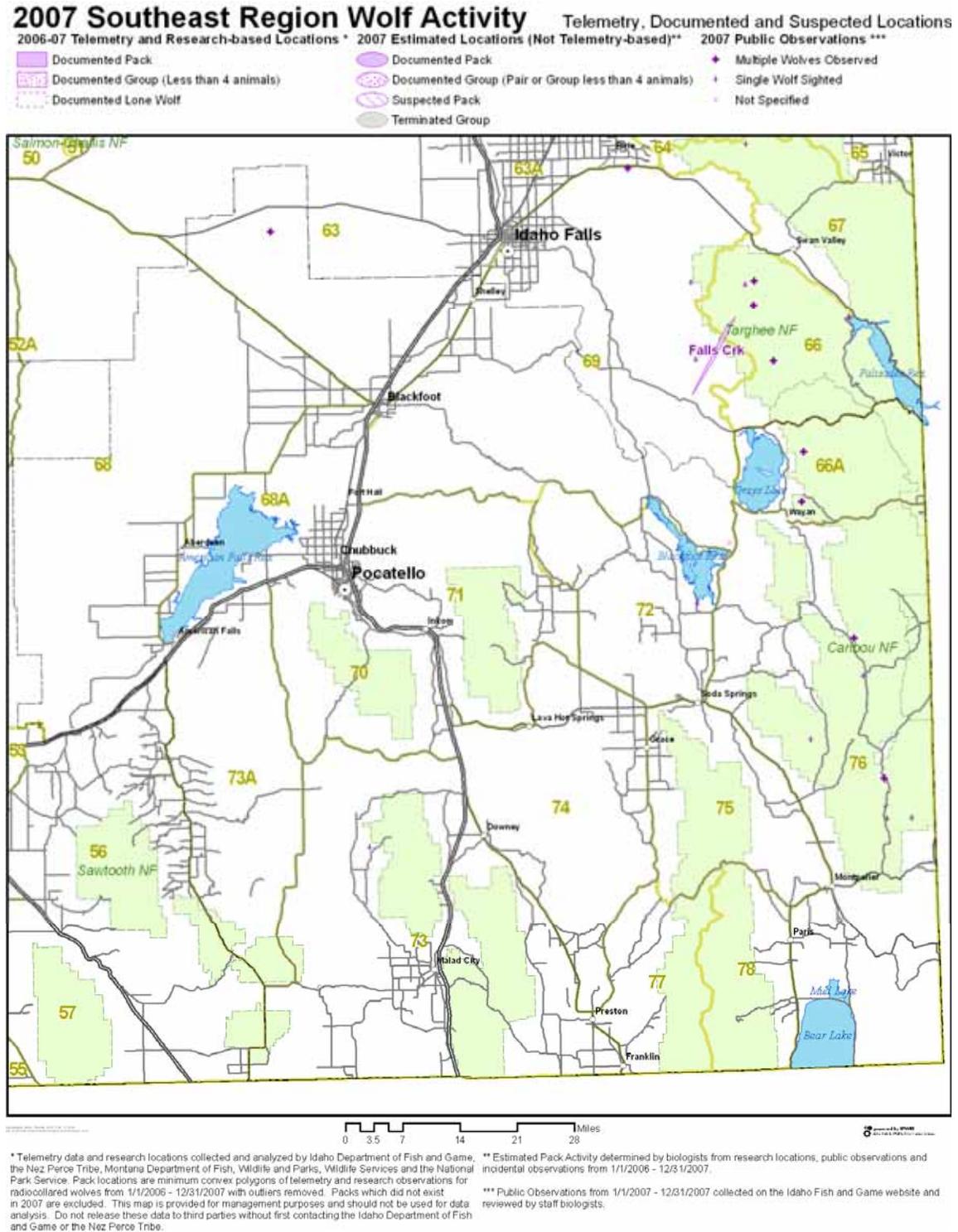


Figure 11. Wolf pack activity and observations in the Southeast Region, 2007.

Upper Snake Region

The Upper Snake Region was occupied by 3 documented resident packs, 1 documented border pack, and 1 suspected resident pack during 2007 (Figure 12; Table 7). While both the Biscuit Basin and Falls Creek packs reproduced, only the Biscuit Basin pack qualified as a breeding pair. The primary source of mortality was lethal control ($n = 8$), followed by other human ($n = 1$) and unknown ($n = 1$) causes. Confirmed and probable cattle and sheep losses were attributed to the Copper Basin and Falls Creek packs. One dog was confirmed killed by the Falls Creek pack. The Biscuit Basin pack was implicated in the wounding of 1 guard dog and the disappearance of another, but these could not be confirmed. There were also several other confirmed/probable depredations on cattle attributed to unknown groups of wolves. Two wolves were captured, resulting in the deployment of 1 radiocollar and 1 GPS collar.

Law Enforcement Summary

Conservation Officers investigated or assisted in investigating 2 wolf-related incidents. One wolf carcass was collected east of Ashton, Idaho, and determined to have been struck by a vehicle. A wolf radiocollar located on mortality during a monitoring flight was retrieved in March, but because the carcass was nearly entirely scavenged, cause of death was not determined.

Documented Resident Packs

Biscuit Basin

Consisting of 6 wolves in early winter 2006/2007, the radiocollared breeding female 340F was intermittently located from the air during spring and early summer. However, ground telemetry failed to locate the collared animal during the denning period, and several searches of the 2006 den location indicated the pack was no longer using the area. In July, a livestock producer reported 1 sheep guarding dog was injured and another was missing (later listed as probably wolf-killed); WS confirmed wolf involvement, and during the investigation detected the radiocollared wolf in the vicinity. Additional attempts were made to determine the reproductive status during July, and while multiple adults were observed on 1 occasion, no pups were seen. In August, a WS pilot located 340F and observed her with 2 pups, qualifying this pack as a breeding pair. Aerial observations in December indicated this pack consisted of a minimum of 5 wolves.

Copper Basin

Lethal control resulted in the removal of all known adults by September 2006, leaving only a subadult wolf and pups. In December, adult male B253 joined this pack, presumably assuming the role as the pack's breeding male. However, that position was short-lived when B253 and a pup were lethally controlled in February after 2 calves were confirmed killed by this pack. Another pup, male B305, was found dead of unknown causes in late winter. Confirmed livestock depredations in spring, 3 confirmed and 2 probable cattle losses, initiated efforts to determine whether this pack had reproduced, as it was unknown whether or not any other breeding-aged wolves had joined with the pack. Because no pups or indication of denning was found, and given this pack's history of chronic depredations, the decision was made to remove the pack. In May, 4 wolves were removed, leaving only a radiocollared subadult, wolf B304. Collaboration with local livestock producers resulted in the consensus opinion that a radiocollared wolf should be left in the area to monitor future wolf activity. As such, B304 was

recaptured in May and fitted with a GPS radiocollar so that aerial observations might indicate if new wolves were attempting to establish themselves in the area, as well as to investigate wolf-livestock interactions. An aerial observation during winter counts found 3 wolves in this group, resulting in the Copper Basin pack being maintained on the regional pack list.

Falls Creek

Newly documented in 2007, this pack's presence was suspected, but remained unconfirmed until a dog that had been tied up near a camp trailer was killed by wolves. Wildlife Services initiated a trapping effort, which resulted in the capture of an apparently reproductive female. While processing the wolf, a single pup was observed. In August, the suspected breeding male was opportunistically killed by a WS' agent at a depredation site where 2 sheep were confirmed killed. After the initial observation of the single pup, sporadic ground and aerial observations turned up only adult wolves. A December telemetry flight again indicated only 2 adult wolves, thus precluding this pack from qualifying as a breeding pair.

Documented Border Packs

Bechler (WY)

This documented border pack was tallied for Wyoming for 2007. See the respective State's annual report for information on this pack.

Suspected Resident Packs

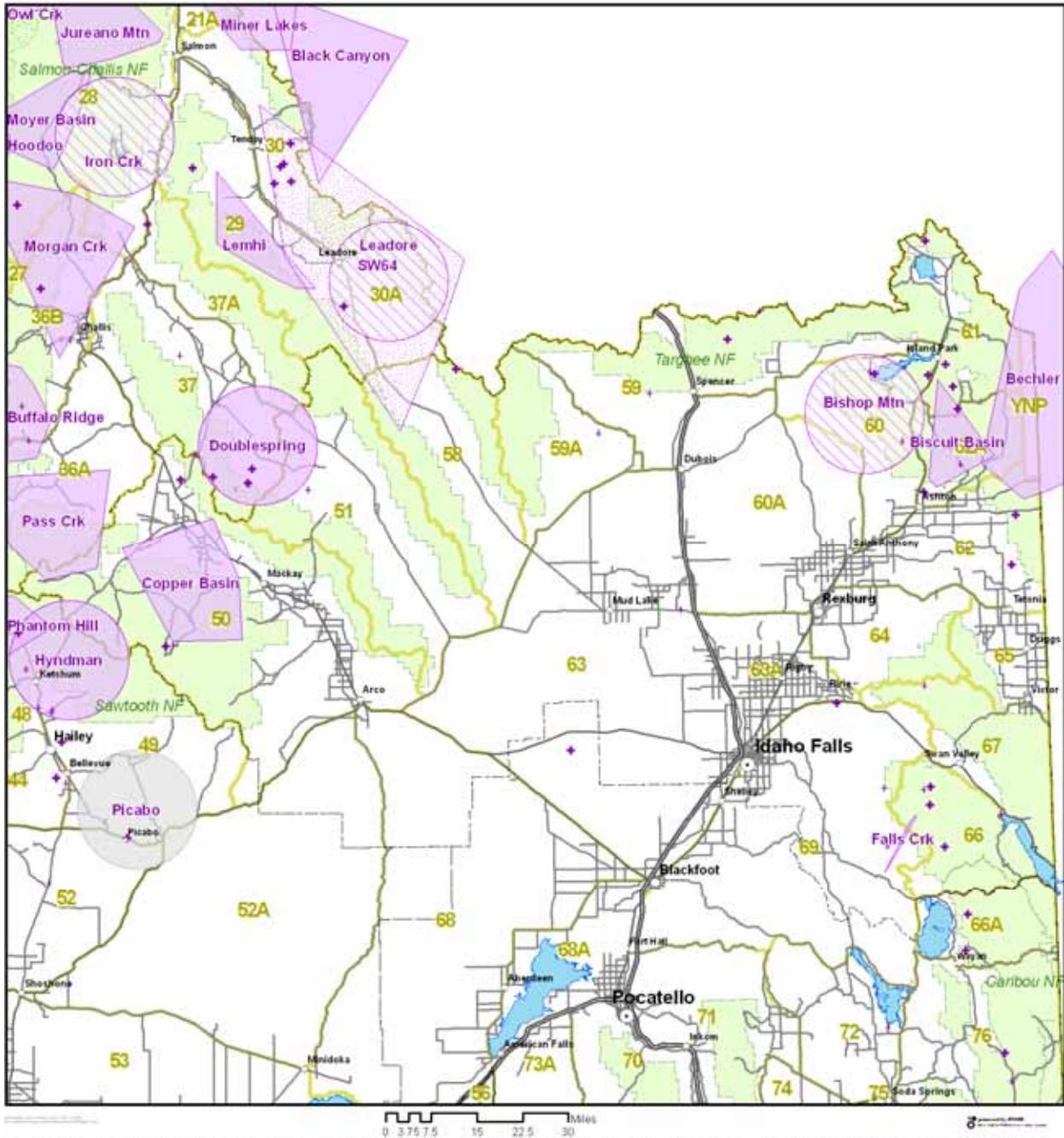
Bishop Mountain

Bishop Mountain was a suspected pack that appeared to be derived from the Nez Perce pack of Yellowstone National Park. The only radiocollared wolf in this group was last located in September 2005. There were no radiocollared wolves in this group during 2007, and therefore reproduction was not verified. Sightings of multiple wolves have been reported in the range thought to be occupied by this pack, indicating their continued presence.

2007 Upper Snake Region Wolf Activity

2006-07 Telemetry and Research-based Locations * 2007 Estimated Locations (Not Telemetry-based)** 2007 Public Observations ***

- Documented Pack
- Documented Group (Less than 4 animals)
- Documented Lone Wolf
- Documented Pack
- Documented Group (Pair or Group less than 4 animals)
- Suspected Pack
- Terminated Group
- + Multiple Wolves Observed
- + Single Wolf Sighted
- + Not Specified



* Telemetry data and research locations collected and analyzed by Idaho Department of Fish and Game, the Nez Perce Tribe, Montana Department of Fish, Wildlife and Parks, Wildlife Services and the National Park Service. Pack locations are minimum convex polygons of telemetry and research observations for radio-collared wolves from 1/1/2006 - 12/31/2007 with outliers removed. Packs which did not exist in 2007 are excluded. This map is provided for management purposes and should not be used for data analysis. Do not release these data to third parties without first contacting the Idaho Department of Fish and Game or the Nez Perce Tribe.

** Estimated Pack Activity determined by biologists from research locations, public observations and incidental observations from 1/1/2006 - 12/31/2007.

*** Public Observations from 1/1/2007 - 12/31/2007 collected on the Idaho Fish and Game website and reviewed by staff biologists.

Figure 12. Wolf pack activity and observations in the Upper Snake Region, 2007.

Table 7. Minimum number of wolves detected, reproductive status, mortality, dispersal, monitoring status, and livestock depredation for documented and suspected wolf packs and other wolf groups within Idaho Department of Fish and Game Upper Snake Region, 2007.

Wolf group ^a	Min. no. wolves detected ^b	Reproductive status			Documented mortalities				Known dispersal	Monitoring status			Confirmed & (probable) wolf-caused livestock losses		
		Min. no. pups prod. (died) ^c	Reported as		Natural	Control ^e	Other human ^f	Unknwn ^g		Active radio collars	No. wolf captures ^h	No. wolves missing ⁱ	Cattle	Sheep	Dogs
			reprod. pack	breeding pair ^d											
DOCUMENTED PACK															
Bechler (WY) ^j															
Biscuit Basin	5	2	YES	YES	0	0	0	0	0	1	0	0	0	0	(1)
Copper Basin	3	0	NO	NO	0	6	0	1	0	1	1	0	5(2)	0	0
Falls Creek	2	1	YES	NO	0	1	0	0	0	1	1	0	0	2	1
SUBTOTAL	10	3			0	7	0	1	0	3	2	0	5(2)	2	1(1)
SUSPECTED PACK															
Bishop Mountain	?				0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0			0	0	0	0	0	0	0	0	0	0	0
UNKNOWN															
	?				0	1	1	0	0	0	0	0	9(3)	0	0
SUBTOTAL	0	0			0	1	1	0	0	0	0	0	9(3)	0	0
REGIONAL TOTAL	10	3			0	8	1	1	0	3	2	0	14(5)	2	1(1)

^a Documented pack = territorial groups of wolves usually consisting of an adult male and female and their offspring from one or more generations, and has the potential to reproduce (2 adults of opposite sex). Suspected pack = geographic areas where wolf pack presence was suspected but not verified, or where wolf presence was verified but did not meet documented pack status. Other documented group = verified groups not meeting either documented or suspected pack status (e.g., lone wolves, potential mated pairs, etc.). Unknown = geographic areas where wolf presence was previously unverified and/or no data on group status was known.

^b Summing this column does not equate to number of wolves estimated to be present in the population.

^c Number in parentheses indicates known pup mortality; pup mortalities tallied in the appropriate column in DOCUMENTED MORTALITIES.

^d Breeding pairs are the measure of Federal and State wolf recovery and management goals. A breeding pair is defined as “an adult male and a female wolf that have produced at least 2 pups that survive until December 31 of the year of their birth...”.

^e Includes agency lethal control and legal take.

^f Includes all other human-related deaths.

^g Does not include pups that disappeared before winter.

^h Includes wolves captured for monitoring purposes during 2007. Most, but not all, were radiocollared.

ⁱ Radiocollared wolves that became missing in 2007.

^j Border pack officially tallied to (STATE); territory known/likely shared with Idaho. Data on these packs can be found in Rocky Mountain Wolf Recovery 2007 Annual Report. Data for mortalities and/or depredations by non-Idaho border packs that occurred within Idaho are presented here.

Salmon Region

The Salmon Region was occupied by 14 documented resident, 6 documented border (one tallied to Idaho and five to Montana), and 2 suspected packs during 2007 (Figure 13; Table 8). Of the 11 packs confirmed to have reproduced, 8 qualified as breeding pairs. Lethal control ($n = 12$) and other human-related ($n = 6$) causes were the only documented sources of mortality. Five resident packs were responsible for 11 confirmed and 4 probable cattle losses. An additional 10 cattle were categorized as confirmed ($n = 7$) and probable ($n = 3$) wolf-kills by suspected packs or unknown wolves. The Lemhi and Galena packs were confirmed to have killed nine and two sheep, respectively. Eleven wolves were captured, resulting in the deployment of 6 VHF and 4 GPS radiocollars.

Law Enforcement Summary

Conservation Officers, in consultation with USFWS Special Agents, investigated or responded to 12 reports involving wolves. Three wolves investigated were determined to be legally shot under provisions of the 10(j) Rule. A fourth wolf was legally shot in self defense after approaching a hunter to within 10 feet. Four wolves were determined to be illegally killed. One wolf was investigated and determined to have been struck by a vehicle. Officers also investigated 3 additional reports of dead wolves, but no carcasses were found.

Documented Resident Packs

Aparejo

Aerial locations in spring 2007 indicated this pack denned near where 2 wolves were captured and radiocollared in 2006. However, due to the remoteness of the location, the suspected den area was not surveyed to confirm reproduction. As such, this pack was not counted as a breeding pair. Winter aerial counts indicated a minimum of 13 wolves in this pack.

Basin Butte

The Basin Butte pack once again denned in the foothills northeast of Stanley, Idaho, raising a litter of 5 pups. Despite numerous cattle in the area, this pack was not implicated in any livestock depredations, which may be due to extensive monitoring and hazing by volunteers over the course of the spring and summer. One wolf was illegally killed (female B313) in June, resulting in an individual being ticketed for the offense. Aerial observations in winter indicated at least 13 wolves in this pack, which qualified as a breeding pair.

Buffalo Ridge

Consisting of at least 6 wolves in early 2007, this pack was decreased by one with the disappearance of radiocollared wolf B270 sometime in early winter. Wolf B270's whereabouts was later discovered after multiple depredations by unknown wolves near Picabo, Idaho, resulted in the lethal removal of B270 and 2 others in March. The Buffalo Ridge pack denned in the vicinity of their 2006 den location. Concurrent with a capture effort, 7 pups were observed. Trapping resulted in the capture and radiocollaring of a black yearling male, bringing to two the number of wolves being monitored in the pack. The Buffalo Ridge wolves were implicated in 1 probable and 1 confirmed depredation in spring; another 2 calves were confirmed killed in 2 incidents by the pack in December. As a result, 2 wolves were lethally removed. Aerial counts indicated a minimum of 6 wolves by the end of 2007, and this pack was counted as a breeding pair.

Castle Peak

The status of this pack has been unknown since the disappearance of B195, the only radiocollared wolf in the pack, in March 2004. After the disappearance of this pack, another pack (*see* Pass Creek) has since been radiocollared and located within the East Fork Salmon River drainage, an area that was traversed by the Castle Peak pack. The possibility remains that the 2 packs are one and the same. However, it seems unlikely that the question will ever be resolved, and given the unlikely probability of 2 packs residing so closely together, the Castle Peak pack is being dropped from the regional list and replaced by the Pass Creek pack.

Doublespring

Numerous sightings of wolves and wolf sign in the upper Pahsimeroi River Valley in fall resulted in the addition of this newly verified pack to the Salmon Region. In October, reputable observers reported seeing 8 wolves, one of which was a pup. Future attempts to place a radiocollar in this pack will facilitate determining if these wolves reside primarily in the Salmon Region, or if they also cross the boundary into the Upper Snake Region. As only 1 pup was counted, this pack was not counted as a breeding pair.

Galena

This pack's status was unknown for much of 2007, as the sole radiocollared wolf was located only once in May before going missing entirely. However, 8 pups were observed opportunistically at a traditional rendezvous site. Trapping was initiated after depredations of cattle and sheep (1 probable cattle, 2 confirmed sheep) indicated their presence at another known rendezvous site, and 2 male pups were captured and fitted with radiocollars (1 radiocollared wolf subsequently went missing shortly after it was instrumented). One wolf was later lethally removed as a result of the livestock depredations. This pack consisted of a minimum of 12 wolves by the end of 2007, and was counted as a breeding pair.

Hoodoo

Similar to 2006, aerial locations indicated the Hoodoo pack denned in their traditional location along the Middle Fork Salmon River, but the site's remoteness made it infeasible to survey for reproduction. With only 1 radiocollared wolf being monitored in the pack, several attempts were made during summer to locate the pack with the intent of trapping and radiocollaring, with limited success; while reproduction was verified during one of these efforts (a minimum of 3 pups counted), the wolves moved off before traps could be set. A minimum of 13 wolves was counted in the pack during winter counts, and was listed as a breeding pair.

Jureano Mountain

The disappearance of wolf B223 in spring left this pack without a radiocollared member, prompting efforts to locate this pack for trapping and radiocollaring. Searches for wolf presence at traditional den and rendezvous site locations in early summer eventually resulted in the successful location of the pack, and trapping was immediately initiated. Unfortunately, 2 pups were inadvertently trapped, causing the pack to move from the area. However, a subadult male was trapped near the abandoned rendezvous site and fitted with a GPS radiocollar to provide data for a research project investigating alternative wolf population monitoring techniques. In August, the Jureano Mountain pack was involved in 4 WS' investigations of depredations that resulted in the confirmation of 5 dead cattle. Three wolves were lethally controlled in response. Other mortality included an adult female wolf killed illegally in January. Although 2 pups were verified, temporarily fulfilling the breeding pair requirement, a pup was lethally removed during

control efforts. This could conceivably have reduced the number of pups in the pack to one, and without verification there were additional pups beyond the two initially observed, this pack was not counted as a breeding pair. The radiocollared wolf could not be located during winter aerial counts, and thus a pack size was not determined.

Landmark

The Landmark pack has not been monitored via radiocollared wolves since 2003. However, due to the fidelity this pack exhibits for den/rendezvous site locations, their continued presence has been confirmed in the past via ground surveys at these locations. A survey in September of a previously used rendezvous site revealed ample evidence that the Landmark pack reproduced. However, since no pups were observed, it was not possible to determine whether or not there were at least 2 pups produced to fulfill the breeding pair requirement; as such, this pack was considered as reproductive, but not a breeding pair.



An adult wolf from an unknown pack poses for a picture in a frosty meadow near Cape Horn.

Jason Husseman

Lemhi

In their second year as a documented pack, the Lemhi pack was reduced to 2 individuals due to mortality attributed to lethal control, legal and illegal take. In January, a pup was illegally killed after being caught inadvertently in a bobcat trap. In May, another wolf was legally shot among a landowner's sheep; the livestock owner had lost 6 sheep to wolves the previous day. After another confirmed sheep depredation (1 loss), WS lethally removed a black female from this pack. A third depredation in June resulted in 2 more confirmed sheep kills. This pack did not appear to reproduce, and was not a breeding pair in 2007.

Morgan Creek

The Morgan Creek pack was without radiocollared individuals and its status was unknown for most of 2007. In February, 2 calves were investigated by WS and listed as probable wolf kills, presumably by the Morgan Creek pack. After another confirmed calf kill in April, WS attempted to trap and radiocollar a wolf; 1 wolf was temporarily caught, but managed to pull out of the trap before it could be anesthetized. Reports of wolf activity in the Morgan Creek drainage in July initiated efforts to locate, capture, and radiocollar members of this pack. In July, 2 wolves were captured and fitted with GPS (*see* Research section) and VHF radiocollars. On the morning of the first capture, several adults and a minimum of 2 pups were heard howling nearby, substantiating reports by a range rider that the pack had reproduced and had a rendezvous site in an adjacent tributary. Due to livestock conflicts, the radiocollared animals were short-lived; female wolf B334 was legally shot by the range rider 2 weeks later when seen harassing cattle. The second radiocollared wolf was killed by WS along with another uncollared wolf in August after this pack's second confirmed cattle depredation of the year. Although no year-end aerial counts could be obtained, this pack was estimated to contain at least 5 individuals and was verified as a breeding pair for 2007.

Moyer Basin

This longstanding pack in the Salmon Region was targeted for helicopter capture concurrent to winter elk surveys, and in January, an adult male was successfully darted and fitted with a radiocollar. In spring, the pack denned near their 2006 den site, raising a litter of 5 pups. In June, a subadult female was captured and fitted with a GPS radiocollar. Unfortunately, the radiocollar failed shortly after deployment, necessitating the capture of another wolf. In a second effort, a pup too small for radiocollaring was captured, causing the pack to abandon their rendezvous site. Several weeks later, another attempt was made at the pack's new rendezvous site, resulting in the capture of the same pup previously caught. However, the pup had grown sufficiently large enough to justify placing a GPS radiocollar on the animal. The Moyer Basin pack was responsible for wounding a domestic calf in September, which later died from its wounds. This pack consisted of a minimum of 10 wolves by the end of 2007 and was a documented breeding pair.



Pups from the Moyer Basin pack playing on a warm summer afternoon.

Jason Husseman

Owl Creek

The uncollared Owl Creek pack was slated to be removed from the regional list due to the lack of any verified wolf activity since their discovery in 2005. Due to reports from the public, however, tracks of multiple wolves were confirmed by IDFG personnel in the area believed to be occupied by this pack. While the Owl Creek pack's status as a breeding pair remained unknown, they continued to count as a verified pack for the region.

Pass Creek

In January, the suspected breeding female from this pack was darted from a helicopter concurrent to ungulate capture operations for an IDFG elk research project (see Research section). Aerial telemetry indicated this pack denned in a tributary of the East Fork Salmon River, and reproduction was verified when 3 pups were observed from the air during an August monitoring flight. Aerial telemetry collected over the course of the year indicated this pack ranged over an area used in years previous by the Castle Peak pack, prompting them to be dropped from the regional list (*see* Castle Peak). One wolf was found in January that had been illegally killed within the Pass Creek pack's territory, presumably as a member of this pack. By year's end, a minimum of 8 wolves resided in this pack, which also qualified as a breeding pair.



An uncommon color phase, white female wolf B317 of the Pass Creek pack recuperates from anesthesia after being captured and fitted with a radiocollar.

Jason Husseman

Twin Peaks

Due to lack of verified wolf activity for 2 consecutive years, the Twin Peaks pack was dropped from the regional pack list.

Yankee Fork

The Yankee Fork pack was located intermittently in winter 2006/2007, but the radiocollared wolf, male B240, was missing for most of the summer and fall. Although several attempts were

made over the course of the field season to locate and determine the reproductive status of this pack, all efforts were unsuccessful. Without an aerial location for over 6 months, it seemed likely the radiocollared animal was either gone or its radiocollar had malfunctioned. Therefore, it came as somewhat of a surprise when B240's radio signal was detected loud and clear during a December monitoring flight, allowing IDFG personnel to observe 11 wolves in the pack. Because of their unknown reproductive status, the Yankee Fork pack was not considered a breeding pair.

Documented Border Packs

Battlefield (MT)

This documented border pack was tallied for Montana for 2007. See the respective State's annual report for information on this pack.

Black Canyon (MT)

This documented border pack was tallied for Montana for 2007. See the respective State's annual report for information on this pack.

Hughes Creek (ID)

Howling surveys conducted in July near this pack's previously known den/rendezvous site indicated the presence of a minimum of 2 pups. Another attempt to obtain a better pup count was unsuccessful, although visual confirmation of at least 2 pups was made. During fall, a hunter killed a wolf in self defense after it approached within 15 feet of him. Aerial counts indicated a minimum of 11 wolves in the pack, which also qualified as a breeding pair.

Miner Lakes (MT)

This documented border pack was tallied for Montana for 2007. See the respective State's annual report for information on this pack.

Painted Rocks (MT)

This documented border pack was tallied for Montana for 2007. See the respective State's annual report for information on this pack.

Sula (MT)

This documented border pack was tallied for Montana for 2007. See the respective State's annual report for information on this pack.

Suspected Resident Packs

Iron Creek

Numerous observations of wolves and confirmed wolf depredations over the past 2 years indicated the likely presence of a pack of wolves southwest of Salmon, Idaho. There were 3 confirmed and 1 probable cattle losses in this locale in 2007. With no confirmed activity from adjacent radiocollared packs near where these depredations or sightings have occurred, it appeared likely a pack has taken up residence in what was previously unoccupied territory along the west side of the Salmon River.

Leadore

Sporadic sightings of wolves and wolf sign continued to be reported from this location. However, reported wolf activity was reduced from 2006, when the suspected breeding pair of this unknown pack of wolves was killed near a ranch southeast of Leadore, Idaho. Three cattle were confirmed killed in September in the area thought to be inhabited by this suspected pack.

Other Documented Wolf Groups

B07

Thought to be one of the last surviving wolves of the original 35 that were released into Idaho in 1995 and 1996, B07 was found dead in January in a gulch next to the highway north of Salmon, Idaho. A necropsy of the carcass indicated the wolf was likely struck by a car. Because of the fact the wolf's teeth were so extensively worn, it's likely this animal was no longer able to capture prey and was subsisting on road-killed animals, thus potentially predisposing it to being hit by a vehicle. Wolf B07 and his mate B11 were the founding pair of the Big Hole pack, first in the Big Hole of Montana, and then along the Idaho-Montana divide after he and B11 were relocated due to livestock conflicts. The radiocollar B07 was wearing failed some time in 2003 while still a member of the Big Hole pack, and his status was unknown (though it was likely he was observed there in 2005) until his carcass was eventually discovered by bird hunters. It was presumed that he was displaced as the breeding male of the pack by a younger wolf, and was roaming the mountains of Idaho and Montana as a lone wolf until his death.

B283

Female wolf B283 dispersed from the Warm Springs pack in fall, and was observed from the air with another uncollared wolf on several occasions in the vicinity of Stanley, Idaho. By winter, this pair appeared to be attempting to establish a territory within the Sawtooth National Recreation Area along the White Cloud Peaks range. Additional aerial locations will facilitate determining whether this pair is successful in locating unoccupied range within an area that already supports several packs.

B290

After being captured in summer 2006 as a member of the Morgan Creek pack, female B290 most likely dispersed some time in late fall or early winter 2006/2007. She was located in February near the Hughes Creek pack, well north of her natal pack's territory. B290's signal was not detected thereafter, and she is considered missing.

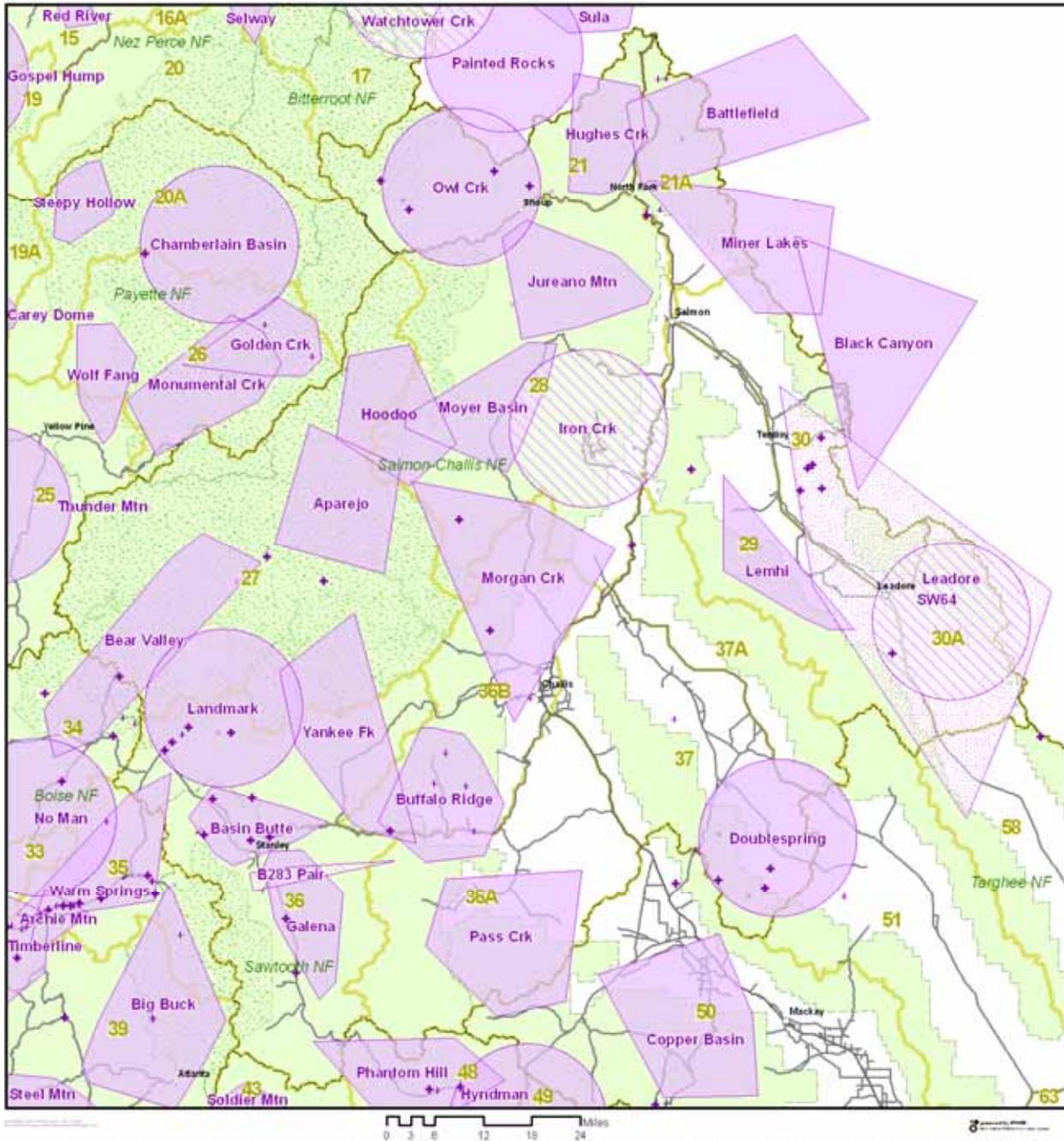
SW-64

A dispersing wolf from the Sage Creek pack of Montana, telemetry locations in 2007 indicated SW-64 was spending time in both Idaho and Montana in the upper Lemhi River drainage. Thought to be a lone wolf after the female he was traveling with was killed in November 2006, SW-64 was observed from the air in October with another wolf.

2007 Salmon Region Wolf Activity

Telemetry, Documented and Suspected Locations

- 2006-07 Telemetry and Research-based Locations * 2007 Estimated Locations (Not Telemetry-based)** 2007 Public Observations ***
- Documented Pack
 - Documented Group (Less than 4 animals)
 - Documented Lone Wolf
 - Documented Pack
 - Documented Group (Pair or Group less than 4 animals)
 - Suspected Pack
 - Terminated Group
 - Multiple Wolves Observed
 - Single Wolf Sighted
 - Not Specified



* Telemetry data and research locations collected and analyzed by Idaho Department of Fish and Game, the Nez Perce Tribe, Montana Department of Fish, Wildlife and Parks, Wildlife Services and the National Park Service. Pack locations are minimum convex polygons of telemetry and research observations for radio-collared wolves from 1/1/2006 - 12/31/2007 with outliers removed. Packs which did not exist in 2007 are excluded. This map is provided for management purposes and should not be used for data analysis. Do not release these data to third parties without first contacting the Idaho Department of Fish and Game or the Nez Perce Tribe.

** Estimated Pack Activity determined by biologists from research locations, public observations and incidental observations from 1/1/2006 - 12/31/2007.

*** Public Observations from 1/1/2007 - 12/31/2007 collected on the Idaho Fish and Game website and reviewed by staff biologists.

Figure 13. Wolf pack activity and observations in the Salmon Region, 2007.

Table 8. Minimum number of wolves detected, reproductive status, mortality, dispersal, monitoring status, and livestock depredation for documented and suspected wolf packs and other wolf groups within Idaho Department of Fish and Game Salmon Region, 2007.

Wolf group ^a	Min. no. wolves detected ^b	Reproductive status			Documented mortalities				Known dispersal	Monitoring status			Confirmed & (probable) wolf-caused livestock losses		
		Min. no. pups prod. (died) ^c	Reported as		Natural	Control ^e	Other human ^f	Unknwn ^g		Active radio collars	No. wolf captures ^h	No. wolves missing ⁱ	Cattle	Sheep	Dogs
			reprod. pack	breeding pair ^d											
DOCUMENTED PACK															
Aparejo	13	?	NO	NO	0	0	0	0	0	1	0	0	0	0	0
Basin Butte	13	5	YES	YES	0	0	1	0	0	2	0	0	0	0	0
Battlefield (MT) ^j															
Black Canyon (MT) ^j															
Buffalo Ridge	6	7	YES	YES	0	2	0	0	1	2	1	0	3(1)	0	0
Castle Peak ^k															
Doublespring	8	1	YES	NO	0	0	0	0	0	0	0	0	0	0	0
Galena	12	8	YES	YES	0	1	0	0	0	1	2	2	(1)	2	0
Hoodoo	13	3	YES	YES	0	0	0	0	0	1	0	0	0	0	0
Hughes Creek (ID) ^j	11	2	YES	YES	0	0	1	0	0	1	0	0	0	0	0
Jureano Mountain	?	2(1)	YES	NO	0	3	1	0	0	1	1	1	5	0	0
Landmark	?	1	YES	NO	0	0	0	0	0	0	0	0	0	0	0
Lemhi	2	?	NO	NO	0	2	1	0	0	1	0	0	0	9	0
Miner Lakes (MT) ^j															
Morgan Creek	5	2	YES	YES	0	3	0	0	0	0	2	0	2(2)	0	0
Moyer Basin	10	5	YES	YES	0	0	0	0	0	3	4	1	1	0	0
Owl Creek	?	?	NO	NO	0	0	0	0	0	0	0	0	0	0	0
Painted Rocks (MT) ^j															
Pass Creek	8	3	YES	YES	0	0	1	0	0	2	1	0	0	0	0
Sula (MT) ^j															
Twin Peaks ^k															
Yankee Fork	11	?	NO	NO	0	0	0	0	0	1	0	0	0	0	0
SUBTOTAL	112	39(1)			0	11	5	0	1	16	11	4	11(4)	11	0
SUSPECTED PACK															
Iron Creek	?				0	0	0	0	0	0	0	0	3(1)	0	0
Leadore	?				0	0	0	0	0	0	0	0	3	0	0
SUBTOTAL	0				0	0	0	0	0	0	0	0	6(1)	0	0
OTHER DOCUMENTED GROUP															
B7	0				0	0	1	0	0	0	0	0	0	0	0
B283	2				0	0	0	0	0	0	0	0	0	0	0
B290	?				0	0	0	0	0	0	0	1	0	0	0
SW-64	2				0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	4	0			0	0	1	0	0	0	0	1	0	0	0

Table 8. Continued.

Wolf group ^a	Min. no. wolves detected ^b	Reproductive status		Documented mortalities				Known dispersal	Monitoring status			Confirmed & (probable) wolf-caused livestock losses			
		Min. no. pups prod. (died) ^c	Reported as		Natural	Control ^e	Other human ^f		Unknwn ^g	Active radio collars	No. wolf captures ^h	No. wolves missing ⁱ	Cattle	Sheep	Dogs
			reprod. pack	breeding pair ^d											
UNKNOWN															
	?				0	1	0	0	0	0	0	0	1(2)	0	0
SUBTOTAL	0	0			0	1	0	0	0	0	0	0	1(2)	0	0
REGIONAL TOTAL	116	39(1)			0	12	6	0	1	16	11	5	18(7)	11	0

^a Documented pack = territorial groups of wolves usually consisting of an adult male and female and their offspring from one or more generations, and has the potential to reproduce (2 adults of opposite sex). Suspected pack = geographic areas where wolf pack presence was suspected but not verified, or where wolf presence was verified but did not meet documented pack status. Other documented group = verified groups not meeting either documented or suspected pack status (e.g., lone wolves, potential mated pairs, etc.). Unknown = geographic areas where wolf presence was previously unverified and/or no data on group status was known.

^b Summing this column does not equate to number of wolves estimated to be present in the population.

^c Number in parentheses indicates known pup mortality; pup mortalities tallied in the appropriate column in DOCUMENTED MORTALITIES.

^d Breeding pairs are the measure of Federal and State wolf recovery and management goals. A breeding pair is defined as “an adult male and a female wolf that have produced at least 2 pups that survive until December 31 of the year of their birth...”.

^e Includes agency lethal control and legal take.

^f Includes all other human-related deaths.

^g Does not include pups that disappeared before winter.

^h Includes wolves captured for monitoring purposes during 2007. Most, but not all, were radiocollared.

ⁱ Radiocollared wolves that became missing in 2007.

^j Border pack officially tallied to (STATE); territory known/likely shared with Idaho. Data on these packs can be found in Rocky Mountain Wolf Recovery 2007 Annual Report. Data for mortalities and/or depredations by non-Idaho border packs that occurred within Idaho are presented here.

^k Group no longer considered extant due to agency lethal removal, lack of verified evidence for the preceding 2 years, or other cause.

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APPENDIX A: POPULATION ESTIMATION TECHNIQUE USED TO DETERMINE WOLF POPULATION NUMBERS IN IDAHO

From 1996 until 2005, wolf populations were counted using a total count technique that was quite accurate when wolf numbers were low and most had radiocollars. We have, for the past two years, used an estimation technique that is more applicable to a fully recovered population and types of data we are able to collect. In 2006 we began using an estimation technique that had been peer reviewed by University and NRM wolf managers. This technique bypasses the need to count pups in every pack, and instead relies on our documented packs, estimated pack size, number of wolves documented in small groups not considered packs, and a percentage of the population believed to be lone wolves. Mathematically this technique is represented as:

$$\text{Minimum Wolf Population Estimate} = ((\text{Documented packs} * \text{mean pack size}) + (\text{Wolves in other documented wolf groups})) * (\text{lone wolf factor})$$

Using this technique, the 2007 wolf population estimate is 732 wolves and represents an increase of 9% over 2006's estimated wolf population:

$$\begin{aligned} & ((83 * 7.7) + (12)) * 1.125 \\ & (639 + 12) * 1.125 \\ & 651 * 1.125 = \\ & 732 \end{aligned}$$

The number of documented packs that were extant at the end of 2007 was 83.

Mean pack size (7.7) was calculated using only those packs ($n = 34$) for which biologists believed complete pack counts were obtained in 2007.

To account for wolves not classified as lone wolves and not associated with documented packs, we included a "total count" for those radiocollared wolves in groups of 2-3 wolves that were not considered packs under Idaho's definition. This resulted in the addition of 12 wolves from 8 groups.

A lone wolf factor (12.5%) was added to account for that component of the wolf population comprised of wolves not associated with packs or groups of 2-3 wolves. This was a mid value derived from 5 peer-reviewed, published studies and 4 non-reviewed papers from studies that occurred in North America and were summarized and reported in 2003 (Mech and Boitani 2003, page 170). For 2007, an estimated 81 lone wolves were in the Idaho population.

It is important to recognize this estimate is not corrected for survey effort and represents only the minimum number of wolves estimated to be present in Idaho. The actual number of wolves in Idaho is likely more than the 'estimated minimum number', as we did not include suspected packs (packs for which we did not have verified evidence) in the estimator. Also, changes in the estimate from year to year are not adjusted to differing amounts of effort put forth to document wolf activity. However, we are comfortable that this estimate is a good representation of packs that have been reported by the public and agency professionals and verified by wolf specialists, and thus a defensible estimate of the minimum population.

APPENDIX B. ESTIMATING BREEDING PAIRS BY USING PACK SIZE

The USFWS established a population recovery goal for wolves in the northern Rocky Mountains to maintain 30 “breeding pairs” of wolves for 3 consecutive years well distributed across the 3 states of Idaho, Wyoming, and Montana. A breeding pair is strictly defined by the USFWS as 2 adult wolves that have produced at least 2 pups that survived through December 31 of their birth year. Breeding pair status is determined at the end of each year and essentially represents a successful reproductive wolf pack. Not all wolf packs reproduce successfully each year or have pups that survive until the end of the year, so not all packs qualify as breeding pairs. Also, not all packs can be observed by project personnel to verify reproductive status. The reason for using this technique for the recovery goal is to provide a measure and estimator of the reproductive success and recruitment of wolves into the population the following year.

As part of the forthcoming Delisting Rule, the USFWS has established a post-delisting monitoring plan that is also based on monitoring breeding pairs. The post-delisting monitoring plan requires the 3 Northern Rocky Mountain (NRM) states to maintain a federally required minimum of ≥ 30 breeding pairs and ≥ 300 wolves well distributed among the 3 states, including ≥ 10 breeding pairs and ≥ 100 wolves within each state. During the first 5 years after delisting, federal law will require the 3 states to continue to monitor and report breeding pair status of wolves to insure wolf population levels do not fall below the federally required minimums.

The breeding pair definition places a significant burden on managers because it requires intensive monitoring and a high degree of certainty in assigning breeding pair status. For the past 10 years, during wolf recovery efforts within the NRM states, breeding pair status was determined using intensive and expensive monitoring methods relying on the use of radiotelemetry techniques. Wolves were captured, radiocollared, and tracked through the year from the air and ground. Intensive radiotracking efforts during spring and summer allowed field biologists to locate denning wolves, establish reproductive status of wolf packs, and determine litter sizes. Additional field efforts, including ground and aerial tracking and observations, were required through the fall and winter to determine pup and adult survival and breeding pair status by the end of the year.

This method of determining breeding pair status has become increasingly difficult through time as wolf populations grow and funding and personnel levels remain the same. Federal funding following delisting is in question, adding to this growing concern. In response to these concerns, NRM wolf managers, working through the University of Montana Cooperative Wildlife Research Unit, have developed a new and more efficient method for determining and monitoring breeding pair status of wolf populations. This new method will be used by all 3 NRM states and was evaluated, peer reviewed and approved by the USFWS to be used once wolves are delisted.

Recent development of a surrogate method for determining breeding pair status based on pack size may reduce the level of monitoring intensity required to verify minimum breeding pair status (M. S. Mitchell, U.S. Geological Survey, 2008). In essence, a historical record now exists that provides a correlation between pack size and the probability of that pack meeting the definition of a breeding pair. As pack size increases, the probability that the pack meets breeding pair status increases. For example, the probability that a pack consisting of 10 wolves constitutes a breeding pair is 0.95. Therefore, the model will allow managers to develop probabilistic estimates of breeding pairs on a statewide basis. Because pack size is more easily obtained than

actual pup survival data, monitoring levels needed to ensure minimum breeding pair goals may be reduced.

For Idaho wolves, the correlation between pack size and breeding pair status is presented in Table 1. By definition, there must be a minimum of 4 wolves within a pack to qualify as a breeding pair. In Idaho, even small pack sizes ≥ 4 have fairly high probabilities of meeting the breeding pair definition as most packs in Idaho reproduce and recruit offspring into the population successfully.

Table 1. Probability by pack size of a wolf pack containing a successful breeding pair (1 adult male, 1 adult female, and ≥ 2 pups), Idaho, 1996-2005 (adapted from Mitchell et al. 2008).

	Pack size										
	4	5	6	7	8	9	10	11	12	13	≥ 14
Breeding pair probability	0.65	0.73	0.79	0.85	0.89	0.92	0.95	0.96	0.97	0.98	0.99

Application of this method is simple and straight forward. Once the number of documented packs and their pack sizes are determined for the year, each pack is assigned the probability that it will meet the definition of a breeding pair based on its pack size. Then all probabilities are summed for all packs to produce an estimate of the number of breeding pairs represented by those documented packs. This technique can be applied without any prior knowledge of breeding pair status as illustrated in Table 2. Most often, however, through regular monitoring activities and field work by wolf managers, breeding pair status for some packs may be known, while those of others may not. In this more typical case, those packs that are known to be breeding pairs are assigned a probability of 1.00, or 100%; those packs known not to be breeding pairs are assigned a probability of 0.00, or 0%; and those packs of unknown status are assigned the logistic regression model probabilities based on pack size as listed in Table 1. The procedure is then the same; all probabilities are summed for all packs to obtain an estimate of the number of breeding pairs (Table 3). The IDFG, NPT, and other NRM managers intend to use this new logistic model method post-delisting. The USFWS authorities have approved the technique.

One other advantage of this new technique is that confidence intervals can be developed to provide a measure of precision for this estimate. The logistic regression model was developed during the recovery phase when wolves were protected under the ESA. The correlation between pack size and breeding pair status should be reexamined post-delisting, as this relationship will likely change once wolves are delisted and are subject to regulated harvest.

Table 2. A hypothetical illustration of the logistic regression model of Mitchell et al. 2008 for estimating the number of breeding pairs, given unknown status of breeding pairs, for wolves in Idaho.

Pack	Pack Size	Known BP ^a Status	BP Probability
A	4	Unknown	0.65
B	4	Unknown	0.65
C	4	Unknown	0.65
D	6	Unknown	0.79
E	6	Unknown	0.79
F	6	Unknown	0.79
G	8	Unknown	0.89
H	8	Unknown	0.89
I	8	Unknown	0.89
J	10	Unknown	0.95
K	11	Unknown	0.96
L	11	Unknown	0.96
M	12	Unknown	0.97
N	13	Unknown	0.98
O	15	Unknown	0.99
Estimated number of breeding pairs			13

^a BP = Breeding Pair(s)

Table 3. A hypothetical illustration of the logistic regression model of Mitchell et al. 2008 for estimating the number of breeding pairs, given both known and unknown status of breeding pairs, for wolves in Idaho.

Pack	Pack Size	Known BP ^a Status	BP Probability
A	4	Yes	1.00
B	4	No	0.00
C	4	Unknown	0.65
D	6	Yes	1.00
E	6	Yes	1.00
F	6	Unknown	0.79
G	8	Yes	1.00
H	8	Unknown	0.89
I	8	Unknown	0.89
J	10	Unknown	0.95
K	11	Yes	1.00
L	11	Yes	1.00
M	12	Unknown	0.97
N	13	Unknown	0.98
O	15	Yes	1.00
Estimated number of breeding pairs			13

^a BP = Breeding Pair(s)

Technique derived from and published in:

Mitchell, M. S., D. A. Ausband, C. A. Sime, E. E. Bangs, J. A. Gude, M. D. Jimenez, C. M. Mack, T. J. Meier, M. S. Nadeau, and D. W. Smith. 2008. In press. Estimation of self-sustaining packs for wolves in the Rocky Mountains. *Journal of Wildlife Management* (used with permission)

APPENDIX C: CONTACTS FOR IDAHO WOLF MANAGEMENT

Idaho Fish and Game Regional Offices at:

Headquarters Wildlife Bureau	(208) 334-2920
Panhandle Region	(208) 769-1414
Clearwater Region	(208) 799-5010
Southwest Region	(208) 465-8465
McCall Subregion	(208) 634-8137
Magic Valley Region	(208) 324-4350
Southeast Region	(208) 232-4703
Upper Snake Region	(208) 525-7290
Salmon Region	(208) 756-2271

For information about wolves in Idaho and IDFG management:

<http://fishandgame.idaho.gov/cms/wildlife/wolves/>

To contact IDFG via email:

<http://fishandgame.idaho.gov/inc/contact.cfm>

The Nez Perce Tribe's Idaho Wolf Recovery Program:

Telephone: (208) 634-1061
Fax: (208) 634-4097
Mail: P.O. Box 1922
McCall, ID 83638-1922
Email: cmack@nezperce.org
jholyan@nezperce.org

For information about the Nez Perce Tribe's Wildlife Program and to view Recovery Program Progress Reports, please visit the following website:

http://www.nezperce.org/programs/wildlife_program.htm

U.S. Fish and Wildlife Service Northern Rocky Mountain Wolf Recovery:

For information about wolf recovery in the Northern Rocky Mountains, please visit the USFWS website at the following:

<http://www.westerngraywolf.fws.gov/>

To report wolf sightings within Idaho:

Report online: <http://fishandgame.idaho.gov/wildlife/wolves/report.cfm>

To report livestock depredations within Idaho:

USDA/APHIS/Wildlife Services	
State Office, Boise, ID	(208) 378-5077
District Supervisor, Boise, ID	(208) 378-5077
District Supervisor, Gooding, ID	(208) 934-4554
District Supervisor, Pocatello, ID	(208) 236-6921
Wolf Specialist, Arco, ID	(208) 681-3127

To report information regarding the illegal killing of a wolf or a dead wolf within Idaho:

U.S. Fish and Wildlife Service Senior Agent, Boise, ID	(208) 378-5333
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Citizens Against Poaching (24hr) or any IDFG Office	1-800-632-5999
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