

**WOLF CONSERVATION AND MANAGEMENT  
IN IDAHO  
PROGRESS REPORT 2005**



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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 a MOA that outlined responsibilities between the State of Idaho and the NPT in regards to wolf conservation and management. This annual progress report is a cooperative effort between the IDFG and the NPT with contributions from USDA Wildlife Services (WS) summarizing wolf activity and related management in Idaho during 2005.

By the end of 2005, biologists documented 59 resident wolf packs in Idaho, observed a minimum of 370 wolves, and estimated the population at 512 wolves (Appendix A). In addition, 11 documented border packs have established territories that straddle state boundaries between Idaho, Montana, and Wyoming and likely spend some time in Idaho. Of the 40 packs known to have reproduced, 36 qualified as breeding pairs by the end of the year. These 40 reproductive packs produced an estimated minimum 123 pups, two of which were known to have subsequently died.

In Idaho, wolf packs ranged from near 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. Eleven new packs were documented during 2005. More than 500 wolf observations were reported on IDFG's online website report form during 2005.

Forty-three wolves were confirmed to have died in Idaho in 2005. Of known mortalities, agency control and legal landowner take in response to wolf-livestock depredation accounted for 26 deaths, illegal take 10 deaths, other human causes 6 deaths, and natural causes 1 death.

During the 2005 calendar year, 26 cattle, 218 sheep, and 9 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, Nez Perce Tribe, WS, and the USFWS. The Governor's Office of Species Conservation director Jim Caswell and program advisor Jeff Allen provided insight, assistance, and oversight. The Nez Perce Tribe's Executive Committee and Wildlife Program Director Keith Lawrence provided support and input. Mark Collinge, George Graves, Todd Grimm, Rick Williamson, and other Wildlife Services field personnel expertly investigated and helped resolve wolf depredations on livestock. Ed Bangs, Joe Fontaine, Jeff Foss, Steve Duke, Craig Tabor, Scott Bragonier, Scott Kabasa, and Carter Niemeyer with the U.S. Fish & Wildlife Service provided support and assistance during transition of wolf management authorities. We would also like to thank all the Outfitters and Guides for their information and assistance in the backcountry.

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Dr. 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 the following volunteers; Sean Babcock, Barry Braden, Kelsey Dalton, Janeen Hetzler, Cason Johnson, Stuart Phelps, and Erin Simmons. Thanks are also extended to Jim and Holly Akenson, University of Idaho Taylor Ranch; Kyran Kunkel and Wayne Melquist. We especially recognize Mike Dorris and Rod Nielson, McCall Aviation; Steve and Michele Wolters, Northstar Aviation; Gene Mussler, Sawtooth Aviation; Sam Kocherhans, and Joe Dory WS; and Pete Nelson, Middle Fork Aviation for their expertise and flying safety.

Cover photo by Magnus Elander.

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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 United States. 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 (Figure 1). 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, thirty-one of which were reintroduced into Yellowstone National Park and thirty-five 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 forbade the IDFG to engage 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 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](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, the 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.

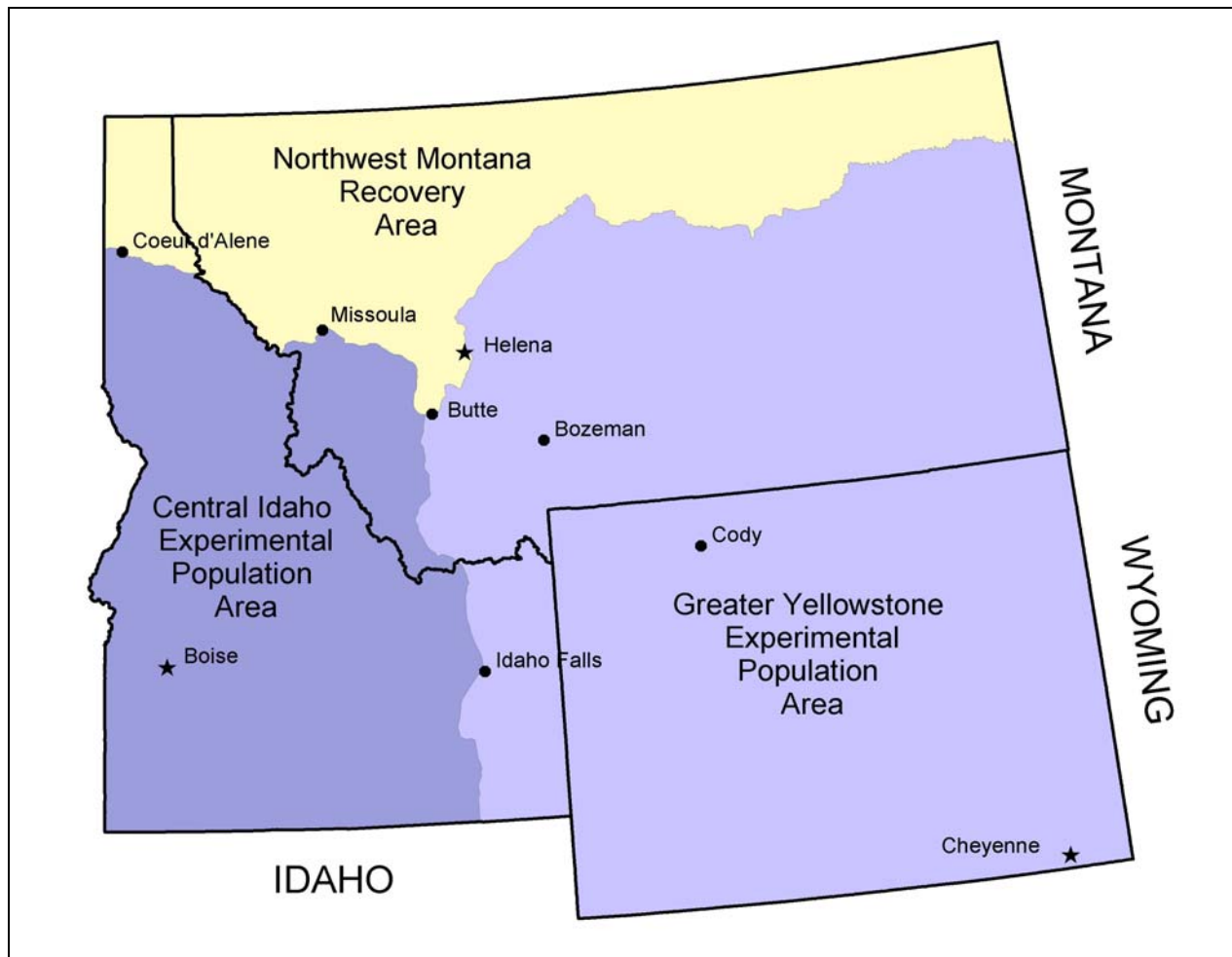


Figure 1. Recovery areas established by the U.S. Fish and Wildlife Service to restore gray wolf populations in the northern Rocky Mountains of Idaho, Montana, and Wyoming. Wolves are naturally recovering in the Northwest Montana Recovery Area, while wolves were reintroduced into the Central Idaho and Greater Yellowstone Experimental Population Areas.

In December 2002, the northern Rocky Mountain wolf population attained the established 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 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 will initiate the delisting process when the northern Rocky Mountain wolf population meets or exceeds established population goals, and the 3 states of Idaho, Montana, and Wyoming each have 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 adopted 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 makes USFWS requested adjustments to its plan or federal courts rule that the USFWS accept Wyoming's plan.

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 Wyoming's situation is resolved and 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 Memorandum of Agreement (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.

In May 2005, a 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.

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.

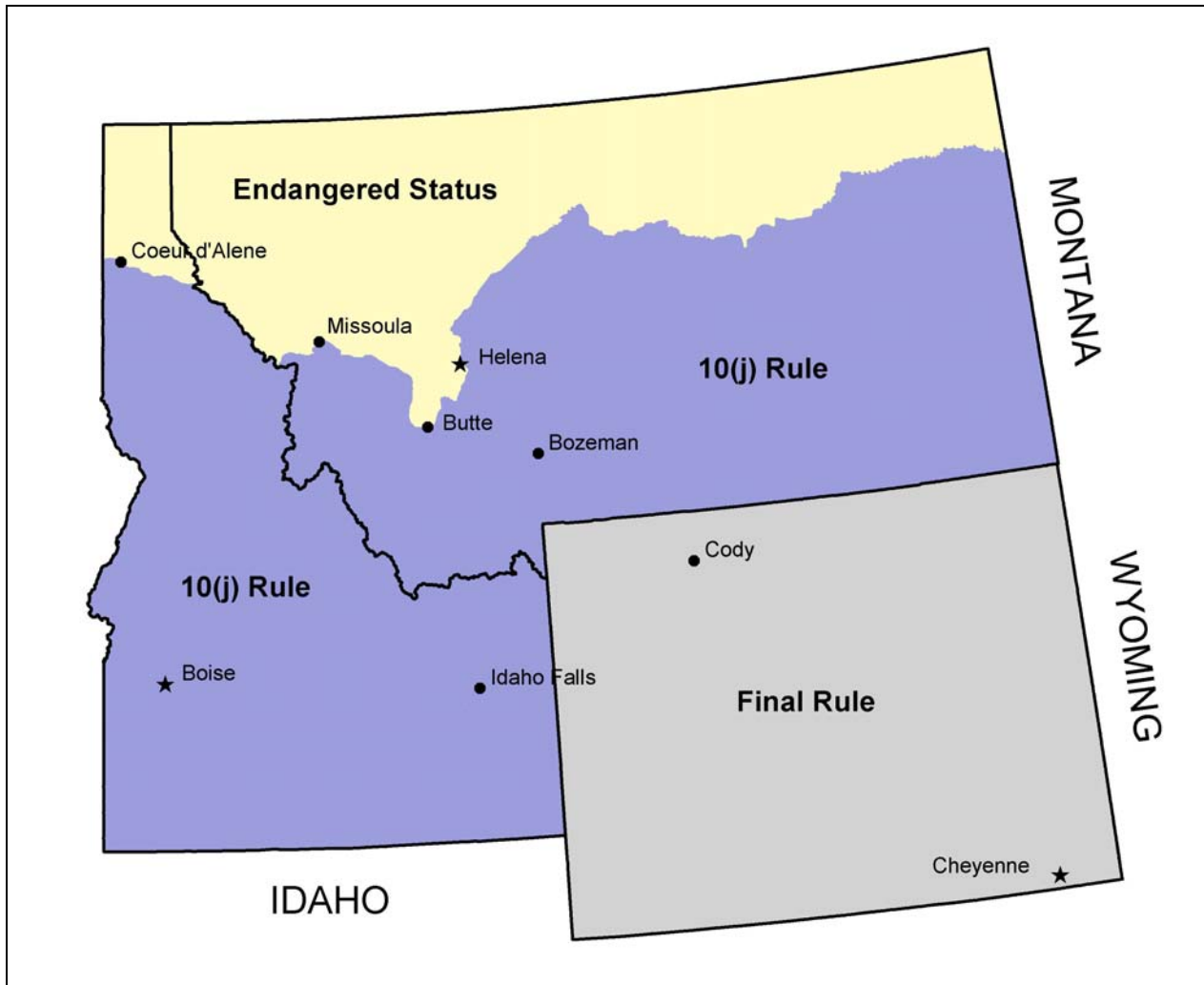


Figure 2. Management areas established by the U.S. Fish and Wildlife Service to restore gray wolf populations in the northern Rocky Mountains of Idaho, Montana, and Wyoming.

## STATEWIDE SUMMARY

Previous progress reports by the NPT and the USFWS summarized wolf status within the Central Idaho Experimental Population 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 United States. 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-western hemlock vegetation types, grading into continental climates of Douglas-fir and Ponderosa pine 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). The status of 67 documented and suspected wolf packs and potential mated pairs, and areas of suspected wolf activity was investigated during 2005. By the end of 2005, 59 wolf packs were documented in Idaho, including 11 new packs, and a minimum of 370 wolves was observed or monitored with radiotelemetry by wolf program personnel. Using techniques established in previous years, the Idaho population was estimated at 512 wolves (Appendix A). In addition, the wolf program identified 6 areas occupied by suspected packs where wolf presence was verified although numbers and status of wolves remained unknown, and 11 areas of suspected wolf activity where presence of wolves was suspected but could not be verified. Finally, 3 packs were retroactively added as documented packs for 2004 based on information obtained in 2005.

### Distribution, Reproduction, and Population Growth

Wolves were well distributed in the state from near the Canadian border, south to the Snake River plain, and east to the Montana and Wyoming borders (Figure 5). Of the 59 documented packs monitored during 2005, territories of all were wholly or predominantly on USFS public lands; 24 included at least a portion of their territory within federally-designated Wilderness.

Of 59 documented packs, a minimum of 40 produced litters and 36 qualified as breeding pairs (Table 1). A minimum of 123 wolf pups was documented in 2005, two of which were known to have died. Wolf pup counts were conservative estimates because not all pups were observed at packs that were monitored and some documented packs were not visited. Minimum documented litter size ranged from 1-6 pups. Average minimum litter size for those packs where counts were believed complete ( $n = 30$ ) was 3.5 pups per litter. Nine new breeding pairs were documented and the reproductive status of 17 extant packs was not verified during 2005.

Between 2004 and 2005, the Idaho wolf population increased by an estimated 21%. This rate of growth is expected to decrease in the future as the wolf population reaches social and biological carrying capacity. 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.

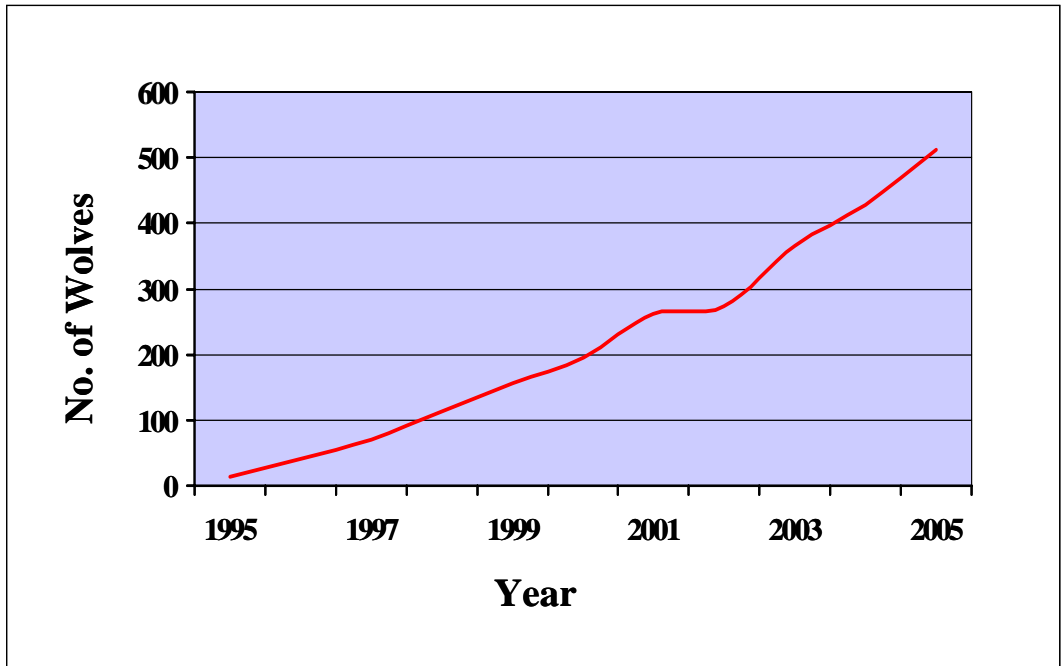


Figure 3. Estimated number of wolves in Idaho, 1995-2005. Annual numbers were based on best information available and were retroactively updated as new information became available.

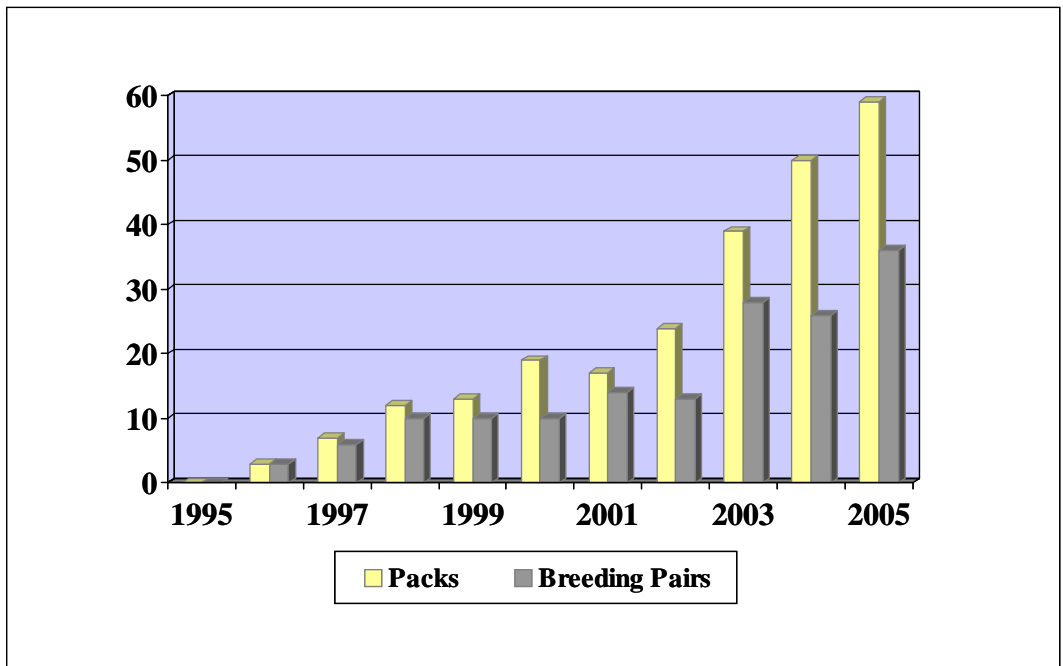


Figure 4. Number of documented wolf packs and breeding pairs in Idaho, 1995-2005. Annual numbers were based on best information available and were retroactively updated as new information became available.

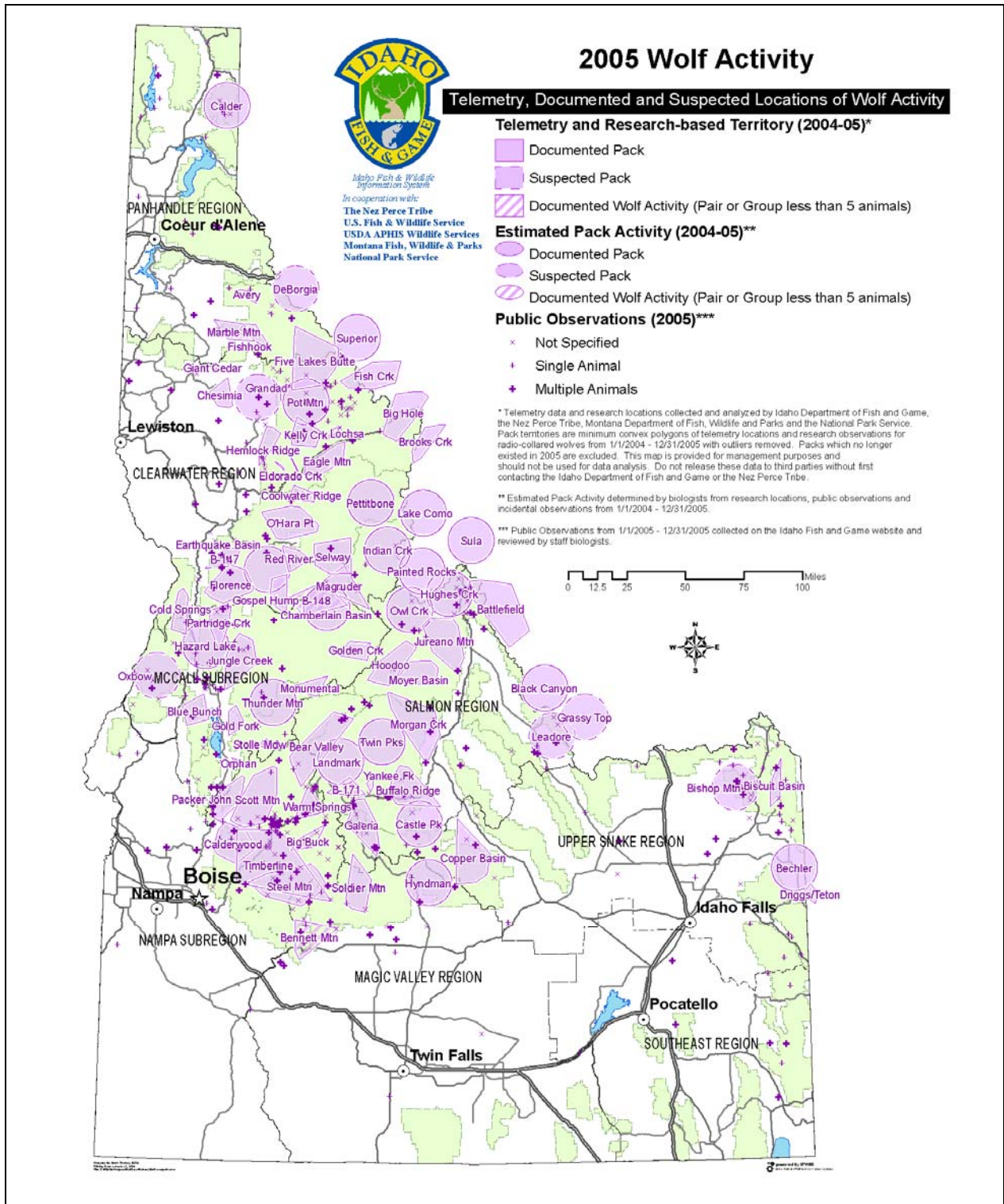


Figure 5. Distribution of documented and suspected wolf packs, other documented non-pack wolf groups, and public wolf reports in Idaho, 2005.

Table 1. Number of wolves observed, documented packs, and other documented wolf groups; dispersal; reproductive status; mortality; monitoring status; and wolf-caused livestock deprecations within Idaho Department of Fish and Game management regions, 2005.

	Management Region								Total
	Panhandle	Clearwater	McCall	Nampa	Magic Valley	Southeast	Upper Snake	Salmon	
Minimum number wolves observed <sup>a</sup>	18	110	66	49	16	0	15	96	370
Number documented packs	5	19	12	6	2	0	2	13	59
Number other documented groups <sup>b</sup>	0	4	1	1	1	0	1	2	10
Known dispersal	1	1	2	0	0	0	0	5	9
Reproductive status									
Minimum number pups produced	8	42	17	12	6	0	4	34	123
Number reproductive packs	4	12	7	4	2	0	2	9	40
Number breeding pairs <sup>c</sup>	4	11	6	4	1	0	1	9	36
Documented & suspected mortalities									
Natural	0	0	0	0	0	0	1	0	1
Control <sup>d</sup>	0	4	9	0	1	0	11	2	27
Other human-caused <sup>e</sup>	0	2	3	2	0	0	1	4	12
Unknown	0	0	0	2	0	0	1	1	4
Monitoring status									
Active radio collars	5	16	11	11	5	0	4	18	70
Number wolves captured <sup>f</sup>	3	12	15	5	0	0	1	7	43
Number wolves missing <sup>g</sup>	0	3	0	4	1	0	0	1	9
Confirmed & probable wolf-caused livestock losses									
Cattle	0	8	4	0	0	0	9	5	26
Sheep	0	0	76	59	51	0	0	32	218
Dogs	0	6	1	1	0	0	0	1	9

<sup>a</sup> Number of wolves observed by wolf program personnel in 2005. Sum of this row does not equate to number of wolves estimated to be present in the population.

<sup>b</sup> 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.

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

<sup>d</sup> Includes agency lethal control and legal take by landowners.

<sup>e</sup> Includes all other human-related deaths.

<sup>f</sup> Includes all wolves captured during 2005. Most, but not all, were radio-collared.

<sup>g</sup> Radio-collared wolves that became missing in 2005.

## Mortality

Forty-three documented, and 1 suspected, wolf mortalities were recorded in 2005 (Table 1). All but 1 confirmed mortality (97%) of known cause ( $n = 39$ ) were human-related (control [ $n = 23$ ], illegal take [ $n = 10$ ], legal take [ $n = 3$ ], other human cause [ $n = 2$ ]); and natural ( $n = 1$ ). 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 lethally controlled is difficult. Only 1 wolf death due to natural causes was 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 ( $n = 23$ ) were lethally controlled in Idaho in 2005 than in any previous year. This mortality stemmed from removals in 6 packs: the Buffalo Ridge pack (1 individual) near Clayton, Idaho; the Chesimia pack (4 individuals, including the suspected alpha female) southeast of Elk River, Idaho; the Copper Basin pack (9 individuals) between Ketchum and Mackay, Idaho; the Hyndman pack (the suspected alpha female) east of Hailey, Idaho; the Moyer Basin pack (the suspected alpha male) southwest of Salmon, Idaho; the Partridge Creek pack (4 individuals, including the alpha female) north of McCall, Idaho; a dispersing wolf from the Buffalo Ridge pack taken near Mackay, Idaho; and 2 wolves removed north of McCall whose pack affiliations were uncertain. Three wolves from the Orphan pack were legally shot by landowners that were issued shoot-on-sight permits. Two of these were recovered and verified to have died, the third was not recovered and was suspected to have died. Finally, 1 wolf was taken in the act of attacking livestock on private property by a landowner near Mackay, Idaho, under the revised 10(j) Rule.

Since 1995, human factors were the greatest source of documented mortality for wolves. Wolves lethally controlled and legally taken, both radio-collared and uncollared, were well documented. Illegal take, especially of uncollared animals, was difficult to document. The number of radio-collared wolves documented or suspected to have been illegally killed, in proportion to the total number of radio-collared wolves monitored during 2005, was used to generate an estimate of illegal take statewide. This was a minimum estimate in that some radio collars are likely destroyed when wolves are illegally killed, precluding documentation. This computation, based on 96 radio-collared wolves during 2005, suggested that 41-47 wolves were illegally killed in 2005. This represented 7-8% of the pre-mortality population estimate and would be additive to other sources of mortality. Other sources of mortality (other/unknown [6%], other human causes [4%], and lethal control [4%]) represented 14% of the pre-mortality population estimate. Total mortality for Idaho was estimated at 21-22% of the pre-mortality population estimate.

## **Livestock and Dog Mortalities**

During 2005, WS conducted 85 depredation investigations involving reported wolf-killed livestock. Of those, 47 (55%) involved confirmed wolf depredations, 8 (9%) involved probable wolf depredations, 17 (20%) were possible/unknown wolf depredations, and 13 (15%) were due to causes other than wolves. During the calendar year, WS reported 26 cattle, 218 sheep, and 9 dogs that were classified as confirmed or probable wolf kills (Table 1). Non-lethal techniques were used to reduce wolf-livestock conflicts when appropriate.

## **Law Enforcement**

During 2005, USFWS Special Agents and IDFG Conservation Officers cooperatively investigated and reported 18 known and suspected cases of unlawful take of wolves. Of the 18 wolves killed, eleven were shot, one was poisoned, and the cause of death for six was unknown. Two investigations have resulted in guilty pleas and were adjudicated through the federal court system. Other investigations were ongoing.

## **Research and Management**

Agencies continue to coordinate and support scientific research assisting in long-term wolf conservation and management.

### Statewide Elk and Mule Deer Ecology Study

During 2005, the IDFG began an intensive, multi-year effort to scientifically measure the effects of wolf predation, habitat condition, and forage nutrition on elk and mule deer populations across representative landscapes in Idaho. Elk and deer were radio collared in 12 project areas encompassing 20 big game management units across the state. Long-term goals include radio collaring 300 adult female elk, 300 adult female deer, 100 6-month-old elk calves, 100 6-month-old deer fawns, 100 newborn elk calves, and 100 newborn deer fawns. Research objectives include 1) determine survival, cause-specific mortality, pregnancy rates, and body condition for radio-collared 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 will help identify and evaluate specific predator and habitat management actions necessary to achieve ungulate population objectives. Secondly, this research will provide contemporary estimates of non-hunting mortality, survival, and productivity of elk and deer populations for determining appropriate hunting seasons.

### Effects of Wolf Predation on North Central Idaho Elk Populations

The IDFG developed a proposal to evaluate effects of wolf predation on elk populations in the Lolo and Selway elk management zones. Elk populations in these 2 zones are below established state management objectives. The proposal included a review of elk population data, cause-specific mortality research being conducted on elk, wolf population data, and modeling conducted to simulate impacts of wolf predation on elk using estimated population parameters. Additionally, this proposal identified conservation measures already implemented, and future management actions and objectives proposed, in an attempt to improve and monitor elk populations in these areas. The proposal calls for removal of 75%, up to 43 wolves, within the Lolo elk management zone to enhance female elk survival.

### 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 viable recovered 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 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, the USFWS, and the IDFG 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. We are proposing a 3.5-year research effort to 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.

Multiple study areas will be identified throughout the state representative of landscape constraints including snow and timber cover, access, and terrain to assess logistical application of methods. Intensive wolf trapping and radio collaring efforts will be conducted in each study area to evaluate the ability of protocols to index known population levels. Cost, effort, logistical considerations, accuracy, and precision for each protocol will be evaluated to determine its ability to address management goals.

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. Results of this effort will also be useful to other states, particularly Montana and Wyoming, developing monitoring protocols for wolves across the northern Rocky Mountains.

## **Outreach**

Program personnel presented informational talks and status reports throughout the year to various federal and state agencies, public and private institutions, special interest groups, and rural communities. Additionally, scores of informal presentations to small groups or individuals were conducted during this time.

The IDFG online wolf reporting system provided an opportunity for the general public and professionals to record wolf observations in Idaho. During 2005, the IDFG received over 500 wolf observations online that assisted biologists in identifying new packs; recording the movements, size, and distribution of known packs; providing information on wolf behavior; and other important information.

## **REGIONAL SUMMARIES**

Determining numbers, distribution, and population trends of wolves in Idaho is important for many reasons including effective species management, addressing social concerns of Idahoans, and meeting federal minimum wolf population requirements. A wolf pack is a group of wolves usually consisting of an adult male and female (alpha pair) and their offspring from one or more generations. A pack is first formed when a mated pair produces its first litter of pups. Because a wolf pack is the basic reproductive unit for this species, enumerating the number of packs within the population is important in determining the reproductive status and long-term viability of the population. As such, the wolf pack has become the unit of measure for federal wolf recovery

goals and relisting thresholds, and state wolf management objectives. Unfortunately, because wolf packs are dynamic, varying in size and age and sex composition, do not always travel together in one discrete group, and travel across large territories, they are difficult to detect and differentiate from one another in the field. In addition, not all groups of wolves are associated with reproductive packs.

The status of the wolf population was tracked by documenting and counting different wolf groups. Wolf groups reported here are classified as documented packs, suspected packs, potential mated pairs, and lone wolves. In Idaho, a documented pack was defined as 5 or more wolves verified (by program personnel or other reliable sources with evidence such as photos) traveling together, or 2 or more wolves that have had verified reproduction. Documented packs are considered fully reproductively functioning wolf packs containing an alpha pair and offspring. The estimate of the number of wolf packs in the state, for any given year, is based on counts of documented packs. Usually, some information about a documented pack's composition and social structure was known, as program personnel study these multi-generational packs from year to year. Although most wolf packs produce a litter every year, some packs do not. The reproductive history of documented packs is monitored annually. Documented packs that produced litters for a given year were considered reproductive packs for that year, and documented packs that did not produce litters, or for which reproduction was not verified, were considered non-reproductive packs for the year.

In addition, the USFWS has established a stricter definition for a wolf pack called a breeding pair. The USFWS defines a breeding pair as "An adult male and an adult female wolf that have produced at least 2 pups that survived until December 31 of the year of their birth..." (USFWS 1994). Breeding pairs are the USFWS' unit of measure for wolf recovery goals and relisting thresholds in the northern Rocky Mountains. Until wolves are delisted, and for a 5-year period following delisting, the USFWS will require the State of Idaho to monitor the numbers of breeding pairs. For any given year, all documented reproductive packs that survive intact, the alpha pair plus a minimum of 2 pups, until December 31 are counted as breeding pairs for that year.

Suspected packs are known or suspected groups of wolves with unknown pack composition (numbers, sex and age structure, social structure) and reproductive history. A suspected pack is defined as multiple wolves or wolf activity repeatedly reported or documented that has not been verified as a pack. Suspected packs are assigned to geographic areas where, based on available evidence, wolf pack presence is suspected but not verified. Evidence can include multiple unverified reports suggesting pack presence, or verified presence of wolves of unknown status or composition.

Most documented packs were resident packs with year-round territories contained wholly within Idaho. However, some documented and suspected packs, called border packs, were only part year residents of Idaho. Border packs had known or suspected territories that overlapped state boundaries between Idaho and neighboring states of Montana and Wyoming. The states of Idaho, Montana, and Wyoming have agreed, for federal recovery purposes, that border packs would be assigned to that state in which border packs den, or spend the majority of their time. For purposes of this report, we listed documented and suspected border packs for each IDFG region and indicated the state to which the pack had been assigned for 2005. Specific information for border packs assigned to Montana and Wyoming were not provided in this

report. For more information on Montana and Wyoming border packs, please see the Rocky Mountain Wolf Recovery 2005 Interagency Annual Report (USFWS et al. 2006).

Potential mated pairs are known small groups of wolves traveling together that have not yet formed a pack, but are anticipated to produce their first litter of pups the following year. Lone wolves are wolves not associated with a territory or other wolves. Usually, identified potential mated pairs and lone wolves are actively monitored through radiotelemetry and some information is known about their numbers, age and sex composition, and home range. For purposes of this report, potential mated pairs and lone wolves have been grouped into a single category called "Other Wolf Groups."

Lastly, many areas of potential wolf activity are monitored based on sporadic reports to determine if packs are present; however, these are not reported herein. Also, any verifications of new wolf pack activity that occurred after December 31, 2005, are not included in the information presented below.

Monitoring the status of these different wolf groups from year to year assists the Recovery Program in verifying as many documented wolf packs as possible annually, and provides more accurate information for estimating and tracking wolf population numbers and trends.

## 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 4 documented resident, 1 documented border, and 2 suspected border packs in the Panhandle Region in 2005 (Figure 6; Table 2). Four of the 5 documented packs (Avery, Calder Mountain, Fishhook, and Five Lakes Butte) produced litters and qualified as breeding pairs. Calder Mountain, the single documented border pack for this region shared time between Idaho and Montana, and was counted as an Idaho pack. The 2 suspected border packs for this region, Superior and De Borgia, counted as Montana packs for federal recovery purposes.

No wolf-livestock conflicts were reported in this region and no livestock or dogs (herding/guarding or hunting) were reported killed by wolves in 2005.

### Documented Resident Packs

#### *Avery*

Two wolves were radio collared in this newly documented pack in mid-June 2005; subadult female B233 and suspected alpha male B234. Wolf sign was observed in this general area in 2004 but biologists were unable to verify pack status or whether reproduction had occurred. Two pups were seen in the vicinity of the den/rendezvous site in 2005. Though few aerial locations were gathered, this pack appeared to range from the St. Joe River north almost to I-90. The Avery pack was a first-year pack with an estimated pack size of 4 wolves. The Avery pack was counted as a breeding pair for 2005.



*Photo Carter Niemeyer*

IDFG Officer Mark Bowen, Biologist Dave Spicer, and Officer Josh Stanley handling wolf B234 of the Avery pack.

the Marble Mountain pack who then established a new territory. This newly documented pack was counted as a breeding pair for 2005.

#### *Fishhook*

This first-year pack was documented by monitoring the movements of female wolf B217 from the Marble Mountain pack. Many of B217's aerial locations were in the area south of Roundtop Mountain, the eastern portion of the Marble Mountain pack's usual home range. A field investigation in late July 2005 verified at least 2 pups and 3 adults based on howling, while B217 was present. It was suspected that the Fishhook pack may have formed through the splitting of some members of

### *Five Lakes Butte*

Two gray pups were observed, and possibly a third heard howling, in the Vanderbilt Gulch drainage in mid-July. Adult females B212 and B213 remained with the pack after their captures in 2004, though B213 was not located after September 2005. B213's last location was just on the Idaho side of the border with Montana. Field observations indicated a minimum of 5-6 wolves in this pack. The Five Lakes Butte pack was counted as a breeding pair for 2005.

### *Marble Mountain*

Presence of pups was suspected, but was not verified, with the Marble Mountain pack in 2005. Adult male B216 was not aerially located from April through August, while female B217 (see Fishhook) was consistently located near Roundtop Mountain. A field investigation of a previously known Marble Mountain pack rendezvous site provided evidence that pups may have been in the area. At this time, B216's radio signal was detected near where this possible pup sign was found. The distance between where pups were documented for the Fishhook pack (B217) and where potential pup sign was found in the Marble Mountain pack home range (B216) was suspected too great to be from the same animals. However, because pup activity with adults was not verified but only suspected, the Marble Mountain pack was not considered a breeding pair for 2005.

### Documented Border Packs

#### *Calder Mountain (ID)*

Based on reports from the public indicating wolf activity, biologists from Idaho and Montana investigated this area in July 2005. By conducting howling surveys in the area, biologists were able to locate a rendezvous site where a minimum of 2 adults and 2 pups was verified. A wolf pup was captured, but was too small to radio collar, so this pack remained without radio collars. Based on field investigations and public reports, this newly documented pack was considered a border pack between Idaho and Montana, and was counted as an Idaho breeding pair for 2005.

### Suspected Border Packs

#### *De Borgia (MT)*

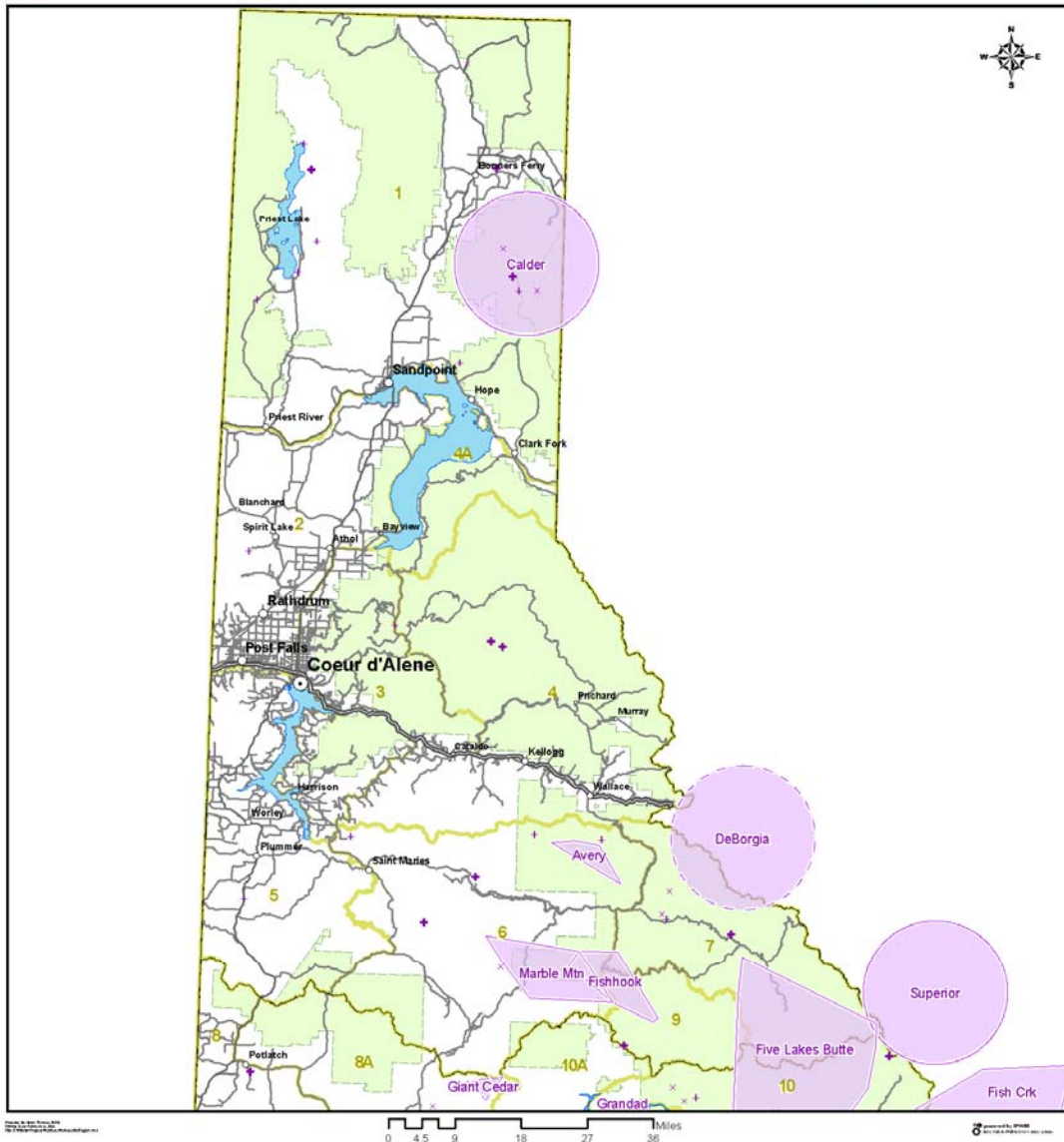
De Borgia was a suspected group consisting of as many as 6 wolves. Initial reports of wolf activity in this area were first received by Montana Department of Fish, Wildlife and Parks (MTFWP) during the 2005 big game hunting season in drainages south of De Borgia, Montana. No field investigations were made. This suspected pack is considered a border pack between Idaho and Montana.

#### *Superior (MT)*

Superior was a suspected pack that was documented by MTFWP and WS. A colt was confirmed injured in this area in June 2005. There was consistent sign of at least 2 wolves holding a territory south of Superior, Montana, although there could be more wolves present.

# 2005 Panhandle Region Wolf Activity Telemetry, Documented and Suspected Locations

- |  |  |                                      |
|--|--|--------------------------------------|
| <b>Telemetry and Research-based Territory (2004-05)*</b>     | <b>Estimated Pack Activity (2004-05)**</b>                   | <b>Public Observations (2005)***</b> |
| Documented Pack  | Documented Pack  | × Not Specified                      |
| Suspected Pack   | Suspected Pack   | + Single Animal                      |
| Documented Wolf Activity (Pair or Group less than 5 animals) | Documented Wolf Activity (Pair or Group less than 5 animals) | + Multiple Animals                   |



\* 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 and the National Park Service. Pack territories are minimum convex polygons of telemetry locations and research observations for radio-collared wolves from 1/1/2004 - 12/31/2005 with outliers removed. Packs which no longer existed in 2005 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 1/1/2004 - 12/31/2005.  
 \*\*\* Public Observations from 1/1/2005 - 12/31/2005 collected on the Idaho Fish and Game website and reviewed by staff biologists.

Map Produced by Idaho Fish and Wildlife Information System, Idaho Fish and Game in cooperation with: The Nez Perce Tribe, U.S. Fish & Wildlife Service, USDA/APHIS Wildlife Services, Montana Fish, Wildlife & Parks, and the National Park Service

Figure 6. Wolf pack activity and observations in the Panhandle Region, 2005.

Table 2. Estimated pack size, reproductive status, mortality, dispersal, monitoring status, and livestock depredation for documented and suspected wolf packs within Idaho Department of Fish and Game Panhandle Region, 2005.

Wolf pack or group	Min. no. wolves observed <sup>a</sup>	Reproductive status			Documented & suspected mortalities				Known dispersal	Monitoring status			Confirmed & probable wolf-caused livestock losses		
		Min. no. pups prod.	Reprod. packs	Breeding pairs <sup>b</sup>	Natural	Control <sup>c</sup>	Other human <sup>d</sup>	Unknown <sup>e</sup>		Active radio collars	Number wolves captured <sup>f</sup>	Number wolves missing <sup>g</sup>	Cattle	Sheep	Dogs
Documented															
Avery	4	2	yes	yes	0	0	0	0	0	2	2	0	0	0	0
Calder Mountain (ID) <sup>h</sup>	4	2	yes	yes	0	0	0	0	0	0	1	0	0	0	0
Fishhook	5	2	yes	yes	0	0	0	0	0	1	0	0	0	0	0
Five Lakes Butte	5	2	yes	yes	0	0	0	0	1	1	0	0	0	0	0
Marble Mountain	?	?	?	no	0	0	0	0	0	1	0	0	0	0	0
Suspected															
De Borgia (MT) <sup>h</sup>															
Superior (MT) <sup>h</sup>															
Regional total	18	8			0	0	0	0	1	5	3	0	0	0	0

<sup>a</sup> Number of wolves observed by wolf program personnel in 2005. Sum of this column does not equate to number of wolves estimated to be present in the population.

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

<sup>c</sup> Includes agency lethal control and legal take.

<sup>d</sup> Includes all other human-related deaths.

<sup>e</sup> Does not include pups that disappeared before winter.

<sup>f</sup> Includes all wolves captured during 2005. Most, but not all, were radio-collared.

<sup>g</sup> Radio-collared wolves that became missing in 2005.

<sup>h</sup> Border pack officially tallied to (state); territory known or likely shared with Idaho. Data on these packs can be found in Rocky Mountain Wolf Recovery 2005 Interagency Annual Report.

## Clearwater Region

This large region was home to more wolf groups than any other in 2005 including 19 documented resident, 4 documented border, 3 suspected resident, and 1 suspected border wolf packs (Figure 7; Table 3). Eleven of the 12 documented packs that reproduced qualified as breeding pairs; the Chesimia pack was excluded as a breeding pair based on lethal control of the alpha female, which left only 1 breeding age wolf in the pack by the end of 2005. All 4 border packs between Idaho and Montana within the Clearwater Region were counted as Montana packs for recovery purposes, but probably spent time in Idaho, as well.

Of the 4 documented wolf mortalities of known cause, all were related to human causes; 4 members of the Chesimia pack were lethally controlled. The death of the alpha female of the Cold Springs pack is under investigation. Confirmed and probable wolf-caused cattle losses were attributed to the Chesimia (6 cattle) and Florence (2 cattle) packs. The Chesimia pack also was responsible for the loss of 6 hunting hounds in 2005. Twelve wolves were captured in this region, which resulted in the placement of 6 radio collars; 6 other wolves were either euthanized or too small to radio collar at the times of their captures. In addition, biologists captured and radio collared 2 wolves from Montana's Fish Creek pack.

### Documented Resident Packs

#### *Bimerick Meadow*

Information from USFS personnel led to confirmation of this newly documented pack. Reports of wolf activity in this area resulted in a capture operation where an adult male, B247 (possibly the alpha), was radio collared. Subsequent investigations indicated that at least 2 pups were present based on howling. Estimated pack size at the end of 2005 was 4 wolves based on field observations. Limited telemetry locations indicated this pack used the Fish Creek drainage and surrounding area. The Bimerick Meadow pack was counted as a breeding pair for 2005.

#### *Chesimia*

At the beginning of 2005, 2 radio-collared wolves were being monitored. A minimum of 3 pups was documented in June; 1 gray pup was observed and 2 others were heard howling. As in 2004, these wolves were implicated in depredations on domestic livestock leading to wolf control actions conducted by WS. Yearling male B221 was captured and euthanized in late August and a female pup-of-the-year was removed in September. In mid-October, further control actions removed the suspected alpha female and a subadult male. This pack used a relatively small home range between Elk Creek and Dworshak Reservoir south of Elk River, Idaho, though locations in February and December 2005 were north of Aldermand Ridge. Pack size at the end of 2005 was estimated at 5 wolves, following the lethal removal of 4 individuals. Because of the lethal removal of the supposed alpha female, the Chesimia pack was not counted as a breeding pair for 2005.

#### *Cold Springs*

This pack was estimated to include 6 wolves at the end of 2004, although an aerial observation during winter 2004/2005 accounted for only 3 wolves. Suspected alpha female, the sole radio-collared wolf, B206 did not localize during the spring denning period. Repeated investigations of known rendezvous sites failed to provide evidence of reproduction. Biologists had a difficult time monitoring B206 from the ground, partially due to a large wildfire near the edge of the Seven Devil's Wilderness, which restricted access to B206's home range. B206's radio signal



was detected on mortality during a monitoring flight in October; her remains were located the following day and USFWS Law Enforcement is investigating her death. Estimated pack size at the end of 2005 was 3 wolves based on reports obtained during the hunting season. This pack was not counted as a breeding pair for 2005.

#### *Coolwater Ridge*

Female B163 founded this pack in 2004. She and her unknown mate produced their second litter in 2005, a minimum of 4 black pups, on their namesake ridge between the Selway and Lochsa Rivers. An observation during the hunting season indicated that this pack contained 11 wolves, 10 black and 1 gray. The Coolwater Ridge pack was counted as a breeding pair for 2005.

#### *Eagle Mountain*

Alpha male B136 and his uncollared mate produced their third litter of pups in 2005. A minimum of 4 pups was observed in mid-September in the Boulder Creek drainage, tributary to the Lochsa River. Pack size for 2005 was estimated at a minimum of 6 individuals. This pack was a 2005 breeding pair.

#### *Earthquake Basin*

Biologists were able to document this new pack following field investigations based on a report of wolf activity received from USFS personnel. At least 1 adult wolf was heard howling and 6 pups, 3 blacks and 3 grays, were observed. A capture attempt was conducted within days of initial detection of this pack, but importation of domestic livestock into the immediate area of the rendezvous site may have led to abandonment by the wolves. Further efforts to locate and capture this newly documented pack were unsuccessful. Based on field observations, this pack was estimated to contain a minimum of 8 wolves. The Earthquake Basin pack remained uncollared and was counted as a breeding pair for 2005.

#### *Eldorado*

Biologists captured and radio collared their first wolf, female B258, from this pack in 2005. Limited telemetry data indicated that this pack used the upper Eldorado Creek drainage east to the Mex Mountain area. A minimum of 2 pups was detected based on howling. Field observations indicated a minimum of 5 wolves in this pack. The Eldorado pack was counted as a breeding pair for 2005.

#### *Florence*

Two of the 3 male wolves captured in 2004 remained with the pack. B202 apparently dispersed, or his radio collar failed, as he was not located after March 2005. An aerial observation of this pack during winter 2004/2005 included 15 individuals. The den site area was investigated in early June, at which time 6-9 pups were documented. This pack was implicated in a depredation in September triggering a control action, but no wolves were captured or removed. The Florence pack counted as a breeding pair for 2005.

#### *Gospel Hump*

Contact with both radio-collared wolves, 2-year-old females B138 and B139, was lost during 2004, making monitoring of this pack difficult. Although biologists investigated previously used rendezvous sites, no evidence of reproduction or wolf presence was detected. The status of this pack was unknown. The Gospel Hump pack was not counted as a breeding pair for 2005.

### *Hemlock Ridge*

This pack produced its third documented litter in 2005. Because of dense vegetation at the rendezvous site, no pups were seen, but a minimum of 2 was detected based on howling. In addition, at least 4 adults were accounted for based on radio-collared animals, howling, and visual observations, that resulted in a minimum pack size estimate of 6 wolves for 2005. The Hemlock Ridge pack was counted as a breeding pair for 2005.

### *Indian Creek*

Five wolves were observed in the Indian Creek drainage of the Selway River during a winter ungulate survey conducted by IDFG in 2004. Based on this observation, this pack was verified as a documented pack for 2004. Although a report of multiple wolves, including pups, heard howling in this area was received during late September 2005, biologists did not verify reproduction or obtain an estimate of pack size. This pack was not counted as a breeding pair for 2005.

### *Kelly Creek*

Two wolves, females B237 and B238, were captured and radio collared in mid-July. Suspected alpha male B220 led biologists to the general area of this pack's traditional rendezvous site where 2 gray pups were observed and a third was suspected based on howling. Estimated pack size at the end of 2005 was 11 wolves. The long-standing Kelly Creek pack was counted as a breeding pair for 2005.

### *Lochsa*

Reports supplied by the USFS directed biologists to conduct a capture operation in the Lost Creek drainage off the Lochsa River. Female wolf B232 was radio collared in mid-June. She was eventually observed with 3 pups and 2 other adults in the Castle Butte area. Though there has been scant telemetry data thus far, it was likely that this newly documented pack represented the Postoffice Creek area of suspected wolf activity from earlier years. Because B232 was a subadult, indicating prior reproduction for this pack, this group was retroactively added as a documented pack for 2004. Pack size was estimated at 6 individuals in 2005 based on field observations. The Lochsa pack was counted as a breeding pair for 2005.

### *Magruder*

Suspected alpha male B110 has not been located since June 2004 (probably due to expiration of his radio collar) and female B219 not since late May 2005. Efforts to investigate this pack's previously used rendezvous sites were hampered by wildfires, but sparse wolf sign was found, indicating continued wolf presence in the area. The Magruder pack was not counted as a breeding pair for 2005 and there was no estimate of pack size.

### *O'Hara Point*

Suspected alpha male B111 has not been located since October 2004 and it was likely his radio collar expired. Male B162, captured as a pup in 2003, dispersed by mid-May 2005 leaving no radio-collared wolves in this pack. A capture operation was conducted in early June, but no adults were caught. At that time, a rendezvous site was located where 6 black pups were recorded. A minimum of 8 wolves was estimated for this pack in 2005. The O'Hara Point pack was counted as a breeding pair for 2005.

### *Pettibone Creek*

Six wolves were observed in the Pettibone Creek drainage of the Selway River during a winter ungulate survey conducted by IDFG in 2004. Based on this observation, this group was verified as a documented pack for 2004. Evidence of wolves has also been reported near Elk Summit, approximately 10 miles (16 km) north of the headwaters of Pettibone Creek. No estimate of pack size was made and no evidence of reproduction was obtained. The Pettibone Creek pack was not counted as a breeding pair for 2005.

### *Pot Mountain*

This newly documented pack in 2005 was verified when 5 wolves were observed on the flank of Pot Mountain during a winter ungulate survey conducted by IDFG in spring 2005. Field efforts were unsuccessful in locating these wolves and very limited wolf sign was detected in the area. No estimate of pack size was made and no evidence of reproduction was obtained for this year. The Pot Mountain pack was not counted as a breeding pair for 2005.

### *Red River*

By the end of 2004, radio contact was lost with all 3 radio-collared wolves in this pack; B165 was illegally killed, B166's radio collar was suspected to have failed, and B164's radio signal could not be detected. In mid-June 2005, while investigating rendezvous sites previously used by this pack, an off-frequency radio signal was detected that turned out to be that of B166. She was accompanied by a minimum of 2 pups, as determined from howling, in the general vicinity of Porters Mountain south of Elk City, Idaho. An effort was initiated to capture additional members of the pack and/or replace B166's radio collar, but the pack moved away within 2 days of their detection and could not be located again. Wolf B166's radio signal has not been detected since then. Pack size was estimated at 5 wolves for 2005. The Red River pack was counted as a breeding pair for 2005.

### *Selway*

With the death of B5 in late 2004, the last radio-collared wolf in the Selway pack was gone. Monitoring efforts in 2005 included inspection of previously used rendezvous sites, which did not reveal evidence of reproduction. Fresh tracks and scats of at least 1 wolf were located near the traditional den site and an abbreviated capture effort was undertaken, although wildfires in the vicinity caused early termination before any wolves were caught. A report of 6 black wolves in the Meadow Creek drainage in September 2005 provided evidence of continued wolf presence in this pack's territory. Another report was received from an outfitter in the upper Running Creek drainage of 17 black and 1 white wolves. Pack size was estimated at 6-18 wolves in 2005. The Selway pack was not counted as a breeding pair for 2005.

## Documented Border Packs

### *Big Hole (MT)*

Because the Big Hole pack denned in Montana, and the majority of their locations were there as well, this pack was officially counted as a Montana pack for 2005. Fieldwork was conducted in coordination with MTFWP. The pack produced a minimum of 2 pups in 2005 based on estimates from howling. Alpha male B7 and alpha female B11, founders of this pack and members of the initial translocation in 1995, were observed, though their social status within the pack was unknown for 2005. Each of these wolves is now at least 10 years old, and likely nearer 12 years. Minimum estimated pack size at the end of 2005 was 9 wolves based on field

observations. Female wolf B151 was the sole remaining radio-collared wolf in this pack. This pack was counted as a breeding pair for Montana in 2005.

#### *Fish Creek (MT)*

While conducting capture operations nearby, biologists, in coordination with MTFWP, surveyed the Fish Creek drainage in Montana, part of the Central Idaho Experimental Population Area. Six black and 3 gray pups were observed, and howling indicated that at least 3 adults were present as well. Alpha female B235 and adult male B236 were captured and radio collared. Pack size was estimated to be 12 wolves, based on field observations near the rendezvous site. Aerial monitoring indicated that these wolves used portions of the Kelly Creek drainage in Idaho that was part of the Kelly Creek pack's territory as late as 2000, and by the Lupine, and possibly Fish Creek, packs after that. During a December 2005 monitoring flight, MTFWP personnel located B235 and B236 near Deception Saddle, near the southern end of the Five Lakes Butte pack territory. The Deception Saddle area was investigated during early fall 2005, and limited wolf sign, possibly from the Fish Creek pack, was found. This border pack used areas in Idaho and Montana, but based on the location of the den site, was counted as a breeding pair for Montana in 2005.

#### *Lake Como (MT)*

A minimum of 3 wolves was present in this area, as documented by MTFWP, but none were radio collared. No evidence of reproduction was obtained in 2005. Reproduction was last verified for this pack in 2002. Very little was known about wolf activity in this area from 2002 through 2005. For recovery purposes, the Lake Como border pack is counted as a documented pack for Montana. This pack was not counted as a breeding pair for 2005.

#### *Sula (MT)*

The Sula pack, in which 2 wolves were radio collared in spring 2005, used the west side of Highway 93 in the Lost Trail Pass area, southwest of Sula. This pack contained 5 adults and 5 pups at the end of 2005. One of the radio-collared wolves died of natural causes over the summer, leaving 1 radio-collared member for monitoring. The Sula border pack was counted as a breeding pair for Montana in 2005.

### Suspected Resident Packs

#### *B147*

Female B147, who dispersed from the Jureano Mountain pack in 2003, continued residing east of White Bird, Idaho. Despite many attempts to document pack and reproductive status, B147's affiliation with other wolves remained uncertain; 1 other wolf accompanied her during 1 survey effort. A report from USFS personnel suggested a minimum of 4 wolves in this area.

#### *Giant Cedar (B256)*

Utilizing information from local residents, biologists captured and radio collared female wolf B256 north of Elk River, Idaho, in late August. At the time of her capture, sign of 3 wolves was located in this area. Subsequent investigations were able to document B256 accompanied by just 1 other wolf. Reports from bow hunters suggested more wolves might have been present.

#### *Granddad*

In response to a report of 6 wolf pups seen by an outfitter in late May, biologists investigated the area. No evidence of pups was found but while surveying roads in the vicinity, 3 gray adults

were seen. Traps were set in the immediate area of an elk carcass wolves were feeding on, but coyotes scavenging on the remains confounded the capture operation. Hunters reported wolf sign south of Aquarius Campground, in the vicinity of Eagle Peak and Tumble and Sneak Creek drainages. It was not known if wolf sign in these areas might be associated with the documented Pot Mountain pack, the suspected Grandad pack, or other unknown wolves. Howling surveys conducted in the Eagle Peak area did not detect the presence of wolves, but a fresh wolf scat was found.

### Suspected Border Packs

#### *Brooks Creek (MT)*

A radio collar was placed on a wolf in the Brooks Creek drainage in the spring of 2005 by a MTFWP biologist. Field investigations by MTFWP personnel indicated 3 wolves were present. They localized during denning season, but no evidence of reproduction was obtained. The Brooks Creek pack was counted as a documented pack for Montana, but was not counted as a breeding pair for 2005.

### Other Wolf Groups Monitored

#### *B148/B181*

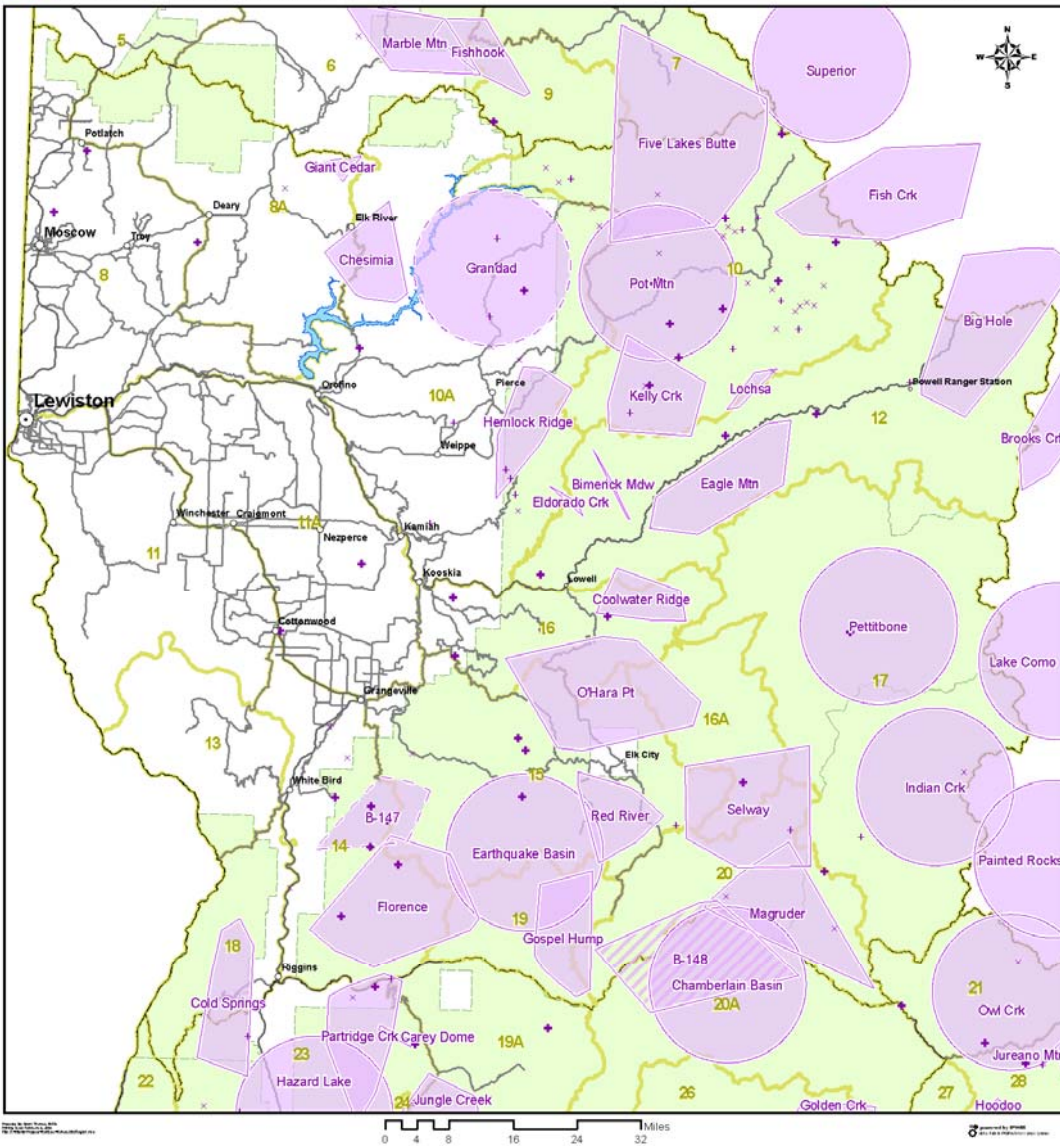
B148, a Big Hole pack member, went missing in 2003. B181, a Partridge Creek pack member, went missing in fall 2004. Radio collar frequencies for these 2 wolves were close together. In 2005, an off-frequency radio collar signal was picked up along the Salmon River above Riggins, Idaho. The frequency of this radio signal fluctuated and overlapped the assigned frequencies for these 2 wolves. As such, biologists were not able to determine if this signal was being emitted from B148's or B181's radio collar. In 2005, B148/181 established a territory along the main Salmon River. Aerial observations indicated there was a minimum of 3 wolves in this wolf group.

# 2005 Clearwater Region Wolf Activity Telemetry, Documented and Suspected Locations

**Telemetry and Research-based Territory (2004-05)\***  
 Documented Pack (Light Purple)  
 Suspected Pack (Medium Purple)  
 Documented Wolf Activity (Pair or Group less than 5 animals) (Hatched Purple)

**Estimated Pack Activity (2004-05)\*\***  
 Documented Pack (Light Purple)  
 Suspected Pack (Medium Purple)  
 Documented Wolf Activity (Pair or Group less than 5 animals) (Hatched Purple)

**Public Observations (2005)\*\*\***  
 Not Specified (x)  
 Single Animal (+)  
 Multiple Animals (•)



\* 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 and the National Park Service. Pack territories are minimum convex polygons of telemetry locations and research observations for radio-collared wolves from 1/1/2004 - 12/31/2005 with outliers removed. Packs which no longer existed in 2005 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 1/1/2004 - 12/31/2005.

\*\*\* Public Observations from 1/1/2005 - 12/31/2005 collected on the Idaho Fish and Game website and reviewed by staff biologists.

Map Produced by Idaho Fish and Wildlife Information System, Idaho Fish and Game in cooperation with: The Nez Perce Tribe, U.S. Fish & Wildlife Service, USDA APHIS Wildlife Services, Montana Fish, Wildlife & Parks, and the National Park Service

Figure 7. Wolf pack activity and observations in the Clearwater Region, 2005.

Table 3. Estimated pack size, reproductive status, mortality, dispersal, monitoring status, and livestock depredation for documented and suspected wolf packs within Idaho Department of Fish and Game Clearwater Region, 2005.

Wolf pack or group	Min. no. wolves observed <sup>a</sup>	Reproductive status			Documented & suspected mortalities					Monitoring status			Confirmed & probable wolf-caused livestock losses		
		Min. no. pups prod.	Reprod. packs	Breeding pairs <sup>o</sup>	Natural	Control <sup>c</sup>	Other		Known dispersal	Active radio collars	Number wolves captured <sup>f</sup>	Number wolves missing <sup>g</sup>	Cattle	Sheep	Dogs
							human <sup>d</sup>	Unknown <sup>e</sup>							
Documented															
Big Hole (MT) <sup>h</sup>															
Bimerick Meadow	4	2	yes	yes	0	0	0	0	0	1	1	0	0	0	0
Chesimia	5	3	yes	no	0	4	0	0	0	1	5	0	6	0	6
Cold Springs	3	?	?	no	0	0	1	0	0	0	0	0	0	0	0
Coolwater Ridge	11	4	yes	yes	0	0	0	0	0	1	0	0	0	0	0
Eagle Mountain	6	4	yes	yes	0	0	0	0	0	1	0	0	0	0	0
Earthquake Basin	8	6	yes	yes	0	0	0	0	0	0	0	0	0	0	0
Eldorado	5	2	yes	yes	0	0	0	0	0	1	1	0	0	0	0
Fish Creek (MT) <sup>h</sup>															
Florence	15	6	yes	yes	0	0	0	0	0	2	0	1	2	0	0
Gospel Hump	?	?	?	no	0	0	0	0	0	0	0	0	0	0	0
Hemlock Ridge	6	2	yes	yes	0	0	0	0	0	2	0	0	0	0	0
Indian Creek	?	?	?	no	0	0	0	0	0	0	0	0	0	0	0
Kelly Creek	11	2	yes	yes	0	0	0	0	0	3	2	0	0	0	0
Lake Como (MT) <sup>h</sup>															
Lochsa	6	3	yes	yes	0	0	0	0	0	1	1	0	0	0	0
Magruder	?	?	?	no	0	0	0	0	0	0	0	1	0	0	0
O'Hara Point	8	6	yes	yes	0	0	0	0	1	0	1	0	0	0	0
Pettibone	?	?	?	no	0	0	0	0	0	0	0	0	0	0	0
Pot Mountain	?	?	?	no	0	0	0	0	0	0	0	0	0	0	0
Red River	6	2	yes	yes	0	0	0	0	0	0	0	2	0	0	0
Selway	6	?	?	no	0	0	0	0	0	0	0	0	0	0	0
Sula (MT) <sup>h</sup>															
Subtotal	100	42			0	4	1	0	1	13	11	4	8	0	6
Suspected															
B147	2	?	?	no	0	0	0	0	0	1	0	0	0	0	0
Brooks Creek (MT) <sup>h</sup>															
Giant Cedar	2	?	?	no	0	0	0	0	0	1	1	0	0	0	0
Grandad	3	?	?	no	0	0	0	0	0	0	0	0	0	0	0
Subtotal	7				0	0	1	0	0	2	1	0	0	0	0
Other groups															
B148/B181 <sup>i</sup>	3	?	?	no	0	0	0	0	0	1	0	0	0	0	0
Unknown					0	0	1	0	0	0	0	0	0	0	0
Subtotal	3				0	0	1	0	0	1	0	0	0	0	0
Regional total	110	42			0	4	3	0	1	16	12	4	8	0	6

<sup>a</sup> Number of wolves observed by wolf program personnel in 2005. Sum of this column does not equate to number of wolves estimated to be present in the population.

Table 3. Continued.

- <sup>b</sup> Breeding pairs are the measure of Federal and State wolf recovery and management goals. A breeding pair is defined as “an adult male and an adult female wolf that have produced at least 2 pups that survive until December 31 of the year of their birth...”.
- <sup>c</sup> Includes agency lethal control and legal take by landowners.
- <sup>d</sup> Includes all other human-related deaths.
- <sup>e</sup> Does not include pups that disappeared before winter.
- <sup>f</sup> Includes all wolves captured during 2005. Most, but not all, were radio-collared.
- <sup>g</sup> Radio-collared wolves that became missing in 2005.
- <sup>h</sup> Border pack officially tallied to (state); territory known or likely shared with Idaho. Data on these packs can be found in Rocky Mountain Wolf Recovery 2005 Interagency Annual Report.
- <sup>i</sup> It was not know if wolf B148 or B181 was part of this group as their radio frequencies are adjacent and cannot be discerned. Only one of these radio-collared individuals was present, not both, in this group.



## **McCall Subregion of the Southwest Region**

The McCall Subregion was home to 12 documented resident and 1 suspected resident wolf packs during 2005 (Figure 8; Table 4). Six of 7 reproductive packs qualified as breeding pairs. The Stolle Meadow pack did not qualify as a breeding pair as just a single pup was observed. All documented mortalities were related to human causes including agency lethal control, legal and illegal take, and accidental take (1 wolf was killed by a vehicle). Female wolf B254 was captured near Grassy Mountain north of McCall, Idaho, in late August during a control action. B254's pack affiliation, if any, was not known and in mid-November 2005, she was killed by a vehicle on Highway 95 north of New Meadows, Idaho. Confirmed and probable wolf-caused losses of cattle were attributed to the Orphan pack and 1 depredation involving unknown wolves. Confirmed and probable wolf-caused losses of sheep were attributed to the Blue Bunch, Carey Dome, Hazard Lake, Jungle Creek, and Partridge Creek packs, as well as unknown wolves. The Partridge Creek pack was also responsible for the death of 1 livestock guard dog. Due to lethal agency control conducted in 2004 and 2005, the statuses of the Hazard Lake and Partridge Creek packs was not known by the end of 2005. Although these packs may no longer exist, both were officially counted as they were present at some point during 2005. Fourteen wolves were captured in this subregion during 2005, which resulted in the deployment of 8 radio collars. One pup was not radio collared because it was too small, 1 wolf escaped, and four were euthanized during agency control actions at the times of their capture.

### Documented Resident Packs

#### *Blue Bunch*

This first-year pack, founded by alpha female B218 and an unknown male, inhabited the area between Council and McCall, Idaho, bounded by Highways 55 and 95. B218 was radio collared in the Monumental Creek drainage in August 2004. She was captured in the vicinity of an active Monumental Creek pack rendezvous site, so was presumed to be a member of that pack. Soon after her capture, however, she departed that area and so may have been a dispersing wolf from another pack and just happened to be moving through the area at the time of her capture. During fall/winter 2004, she traveled to, and was located north of, McCall, Idaho, around Brundage Mountain. By spring, she had established a territory along Red Ridge just south of New Meadows, Idaho. Four gray pups were observed in May around her first den site. This pack was implicated in depredations on domestic sheep in the spring and late fall as sheep bands grazed through this pack's home range, though no control actions were undertaken. An aerial observation in December 2005 indicated this pack included 6 wolves. The Blue Bunch pack was counted as a breeding pair for 2005.

#### *Carey Dome*

This newly documented pack was retroactively added for 2004 based on observations made in 2005. Female wolf B257 was radio collared during a control action in late August 2005 after depredations on domestic sheep in this area. She was seen with 2 other gray wolves on 2 occasions in September 2005, north of Burgdorf, Idaho. During a November 2005 monitoring flight, 9 gray wolves were seen near the mouth of Twentymile Creek, an area within the Jungle Creek pack's territory. No evidence of reproduction was obtained. The Carey Dome pack was not counted as a breeding pair for 2005.

### *Chamberlain Basin*

The traditional den site of this pack was not used for the second consecutive year, possibly indicating that alpha female B16 was no longer present, or no longer held alpha status and a different breeding female selected an alternate den site. Multiple adult wolves were verified by biologists at Cold Meadows in late June and later in the summer near Chamberlain airstrip. Both of these locations were previously used as rendezvous sites by this pack. In addition, a report of possibly 2 pups and a large, white wolf with a radio collar was received from the latter area in early September. The radio-collared wolf was probably either male B9 or female B16, both originally translocated from Canada in 1995. Both B9 and B16 would be at least 10 years old now and likely nearer 12 years. There was a minimum of 6 wolves present in Cold Meadows in early June 2005. Reproduction, though suspected, was not verified; therefore, this pack was not counted as a breeding pair for 2005.

### *Gold Fork*

Only 2 gray wolves were seen during a monitoring flight in winter 2004/2005, presumably the alpha pair. Alpha female B130 was seen with 2 gray pups on different occasions in May and June. The Gold Fork pack was implicated in a depredation on domestic sheep in October, but no control action was undertaken because the sheep were being moved out of the area. Field and aerial observations resulted in a pack count of 4 individuals. This pack was counted as a breeding pair for 2005.

### *Golden Creek*

Two additional wolves, female B229 and male B230, were captured and radio collared in April by researchers from the University of Idaho's Taylor Ranch field station. Previously radio-collared individuals, female B203 and male B204, died during 2005 while dispersing; B203 was illegally killed and B204's death is under investigation. In addition, B230 was found dead during the big game hunting season. Personnel from Taylor Ranch investigated 2 reports of pups from an outfitter working in this pack's territory, though no verification of reproduction was obtained at those times. In mid-October, this pack made a kill at the Taylor Ranch, where the researchers were able to document 2-3 pups among the 7 individuals seen. The Golden Creek pack was counted as a breeding pair for 2005.



*Photo Janet Pope*

Holly and Jim Akenson, researchers at the Taylor ranch captured and collared B229 of the Golden Creek pack.

### *Hazard Lake*

Following lethal control of 3 members of this pack in 2004, it was difficult to monitor this pack. The lone remaining radio-collared wolf, male B183, left the pack's established territory during February 2005 and entered the adjacent Partridge Creek pack home range. B183 was seen with 3 other wolves during a monitoring flight in late May 2005, and in mid-August, B183 was located with B180, the alpha female of the Partridge Creek pack. No evidence of pups was discovered. At that time, wolf depredations on

domestic sheep were occurring nearby and WS was conducting control actions. Eventually both B183 and B180 were lethally removed. Examination of previously documented Hazard Lake pack rendezvous sites indicated that they were not used in 2005. A livestock producer in this pack's territory, who regularly observed these wolves in 2003 and 2004, reported fewer sightings in 2005 and felt there were possibly only 3 present. Based on 2004 pack size and the lethal controls that year, it was estimated that there could be 3-7 wolves remaining in 2005, though the pack may no longer exist. The Hazard Lake pack was not counted as a breeding pair for 2005.

#### *Jungle Creek*

Male wolf B157, the suspected alpha male of this pack, was observed during a winter 2004/2005 monitoring flight with 3 other wolves. Field efforts in June indicated that there were multiple adults and pups present at a rendezvous site. Because of the number of adults present, it seemed likely that this pack's reproduction in 2004 was not detected. This pack was implicated in depredations on domestic sheep in the Twentymile Creek drainage north of McCall, Idaho. Wildlife Services implemented control actions, but no wolves were removed. A minimum of 8 wolves was present during early summer 2005, though during the December 2005 monitoring flight just 5 wolves were observed. This pack was counted as a breeding pair for 2005 and was retroactively counted as a breeding pair in 2004.

#### *Monumental Creek*

Female wolf B218 was captured in this pack's territory in 2004, but she quickly left the area, leaving no radio-collared wolves to monitor there. A second female, B250, was outfitted with a radio collar in late July 2005 after biologists and researchers from the University of Idaho's Taylor Ranch field station located the pack at the same rendezvous site where B218 was caught. Two gray pups were observed along with 5-6 adults in the Monumental Creek drainage. During a mid-November 2005 monitoring flight, 15 gray wolves were observed just inside the Golden Creek pack's territory. This pack was counted as a breeding pair for 2005.

#### *Orphan*

Alpha female B61's radio signal disappeared in January 2005, leaving no radio-collared wolves to monitor. In late May, biologists heard 3 wolves howling while conducting an unsuccessful capture operation near the 2004 den site. In July 2005, cattle producers in Scott Valley east of Cascade, Idaho, reported wolves in the vicinity of their livestock. Biologists confirmed the presence of multiple wolves, including pups, leading to another capture effort in which 2 black adults, 1 male (B246) and 1 female (B244), were radio collared. Subsequent observations indicated the presence of at least 5 adults (2 blacks, 3 grays) and 4 pups (3 blacks, 1 gray), though reports of as many as 6 black adult-sized wolves were received. The presence of gray wolves in this pack was largely unexplained; previously, all known members were black. A possible explanation was that male B117, former alpha of the Gold Fork pack who joined the Orphan pack from January to May 2004, was still present (though his radio signal was not detected) and bred with B61 in 2004. This could account for the presence of gray adult-sized wolves in 2005. Also, a sighting of a large, gray wolf wearing a radio collar was received in late September, which corresponds with B117's description. This pack was implicated in depredations on cattle for the first time in its existence. Control actions were implemented and 3 wolves (2 adults and 1 pup) were shot under shoot-on-sight permits issued to landowners. Female B244 died in October and USFWS Law Enforcement is investigating her death. At the end of 2005, pack size was estimated at 5-6 wolves. The Orphan pack was counted as a breeding pair for 2005.

### *Partridge Creek*

Alpha female B180 did not display signs of denning during spring and subsequent monitoring provided no evidence of reproduction. Her former mate, alpha male B211, was illegally killed in November 2004 and she likely did not acquire a new mate in time for the February breeding season. B180 was located on the north side of the Salmon River during the March and April 2005 monitoring flights, outside of this pack's previously defined territory. Despite B183, a male from the neighboring Hazard Lake pack, moving into the Partridge Creek pack territory in February, these individuals were not located together until mid-August. Several wolf depredations on domestic sheep precipitated control actions that led to lethal removal of 4 wolves, including B180 and B183, from the Partridge Creek pack home range. A female wolf, B254, was radio collared and released during control actions; she was frequently located within this territory, but was not with other wolves. B254 was killed by a vehicle on Highway 95 north of New Meadows, Idaho, in November 2005. The status of the Partridge Creek pack was unknown at the end of the year, and it was not counted as a breeding pair for 2005.

### *Stolle Meadow*

Biologists documented this pack in July by investigating reports of wolf activity from the outfitter operating in this area. The outfitter heard wolves in this area during 2004, and based on data collected in 2005, this pack was retroactively counted for 2004. The suspected alpha female, B249, was captured and radio collared, and a gray pup was caught as well, though it was too small to radio collar. A second capture effort in September resulted in the radio collaring of a large, white, male wolf; possibly the alpha. Subsequent monitoring, ground and aerial, indicated that at least 4 adult wolves (2 blacks, 1 gray, 1 white) were present, but further evidence of pups was not obtained. Because only 1 pup was observed, the Stolle Meadow pack was not counted as a breeding pair for 2005.

### *Thunder Mountain*

No radio collars remained in the Thunder Mountain pack and the current status of this pack was unknown. Discovery of wolf sign in this pack's territory led to a capture effort in late June near a traditional rendezvous site. Following establishment of the trap line, no wolves traveled the area, leaving this pack still uncollared. No evidence of reproduction was obtained and the Thunder Mountain pack was not counted as a breeding pair for 2005.

### Suspected Resident Packs

#### *Oxbow*

The presence of multiple wolves was confirmed in and around the Wildhorse River drainage during winter 2004/2005. Public reports of wolves in the area continued throughout the year.

# 2005 McCall SubRegion Wolf Activity Telemetry, Documented and Suspected Locations

Telemetry and Research-based Territory (2004-05)\*

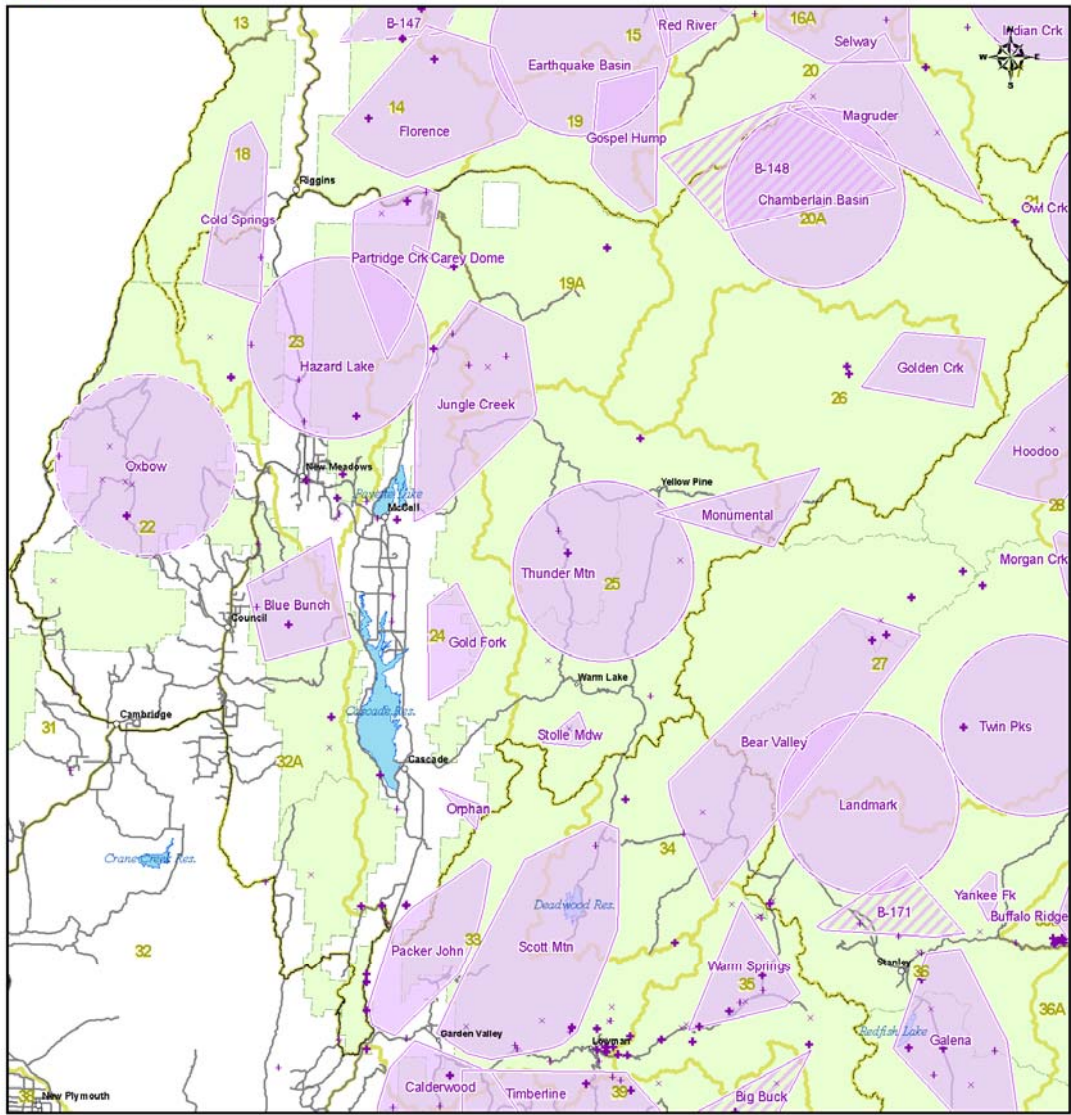
- Documented Pack
- Suspected Pack
- Documented Wolf Activity (Pair or Group less than 5 animals)

Estimated Pack Activity (2004-05)\*\*

- Documented Pack
- Suspected Pack
- Documented Wolf Activity (Pair or Group less than 5 animals)

Public Observations (2005)\*\*\*

- Not Specified
- Single Animal
- Multiple Animals



\* 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 and the National Park Service. Pack territories are minimum convex polygons of telemetry locations and research observations for radio-collared wolves from 1/1/2004 - 12/31/2005 with outliers removed. Packs which no longer existed in 2005 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 1/1/2004 - 12/31/2005.

\*\*\* Public Observations from 1/1/2005 - 12/31/2005 collected on the Idaho Fish and Game website and reviewed by staff biologists.

Map Produced by Idaho Fish and Wildlife Information System, Idaho Fish and Game in cooperation with: The Nez Perce Tribe, U.S. Fish & Wildlife Service, USDA APHIS Wildlife Services, Montana Fish, Wildlife & Parks, and the National Park Service

Figure 8. Wolf pack activity and observations in the McCall Subregion, 2005.

Table 4. Estimated pack size, reproductive status, mortality, dispersal, monitoring status, and livestock depredation for documented and suspected wolf packs within Idaho Department of Fish and Game McCall Subregion, 2005.

Wolf pack or group	Min. no. wolves observed <sup>a</sup>	Reproductive status			Documented & suspected mortalities					Monitoring status			Confirmed & probable wolf-caused livestock losses		
		Min. no. pups prod.	Reprod. packs	Breeding pairs <sup>b</sup>	Natural	Control <sup>c</sup>	Other		Known dispersal	Active radio collars	Number wolves captured <sup>f</sup>	Number wolves missing <sup>g</sup>	Cattle	Sheep	Dogs
							human <sup>d</sup>	Unknown <sup>e</sup>							
Documented															
Blue Bunch	6	4	yes	yes	0	0	0	0	0	1	0	0	0	37	0
Carey Dome	9	?	?	no	0	0	0	0	0	1	1	0	0	4	0
Chamberlain Basin	6	?	?	no	0	0	0	0	0	0	0	0	0	0	0
Gold Fork	4	2	yes	yes	0	0	0	0	0	1	0	0	0	0	0
Golden Creek	7	2	yes	yes	0	0	h <sup>1</sup>	0	2	1	2	0	0	0	0
Hazard Lake	3	?	?	no	0	0	0	0	0	0	0	0	0	9	0
Jungle Creek	8	2	yes	yes	0	0	0	0	0	1	0	0	0	3	0
Monumental	14	2	yes	yes	0	0	0	0	0	1	2	0	0	0	0
Orphan	5	4	yes	yes	0	3	1	0	0	2	2	0	3	0	0
Partridge Creek	?	?	no	no	0	5	0	0	0	0	4	0	0	19	1
Stolle Meadow	4	1	yes	no	0	0	0	0	0	2	3	0	0	0	0
Thunder Mountain	?	?	?	no	0	0	0	0	0	0	0	0	0	0	0
Subtotal	66	17			0	8	2	0	2	10	14	0	3	72	1
Suspected															
Oxbow	?	?	?	no	?	?	?	?	?	0	0	0	0	0	0
Unknown					0	1	1	0	0	1	1	0	1	4	0
Subtotal					0	1	1	0	0	1	1	0	1	4	0
Regional total	66	17			0	9	3	0	2	11	15	0	4	76	1

<sup>a</sup> Number of wolves observed by wolf program personnel in 2005. Sum of this column does not equate to number of wolves estimated to be present in the population.

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

<sup>c</sup> Includes agency lethal control and legal take by landowners.

<sup>d</sup> Includes all other human-related deaths.

<sup>e</sup> Does not include pups that disappeared before winter.

<sup>f</sup> Includes all wolves captured during 2005. Most, but not all, were radio-collared.

<sup>g</sup> Radio-collared wolves that became missing in 2005.

<sup>h</sup> Two wolves died while dispersing from territory.



## Nampa Subregion of the Southwest Region

During 2005, the Nampa Subregion portion of the Southwest Region was home to 6 documented resident wolf packs (Figure 9; Table 5). Four documented packs were counted as breeding pairs. Of the 4 documented mortalities, two were human caused and cause of death could not be determined for the other two. Confirmed sheep and guard dog losses were attributed to the Steel Mountain pack, but no wolves were lethally controlled. Five wolves were captured and radio collared by trapping or aerial darting.

### Documented Resident Packs

#### *Calderwood*

Telemetry monitoring during spring 2005 indicated denning behavior by alpha female B141. However, pup count attempts were not possible due to private land issues. Ground and aerial capture efforts were unsuccessful. A maximum of 4 gray wolves was observed during aerial capture operations. The Calderwood pack was not implicated in livestock depredations. Pack size was estimated at a minimum of 4 gray wolves and this pack was not counted as a breeding pair for 2005.

#### *Packer John*

Ground monitoring led to an observation of 2 black and 1 gray pups, and 1 additional pup may have been present. In late summer, a dead uncollared gray wolf was found in Round Valley south of Cascade, Idaho. This was likely a member of the Packer John pack. In fall 2005, wolves were reported running through a flock of sheep in Round Valley. The herder harassed the wolves by shooting over their heads and no livestock were injured. No depredations were reported despite close proximity to livestock operations. Two black adults, males B261 and B262, were captured during IDFG helicopter capture efforts in December 2005. This second-year pack had a minimum of 7 wolves (3 blacks, 4 grays) and was counted as a breeding pair for 2005.



*Photo Michael Lucid*

IDFG research biologist George Pauley with wolf B262 of the Packer John pack captured by aerial darting in December.

#### *Scott Mountain*

Alpha male B115 was not located in 2005, possibly due to a failed radio collar. Subordinate male B177 was not located after March 2005, indicating he may have dispersed. Despite occasional locations of pack members near historic rendezvous sites, little evidence existed to suggest this pack produced pups in 2005. A gray male, B263, was radio collared during helicopter capture operations in December 2005. This fifth-year pack had a minimum of 8 gray pack members. The Scott Mountain pack was not counted as a breeding pair for 2005.

### *Steel Mountain*

Subordinate female B188 spent considerable time away from other radio-collared pack members during spring 2005. In late spring 2005, however, she was back with other pack members. Female B186 was last located with other pack members in early March 2005. She has not been located since and was assumed to have dispersed. In June 2005, 2 gray and 2-5 black pups were observed at a rendezvous site. In August 2005, Steel Mountain pack members were implicated in a confirmed guard dog injury as well as 48 confirmed and 7 probable sheep kills. A control operation to lethally remove a majority of pack members was conducted following this depredation, but was unsuccessful. This fourth-year pack had a minimum of 9 wolves (5 blacks, 4 grays) and was counted as a breeding pair for 2005.

### *Timberline*

Status of wolf packs east of Idaho City, Idaho, has remained unclear for several years. In 2004, gray males B154 and B155 were initially localized east of Idaho City, Idaho, but both moved to the Featherville, Idaho, area by the end of the year. They were located east of Featherville during December 2004 and January 2005 monitoring flights. During the February 2005 flight, biologists detected a mortality signal from B154 in this same area.



*Photo Nate Borg*

IDFG wolf biologist Michael Lucid with wolf subadult female B231 of the Timberline pack.

The carcass of B154 revealed no evidence of illegal activity, though only the radio collar and remnants of hide were present. B155 was not located again until its carcass was discovered in the Boise River. The death of B155 is under investigation. In May 2005, B231, a subadult gray female wolf, was captured east of Idaho City. It was unclear whether this wolf was associated with the Timberline pack; however, she was consistently located in areas previously used by Timberline pack members. Monitoring of B231 led to a count of 3 gray pups; however, no adults other than B231 were observed at the rendezvous site. In fall 2005, B231's radio collar was retrieved after having been chewed off by other pack members. Multiple wolves were heard howling in the vicinity of the chewed-off radio collar, prompting a capture operation. No wolves were caught and the pack remained without radio collars. This fourth-year pack had a minimum of 6 gray wolves. The Timberline pack was counted as a breeding pair for 2005.

### *Warm Springs*

Multiple pups were heard vocalizing and pup sign was verified at a rendezvous site during spring and summer 2005, but sightings of pups were not obtained. In spring 2005, an uncollared gray wolf was illegally shot near Banner Summit. This wolf was thought to be a member of the Warm Springs pack. Members of this pack were heard howling by many recreationists and biologists in the vicinity of Bull Trout Lake campground throughout the summer. This second-year pack had a minimum of 7 gray pack members and was counted as a breeding pair for 2005.



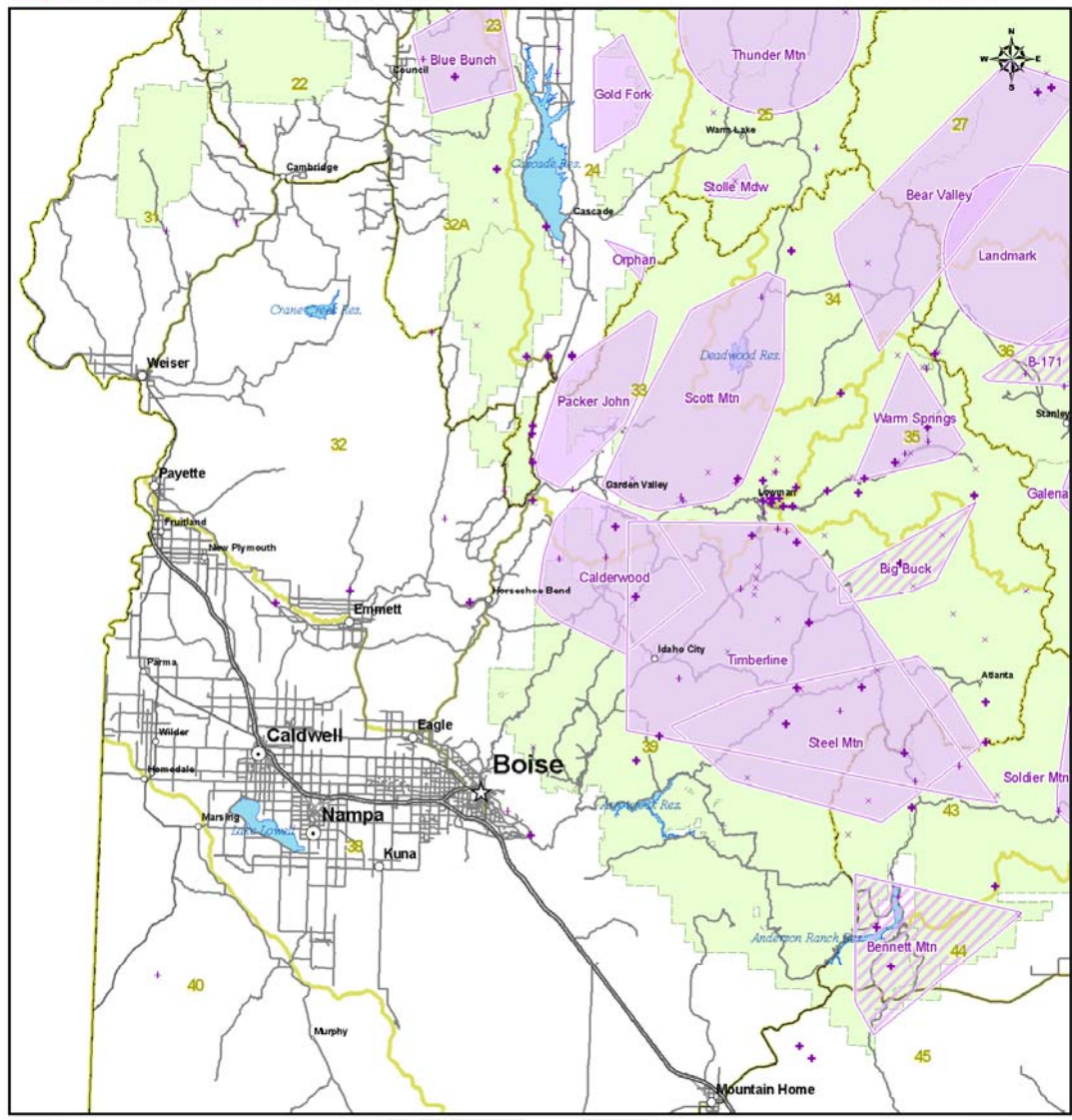
## Other Wolf Groups Monitored

### *Big Buck (B255)*

Several reports led biologists to investigate the Graham and Grandjean, Idaho, areas for wolf sign. Occasional wolf sign was observed in both areas from June-July 2005. In August 2005, a capture effort was undertaken in the Graham area. No wolves were captured, but 1 black and 2 gray wolves were observed together. In late August 2005, a second capture effort in the Sawtooth Wilderness resulted in radio collaring B255, a black subadult female. Pup count attempts were unsuccessful and B255 was highly mobile between Graham and Grandjean. In November and December 2005, biologists twice observed 1 black and 2 gray wolves during monitoring flights. This group was not implicated in livestock depredations, although a shepherd reported his guard dogs had fought with these wolves.

# 2005 Nampa SubRegion Wolf Activity Telemetry, Documented and Suspected Locations

Telemetry and Research-based Territory (2004-05)\*      Estimated Pack Activity (2004-05)\*\*      Public Observations (2005)\*\*\*



\* 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 and the National Park Service. Pack territories are minimum convex polygons of telemetry locations and research observations for radio-collared wolves from 1/1/2004 - 12/31/2005 with outliers removed. Packs which no longer existed in 2005 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 1/1/2004 - 12/31/2005.  
 \*\*\* Public Observations from 1/1/2005 - 12/31/2005 collected on the Idaho Fish and Game website and reviewed by staff biologists.

Map Produced by Idaho Fish and Wildlife Information System, Idaho Fish and Game in cooperation with: The Nez Perce Tribe, U.S. Fish & Wildlife Service, USDA APHIS Wildlife Services, Montana Fish, Wildlife & Parks, and the National Park Service

Figure 9. Wolf pack activity and observations in the Nampa Subregion, 2005.

Table 5. Estimated pack size, reproductive status, mortality, dispersal, monitoring status, and livestock depredation for documented and suspected wolf packs within Idaho Department of Fish and Game Nampa Subregion, 2005.

Wolf pack or group	Min. no. wolves observed <sup>a</sup>	Reproductive status			Documented & suspected mortalities					Monitoring status			Confirmed & probable wolf-caused livestock losses		
		Min. no. pups prod.	Reprod. packs	Breeding pairs <sup>b</sup>	Natural	Control <sup>c</sup>	Other human <sup>d</sup>	Unknown <sup>e</sup>	Known dispersal	Active radio collars	Number wolves captured <sup>f</sup>	Number wolves missing <sup>g</sup>	Cattle	Sheep	Dogs
Documented															
Calderwood	4	?	no	no	0	0	0	0	0	1	0	0	0	0	0
Packer John	7	3	yes	yes	0	0	0	1	0	3	2	0	0	0	0
Scott Mountain	8	0	no	no	0	0	0	0	0	2	1	2	0	0	0
Steel Mountain	14	4	yes	yes	0	0	0	0	0	3	0	1	0	59	1
Timberline	6	3	yes	yes	0	0	1	1	0	0	1	0	0	0	0
Warm Springs	7	2	yes	yes	0	0	1	0	0	1	0	1	0	0	0
Subtotal	46	12			0	0	2	2	0	10	4	4	0	59	1
Other groups															
Big Buck	3	0	no	no	0	0	0	0	0	1	1	0	0	0	0
Subtotal	3	0			0	0	0	0	0	1	1	0	0	0	0
Regional total	49	12			0	0	2	2	0	11	5	4	0	59	1

<sup>a</sup> Number of wolves observed by wolf program personnel in 2005. Sum of this column does not equate to number of wolves estimated to be present in the population.

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

<sup>c</sup> Includes agency lethal control and legal take by landowners.

<sup>d</sup> Includes all other human-related deaths.

<sup>e</sup> Does not include pups that disappeared before winter.

<sup>f</sup> Includes all wolves captured during 2005. Most, but not all, were radio-collared.

<sup>g</sup> Radio-collared wolves that became missing in 2005.

## Magic Valley Region

During 2005, the Magic Valley Region was home to 2 documented resident wolf packs, one of which counted as a breeding pair (Figure 10; Table 6). Both packs were implicated in confirmed sheep losses.

### Documented Resident Packs

#### *Hyndman*

In August 2005, confirmed wolf depredations on sheep in Hyndman Creek led to documentation of this pack. Female wolf B194, her whereabouts unknown up to this point, dispersed from her natal Buffalo Ridge pack and founded the Hyndman pack. B194, the suspected alpha female, was lethally removed during control actions. This first-year pack had a minimum of 3 members, including a minimum of 2 pups, but was not counted as a breeding pair for 2005 due to B194's removal.

#### *Soldier Mountain*

In June 2005, 2 gray and 2 black pups were observed at a rendezvous site. Observations of pack members at this time indicated the possibility of mange; however, subsequent observations during winter indicated this was not the case. In September 2005, this pack was implicated in 13 probable sheep kills and 1 probable guard dog injury in the Beaver Creek drainage 22 miles (35 km) south of Stanley, Idaho. This fourth-year pack had a minimum of 12 wolves (7 black, 5 gray) and was counted as a breeding pair for 2005.



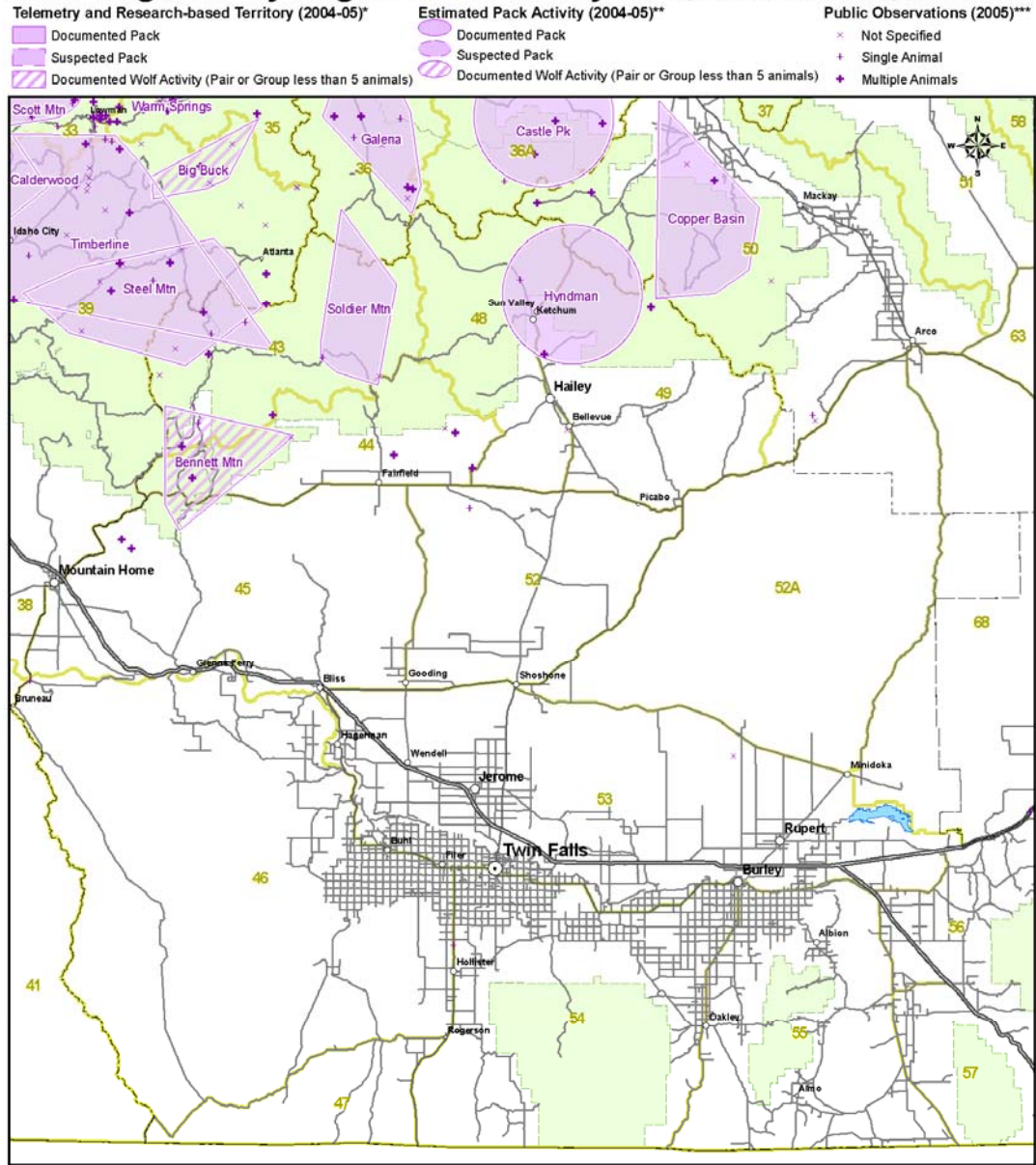
Members of the Soldier Mountain pack. Photo Michael Lucid

### Other Wolf Groups Monitored

#### *Bennett Mountain*

Sole radio-collared wolf, B199, was located sporadically throughout 2005. She was located in January 2005, near Anderson Ranch Reservoir and then observed with another gray wolf near Little Camas Reservoir in March 2005. She was aurally located in April 2005, in the Lime Creek drainage. Efforts to obtain a pup count were thwarted by private land issues; however, extensive movements throughout the spring indicated she likely did not produce pups. B199 was not observed after March 2005, but her radio signal was once again located during the August 2005 monitoring flight in the High Prairie area. B199 was not implicated in livestock depredations during 2005.

# 2005 Magic Valley Region Wolf Activity Telemetry, Documented and Suspected Locations



\* 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 and the National Park Service. Pack territories are minimum convex polygons of telemetry locations and research observations for radio-collared wolves from 1/1/2004 - 12/31/2005 with outliers removed. Packs which no longer existed in 2005 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 1/1/2004 - 12/31/2005.

\*\*\* Public Observations from 1/1/2005 - 12/31/2005 collected on the Idaho Fish and Game website and reviewed by staff biologists.

Map Produced by Idaho Fish and Wildlife Information System, Idaho Fish and Game in cooperation with: The Nez Perce Tribe, U.S. Fish & Wildlife Service, USDA APHIS Wildlife Services, Montana Fish, Wildlife & Parks, and the National Park Service

Figure 10. Wolf pack activity and observations in the Magic Valley Region, 2005.



Table 6. Estimated pack size, reproductive status, mortality, dispersal, monitoring status, and livestock depredation for documented and suspected wolf packs within Idaho Department of Fish and Game Magic Valley Region, 2005.

Wolf pack or group	Min. no. wolves observed <sup>a</sup>	Reproductive status			Documented & suspected mortalities					Monitoring status			Confirmed & probable wolf-caused livestock losses			
		Min. no. pups prod.	Reprod. packs	Breeding pairs <sup>b</sup>	Natural	Control <sup>c</sup>	Other human <sup>d</sup>	Unknown <sup>e</sup>	Known dispersal	Active radio collars	Number wolves captured <sup>f</sup>	Number wolves missing <sup>g</sup>	Cattle	Sheep	Dogs	
Documented																
Hyndman	3	2	yes	no	0	1	0	0	0	0	0	0	0	0	9	0
Soldier Mountain	12	4	yes	yes	0	0	0	0	0	4	0	0	0	34	0	
Subtotal	15	6			0	1	0	0	0	4	0	0	0	43	0	
Other groups																
Bennett Mountain	1	0	no	no	0	0	0	0	0	1	0	1	0	0	0	
Unknown					0	0	0	0	0	0	0	0	0	8	0	
Subtotal	1	0			0	0	0	0	0	1	0	1	0	8	0	
Regional total	16	6			0	1	0	0	0	5	0	1	0	51	0	

<sup>a</sup> Number of wolves observed by wolf program personnel in 2005. Sum of this column does not equate to number of wolves estimated to be present in the population.

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

<sup>c</sup> Includes agency lethal control and legal take by landowners.

<sup>d</sup> Includes all other human-related deaths.

<sup>e</sup> Does not include pups that disappeared before winter.

<sup>f</sup> Includes all wolves captured during 2005. Most, but not all, were radio-collared.

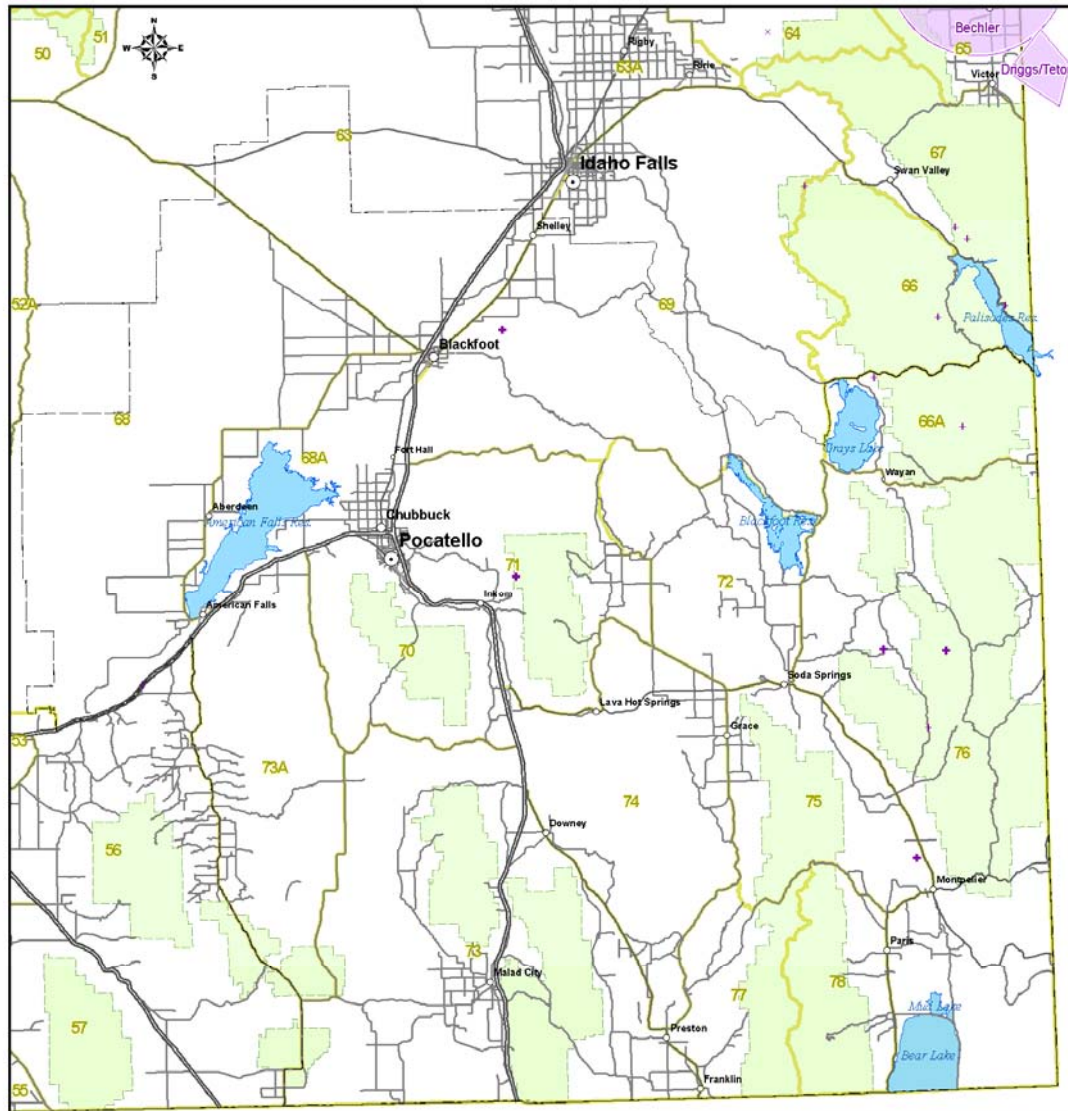
<sup>g</sup> Radio-collared wolves that became missing in 2005.

## Southeast Region

There were no established packs documented in the Southeast Region during 2005 (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.

### 2005 Southeast Region Wolf Activity Telemetry, Documented and Suspected Locations

- |  |  |                                      |
|--|--|--------------------------------------|
| <b>Telemetry and Research-based Territory (2004-05)*</b>     | <b>Estimated Pack Activity (2004-05)**</b>                   | <b>Public Observations (2005)***</b> |
| Documented Pack  | Documented Pack  | Not Specified                        |
| Suspected Pack   | Suspected Pack   | Single Animal                        |
| Documented Wolf Activity (Pair or Group less than 5 animals) | Documented Wolf Activity (Pair or Group less than 5 animals) | Multiple Animals                     |



\* 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 and the National Park Service. Pack territories are minimum convex polygons of telemetry locations and research observations for radio-collared wolves from 1/1/2004 - 12/31/2005 with outliers removed. Packs which no longer existed in 2005 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 1/1/2004 - 12/31/2005.  
 \*\*\* Public Observations from 1/1/2005 - 12/31/2005 collected on the Idaho Fish and Game website and reviewed by staff biologists.

Map Produced by Idaho Fish and Wildlife Information System, Idaho Fish and Game in cooperation with: The Nez Perce Tribe, U.S. Fish & Wildlife Service, USDA APHIS Wildlife Services, Montana Fish, Wildlife & Parks, and the National Park Service

Figure 11. Wolf pack activity and observations in the Southeast Region, 2005.

## Upper Snake Region

The Upper Snake Region was home to 2 documented resident, 2 documented border, and 1 suspected resident packs during 2005 (Figure 12; Table 7). While both Copper Basin and Biscuit Basin packs reproduced, only the Biscuit Basin pack qualified as a breeding pair; lethal control removed all breeding-age wolves from the Copper Basin pack and thus precluded them from breeding pair status. A male wolf, B260, was caught in a coyote trap between Challis and Arco, Idaho. This wolf was radio collared and released on site; however, it was found dead weeks later and its cause of death was under investigation by USFWS Law Enforcement. The primary source of mortality was lethal control ( $n = 11$ ), followed by other human causes ( $n = 1$ ), unknown causes ( $n = 1$ ), and natural causes ( $n = 1$ ). Confirmed and probable cattle losses were attributed to the Copper Basin pack, as well as B193, a disperser from the Buffalo Ridge pack. There were no confirmed or probable sheep losses. One wolf was captured and radio collared after being caught in a coyote trap, but this wolf died shortly thereafter.

### Documented Resident Packs

#### *Biscuit Basin*

The Biscuit Basin pack was founded in 2004 by a dispersing female wolf from Wyoming's Nez Perce pack. The Biscuit Basin pack bred in the Madison-Firehole area of Yellowstone National Park in 2004, then moved west into Idaho and settled in the Warm River area in 2005. The alpha female, 340F, and a young male, 474M, were radio collared. The radio collar of a third pack member, 476F, was collected from the Fall River in July 2005. Telemetry locations and ground observations indicated this pack ranged from the Fall River north to Black Canyon. Two pups were documented in July and a December aerial observation documented a minimum of 7 individuals. The Biscuit Basin pack was counted as a breeding pair for 2005.

#### *Copper Basin*

The Copper Basin pack was documented in 2004 when 2 wolves were radio collared in response to livestock depredations in the area. Aerial monitoring of these wolves, suspected alpha male B224 and subadult female B227, indicated this pack denned in Copper Basin and ground observations determined 2 pups were present in 2005. This pack's home range coincides with an area containing a large concentration of cattle. As in 2004, this pack depredated on cattle during summer 2005. Given their history of repeated depredations, 9 wolves were lethally removed, including B224, to alleviate livestock losses. B227 was not lethally removed with the hope she would care for the surviving pups. Monitoring flights in fall 2005 indicated she was traveling with 2 uncollared wolves, presumably the pups. Furthermore, female wolf B197, a dispersing Morgan Creek pack member, which had been missing for several months, was also located with the 3 Copper Basin wolves. Because of wolf control measures, this pack did not contain breeding adults at the end of the year and was not counted as a breeding pair for 2005.

### Documented Border Packs

#### *Bechler (WY)*

The Bechler pack was a Wyoming-documented pack that occasionally used the Idaho side of the state border near Driggs, Idaho.



*Driggs/Teton (WY)*

The Driggs/Teton pack was a Wyoming-documented pack that occasionally crossed the Wyoming border into Idaho.

Suspected Resident Packs

*Bishop Mountain*

Bishop Mountain was a suspected newly-formed group of wolves that appeared to be derived from the Nez Perce pack of Yellowstone National Park. There were no radio collars in this group, and they did not appear to localize; therefore, reproduction was not verified.

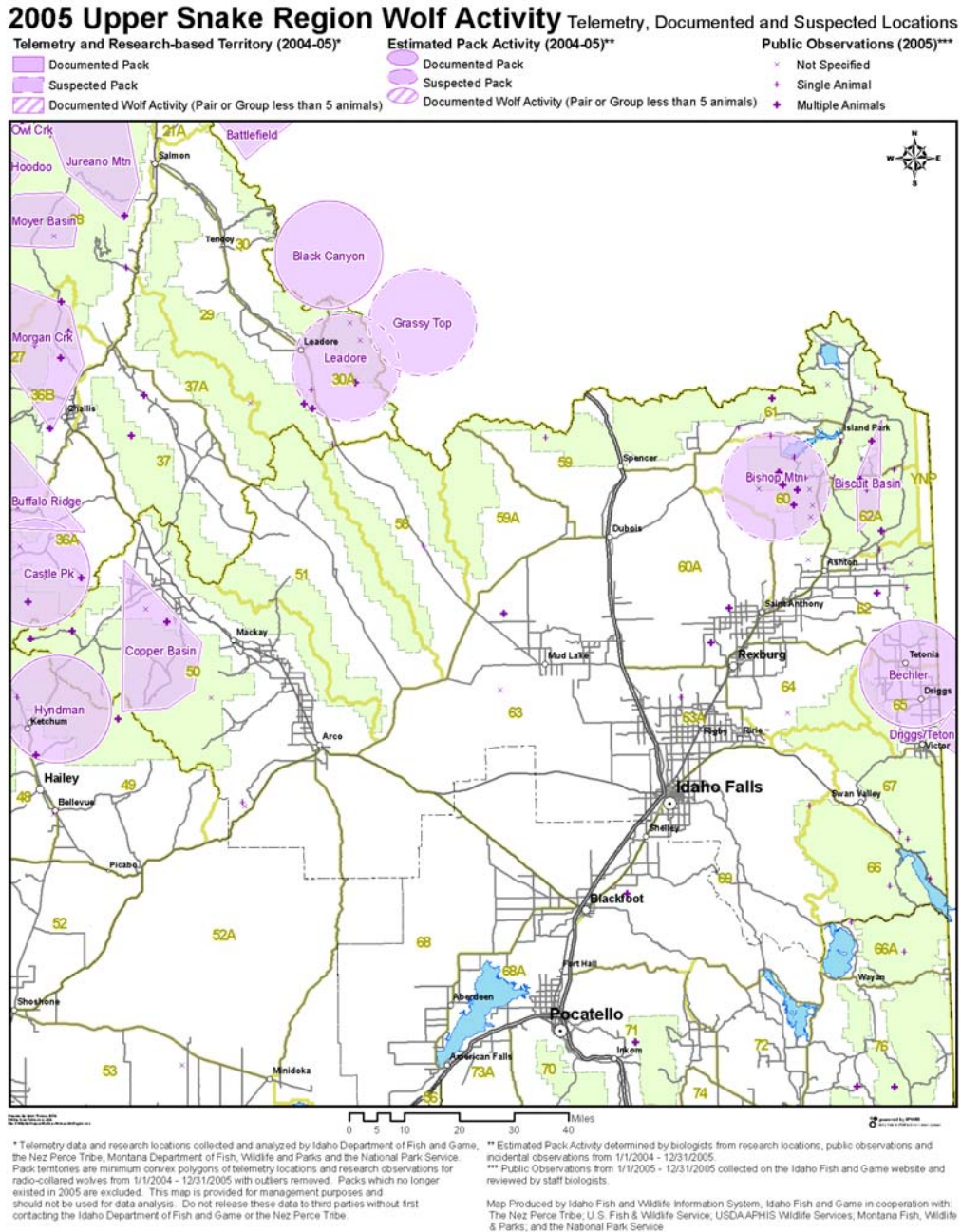


Figure 12. Wolf pack activity and observations in the Upper Snake Region, 2005.

Table 7. Estimated pack size, reproductive status, mortality, dispersal, monitoring status, and livestock depredation for documented and suspected wolf packs within Idaho Department of Fish and Game Upper Snake Region, 2005.

Wolf pack or group	Min. no. wolves observed <sup>a</sup>	Reproductive status			Documented & suspected mortalities					Monitoring status			Confirmed & probable wolf-caused livestock losses		
		Min. no. pups prod.	Reprod. packs	Breeding pairs <sup>b</sup>	Natural	Control <sup>c</sup>	Other human <sup>d</sup>	Unknown <sup>e</sup>	Known dispersal	Active radio collars	Number wolves captured <sup>f</sup>	Number wolves missing <sup>g</sup>	Cattle	Sheep	Dogs
Documented															
Bechler (WY) <sup>h</sup>															
Biscuit Basin	7	2	yes	yes	0	0	1	0	0	2	0	0	0	0	0
Copper Basin	4	2	yes	no	0	9	0	0	0	2	0	0	8	0	0
Driggs/Teton (WY) <sup>h</sup>															
Disperser					0	1	0	0	0	0	0	0	1	0	0
Subtotal	11	4			0	10	1	0	0	4	0	0	9	0	0
Suspected															
Bishop Mountain	4	?	?	?	0	0	0	0	0	0	0	1	0	0	0
Unknown					1	1	0	1	0	0	1	0	0	0	0
Subtotal	4				1	1	0	1	0	0	1	1	0	0	0
Regional total	15	4			1	11	1	1	0	4	1	1	9	0	0

<sup>a</sup> Number of wolves observed by wolf program personnel in 2005. Sum of this column does not equate to number of wolves estimated to be present in the population.

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

<sup>c</sup> Includes agency lethal control and legal take by landowners.

<sup>d</sup> Includes all other human-related deaths.

<sup>e</sup> Does not include pups that disappeared before winter.

<sup>f</sup> Includes all wolves captured during 2005. Most, but not all, were radio-collared.

<sup>g</sup> Radio-collared wolves that became missing in 2005.

<sup>h</sup> Border pack officially tallied to (state); territory known or likely shared with Idaho. Data on these packs can be found in Rocky Mountain Wolf Recovery 2005 Interagency Annual Report.

## Salmon Region

The Salmon Region was occupied by 13 documented resident, 3 documented border, and 1 suspected border packs during 2005 (Figure 13; Table 8). All 9 reproductive packs also qualified as breeding pairs; lack of radio collars prevented determining the reproductive status of the remaining 4 resident packs. Human-related deaths were the primary source of mortality ( $n = 4$ ), followed by lethal control ( $n = 2$ ), and unknown cause of death ( $n = 1$ ). Confirmed and probable wolf-caused losses of cattle were attributed to the Buffalo Ridge, Galena, and Moyer Basin packs. Confirmed and probable wolf-caused losses of sheep were attributed to the Castle Peak/East Pass and Galena packs. The Galena pack was responsible for the death of 1 livestock guard dog. Eight wolves were captured, resulting in the deployment of 5 radio collars. One wolf was released due to potential drugging complications related to heat stress, another escaped, and a pup too small to be radio collared was released.

### Documented Resident Packs

#### *Bear Valley*

Due to similarities in home range use, there has been some speculation that this pack may be the old Landmark pack, which lost its remaining radio collar several years ago. However, a search of a historic Landmark pack rendezvous site revealed recent wolf activity about the same time the Bear Valley pack was known to be elsewhere, suggesting the Bear Valley pack is a separate pack. Although the suspected alpha male was illegally killed in fall 2004, fieldwork verified a minimum of 3 pups in 2005, confirming the alpha female had found a new mate. Winter telemetry flights yielded a pack count of 8 wolves. This pack was counted as a breeding pair for 2005.



Wolf pups keep busy at a rendezvous site until adults return.

*Photos Jason Husseman*

#### *Buffalo Ridge*

In early 2005, 4 radio collars were being monitored in this pack. However, by February 2005, male B193 had dispersed and was lethally controlled near a depredation site. Another wolf, female B194, also dispersed in spring 2005 and was later lethally controlled east of Ketchum, Idaho, following a livestock depredation. Based upon howling and other sign, it appeared B194 was associated with an unknown pack of wolves with pups (see Hyndman). After losing these 2 radio-collared individuals, male B196, a dispersing wolf from the Morgan Creek pack, joined the Buffalo Ridge pack in February 2005. Reproduction in this pack was confirmed, with 6-7 pups observed near a den site. The Buffalo Ridge pack was counted as a breeding pair for 2005.

### *Castle Peak (East Pass)*

The status of this pack has been unknown since the disappearance of B195, the sole radio-collared wolf in the pack, in March 2004. Observations of tracks during winter 2004/2005 in the East Fork Salmon River drainage, within the traditional home range of this pack, suggested these wolves were still present. However, a search of a 2003 rendezvous site and surrounding area revealed no wolf activity. In August 2005, a report of wolves with pups in East Pass Creek was received and, after investigation, biologists confirmed the presence of several adults but no definitive evidence of pups. Subsequent reports and field investigations indicated a pack of wolves using the area frequented in the past by the Castle Peak pack, but there was no definitive proof that these were the same wolves. While reproduction was reported, it could not be verified, and this pack was not counted as a breeding pair for 2005.

### *Galena*

The Galena pack once again denned and reared a litter of pups in the Sawtooth Valley, with field observations verifying the presence of a minimum of 3 pups. Wolf B171, a pup from 2003, dispersed from her natal home range in early summer 2005, temporarily leaving just 2 radio-monitored wolves in this pack. However, during a control action in August 2005, a large male wolf, B253, was radio collared. In addition, another adult female was also caught but released uncollared; the wolf was showing signs of heat stress so it was decided to release her rather than risk putting her under anesthesia. Aerial observations in late fall 2005 resulted in a pack count of 11 wolves. This pack was counted as a breeding pair for 2005.

### *Hoodoo*

Wolf Y239 was captured and re-collared in August 2004 near McCall, Idaho, and subsequently migrated to the Middle Fork Salmon River. During monitoring flights in winter 2004/2005, he was seen with another black wolf and it was surmised that he had paired with a female and that they would produce pups in spring. As expected, Y239 localized in a tributary on the east side of the Middle Fork, where he and his mate presumably denned. However, due to its remoteness, this site was not surveyed. In late summer 2005, a report of wolf pups in the Bighorn Crags, a remote, mountainous region due east of Y239's suspected den site, was investigated; Y239's radio signal was detected in the area where the pups had been reported. Further effort revealed that the area was being used as a rendezvous site by Y239's pack, and a minimum of 2 pups were verified. Subsequent aerial counts of 7 wolves suggested that there may have been more than 2 pups. This pack was counted as a breeding pair for 2005.

### *Hughes Creek*

While a pack of wolves using the west side of the North Fork Salmon River had been suspected for the past several years, their presence was not officially confirmed until 7-8 wolves were observed during an IDFG big game helicopter survey in January 2005. These wolves were retroactively listed as a documented pack for 2004. During summer 2005, a trapping effort was initiated to attempt to capture and radio collar a member of this pack. Unfortunately no wolves were caught. However, while searching for wolf sign in the area personnel discovered a rendezvous site where a total of 5 pups were observed. This pack was counted as a breeding pair for 2005.

### *Jureano Mountain*

As in the past, the Jureano Mountain pack used traditional denning and rendezvous sites in the Panther Creek drainage. Field investigations verified a minimum of 3 pups and a total of 11 wolves in this pack. The Jureano Mountain pack was counted as a breeding pair for 2005.





A member of the Jureano Mountain pack.

Photo Jason Husseman

### *Landmark*

While there have been no radio-collared wolves in the Landmark pack since February 2003, field investigations in areas of past use revealed the presence of wolves. While a search of a historic den location in 2004 indicated that these wolves were present but not using that den, another search in summer 2005 located a probable rendezvous site in close proximity. Furthermore, a significant amount of wolf sign was located in the area, suggesting these wolves continued to function as

a pack. However, because pups could not be verified based on evidence at the suspected rendezvous site, this pack was not counted as a breeding pair for 2005 (see also Bear Valley).

### *Morgan Creek*

In 2005, the Morgan Creek pack denned and reared a litter of 5 pups near their 2004 den site. Wolf B228, originally radio collared after being caught in a coyote trap, dispersed to Big Hole Valley, Montana, in April 2005; he was legally shot in May 2005 when he was observed chasing cattle. After roaming widely in 2004, dispersing wolf B196 joined the Buffalo Ridge pack in February 2005. In November 2005, biologists counted 13 wolves during a monitoring flight. The Morgan Creek pack was counted as a breeding pair for 2005.



Photo Jason Husseman

Moyer Basin Pack den site.

### *Moyer Basin*

The Moyer Basin pack produced a litter in 2005, with a total of 5 pups observed at their den. Also, 2 wolves with radio collars were observed, one presumably being B97, whose radio collar had been malfunctioning for over 1 year. In July 2005, a trapping effort was initiated to bolster the number of radio-collared wolves in the pack, where alpha female B145 was the lone radio-collared wolf. Trapping efforts resulted in the capture and radio collaring of 3 additional wolves in this pack, males B240, B242, and B243. In October 2005, the Moyer Basin pack was implicated in a depredation and B97 was lethally controlled, confirming his membership with the pack during the interval when he was not actively monitored. Monitoring flights in late fall 2005 indicated at least 10 wolves in this pack. This pack was counted as a breeding pair for 2005.

### *Owl Creek*

Little is known of this pack, which appeared to use the steep slopes north of the Salmon River downstream from Shoup, Idaho. During an IDFG ungulate survey in January 2005, 9-10 wolves were observed, verifying them as a documented pack. However, since reproductive status was unknown, this pack was not counted as a breeding pair for 2005.

### *Twin Peaks*

Despite not having radio-collared wolves in the Twin Peaks pack since late 2001, until recently, biologists were able to verify reproduction due to the high degree of site fidelity these wolves exhibited for their traditional den site. However, no sign of wolves was observed when their den/rendezvous site in the Frank Church River-of-No-Return Wilderness was surveyed in summer 2005. The status of the Twin Peaks pack was unknown by the end of 2005 and this pack was not counted as a breeding pair for 2005.

### *Yankee Fork*

During late winter 2004/2005, biologists received reports of multiple wolves north of the Salmon River between Clayton and Stanley, Idaho. In August 2005, responding to a report of wolves in the Yankee Fork drainage within this area, a capture effort resulted in the radio collaring of subadult female B252. Additionally, a minimum of 2 pups was heard howling in the vicinity of the trapline. While the extent of this pack's home range was unknown, a limited number of monitoring flights suggested these wolves occupied the area west of the Buffalo Ridge pack's home range. Monitoring flights indicated a minimum of 8 wolves in this pack. The Yankee Fork pack was counted as a breeding pair for 2005.

## Documented Border Packs

### *Battlefield (MT)*

The Battlefield pack is a Montana-documented pack whose territory overlapped into Idaho around the Gibbonsville, Idaho, area. In January 2005, this pack numbered 9 individuals and in spring had a litter of 5 pups. As in the past, depredations in Montana's Big Hole Valley throughout the livestock-grazing season led to control actions that resulted in lethal removal of 6 pack members. In addition, 3 wolves were legally shot by private landowners under provisions of the 10(j) Rule. In November and December 2005, the sole radio-collared Battlefield wolf was located on the Idaho side of the border. By the end of 2005, this pack numbered 5 wolves (2 adults, 3 pups). The Battlefield pack was counted as a breeding pair for Montana in 2005.

### *Black Canyon (MT)*

The Black Canyon pack is a Montana-documented pack. Although there was no evidence that this pack's territory overlapped into Idaho, this pack was considered a border pack because of the close proximity to the Montana/Idaho border around the upper Lemhi River area. The Black Canyon pack did not contain radio-collared wolves and produced at least 1 pup in 2005. They resided in the Horse Prairie and southern end of the Big Hole Valley areas of Montana. This pack was involved in livestock depredations that led to lethal removal of 3 individuals, including the alpha female. At the end of 2005, a minimum of 4 wolves remained. This pack was counted as a documented pack for Montana, but was not counted as a Montana breeding pair for 2005 because only 1 pup was verified and the alpha female was lethally removed.

### *Painted Rocks (MT)*

The Painted Rocks group is a Montana-documented pack. Although there was no evidence of this pack using Idaho, it was considered a border pack because of the close proximity to the Montana/Idaho border around the Northfork, Idaho, area. Capture attempts were made in the vicinity of Painted Rocks Reservoir by MTFWP personnel based on wolf sign found in 2005. A rendezvous site was located and sign in the area indicated production of at least 2 pups in 2005. Tracking by MTFWP and public reports suggested a minimum of 3 adults. Radio-collared female B67 inhabited this area for much of 2001 and 2002, but reproduction was not confirmed nor was there evidence of more than 2 individuals. It was possible that either of 2 documented packs on the Idaho side of the border, Owl Creek or Hughes Creek, could be one and the same as Painted Rocks, as both of their undefined home ranges would likely encompass the headwaters of the West Fork of the Bitterroot River, which drains into Painted Rocks Reservoir. In addition, none of these groups contained a radio-collared wolf during 2005, complicating documentation of wolf status in this area. The Painted Rocks pack was counted as a breeding pair for Montana in 2005.

### Suspected Border Packs

#### *Leadore (Grassy Top) (MT)*

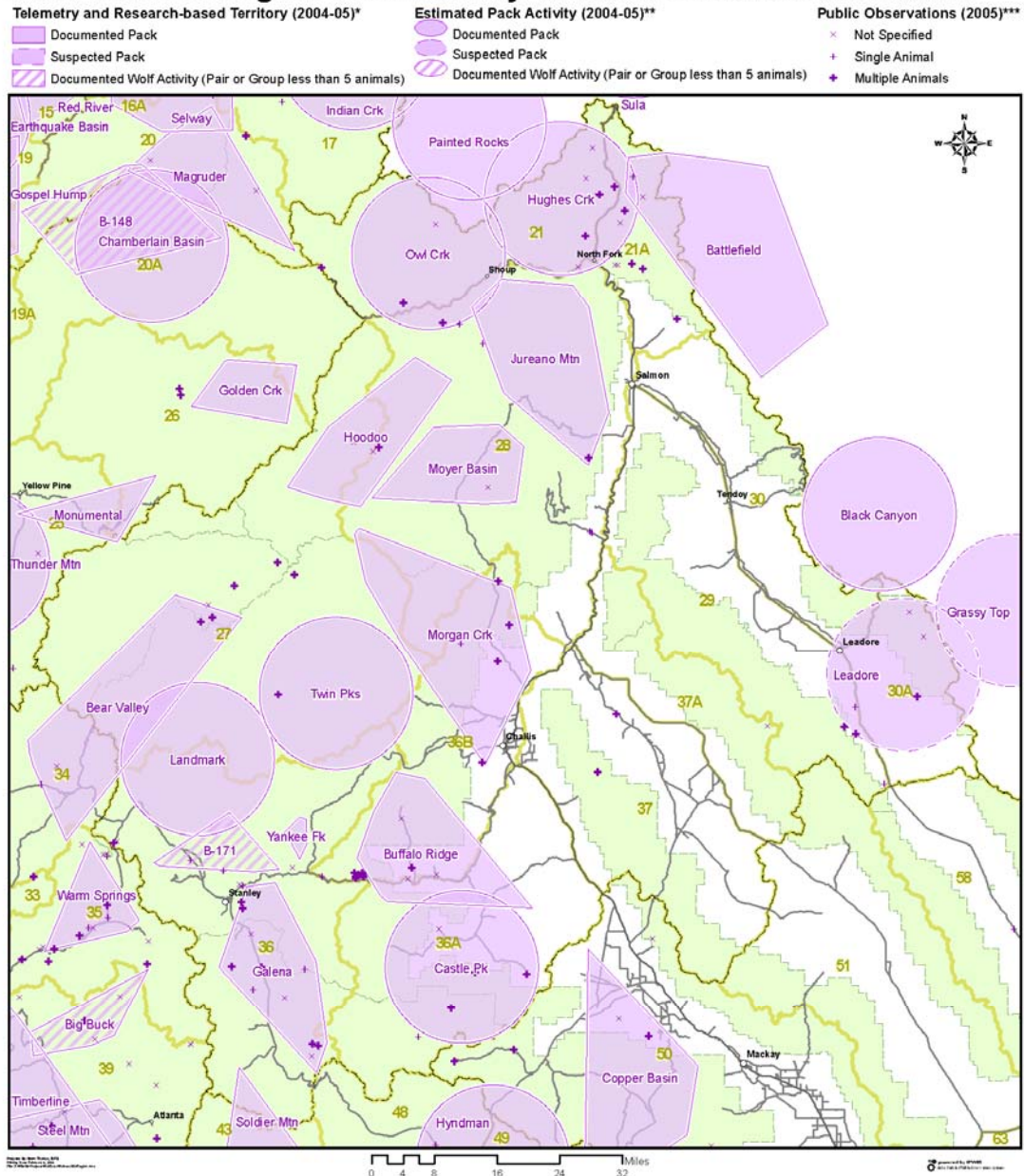
Wolf sightings have been reported in the vicinity of Leadore, Idaho, for several years, submitted by both the public as well as IDFG employees. Additionally, wolves have been reported across the divide in Montana, and there is some speculation that the observations on either side may be attributed to 1 pack that resides part-time in both states. Further investigation is needed to determine the status of these wolves.

### Other Wolf Groups Monitored

#### *B171*

Having spent the first 2 years of life with her natal Galena pack, female B171 dispersed during early summer 2005. Monitoring flights indicated she was establishing a home range due north of her natal pack's territory. In late fall 2005, she was observed during an aerial monitoring flight traveling with another wolf. B171 and her companion were considered to be a potential mated pair and anticipated to produce pups in 2006.

# 2005 Salmon Region Wolf Activity Telemetry, Documented and Suspected Locations



\* 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 and the National Park Service. Pack territories are minimum convex polygons of telemetry locations and research observations for radio-collared wolves from 1/1/2004 - 12/31/2005 with outliers removed. Packs which no longer existed in 2005 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 1/1/2004 - 12/31/2005.

\*\*\* Public Observations from 1/1/2005 - 12/31/2005 collected on the Idaho Fish and Game website and reviewed by staff biologists.

Map Produced by Idaho Fish and Wildlife Information System, Idaho Fish and Game in cooperation with: The Nez Perce Tribe, U.S. Fish & Wildlife Service, USDA/APHIS Wildlife Services, Montana Fish, Wildlife & Parks, and the National Park Service

Figure 13. Wolf pack activity and observations in the Salmon Region, 2005.



Table 8. Estimated pack size, reproductive status, mortality, dispersal, monitoring status, and livestock depredation for documented and suspected wolf packs within Idaho Department of Fish and Game Salmon Region, 2005.

Wolf pack or group	Min. no. wolves observed <sup>a</sup>	Reproductive status			Documented & suspected mortalities				Monitoring status			Confirmed & probable wolf-caused livestock losses			
		Min. no. pups prod.	Reprod. packs	Breeding pairs <sup>b</sup>	Natural	Control <sup>c</sup>	Other human <sup>d</sup>	Unknown <sup>e</sup>	Known dispersal	Active radio collars	Number wolves captured <sup>f</sup>	Number wolves missing <sup>g</sup>	Cattle	Sheep	Dogs
Documented															
Battlefield (MT) <sup>h</sup>															
Bear Valley	8	3	yes	yes	0	0	0	0	0	1	0	0	0	0	0
Black Canyon (MT) <sup>h</sup>															
Buffalo Ridge	9	6	yes	yes	0	1	0	0	2	2	0	1	2	0	0
Castle Peak (E Pass)	?	?	?	?	0	0	1	0	0	0	0	0	0	25	1
Galena	11	3	yes	yes	0	0	0	0	1	3	2	0	2	7	0
Hoodoo	7	2	yes	yes	0	0	0	0	0	1	0	0	0	0	0
Hughes Creek	8	5	yes	yes	0	0	0	0	0	0	0	0	0	0	0
Jureano Mountain	11	3	yes	yes	0	0	0	0	0	3	0	0	0	0	0
Landmark	?	?	?	?	0	0	0	0	0	0	0	0	0	0	0
Morgan Creek	13	5	yes	yes	0	0	0	0	2	2	0	0	0	0	0
Moyer Basin	10	5	yes	yes	0	1	0	0	0	4	4	0	1	0	0
Owl Creek	9	?	?	?	0	0	0	0	0	0	0	0	0	0	0
Painted Rocks (MT) <sup>h</sup>															
Twin Peaks	?	?	?	?	0	0	0	0	0	0	0	0	0	0	0
Yankee Fork	8	2	yes	yes	0	0	0	0	0	1	1	0	0	0	0
Dispersers					0	0	2	0	0	1	0	0	0	0	0
Subtotal	94	34			0	2	3	0	5	18	7	1	5	32	1
Suspected															
Leadore (Grassy Top) (MT) <sup>h</sup>															
Other groups															
B171	2				0	0	0	0	0	1	0	0	0	0	0
Unknown					0	0	1	1	0	0	0	0	0	0	0
Subtotal	2				0	0	1	1	0	1	0	0	0	0	0
Regional total	96	34			0	2	4	1	5	19	7	1	5	32	1

<sup>a</sup> Number of wolves observed by wolf program personnel in 2005. Sum of this column does not equate to number of wolves estimated to be present in the population.

<sup>b</sup> Breeding pairs are the measure of Federal and State wolf recovery and management goals. A breeding pair is defined as "an adult male and an adult female wolf that have produced at least 2 pups that survive until December 31 of the year of their birth..."

<sup>c</sup> Includes agency lethal control and legal take by landowners.

<sup>d</sup> Includes all other human-related deaths.

<sup>e</sup> Does not include pups that disappeared before winter.

<sup>f</sup> Includes all wolves captured during 2005. Most, but not all, were radio-collared.

<sup>g</sup> Radio-collared wolves that became missing in 2005.

<sup>h</sup> Border pack officially tallied to (state); territory known or likely shared with Idaho. Data on these packs can be found in Rocky Mountain Wolf Recovery 2005 Interagency Annual Report.

## LITERATURE CITED

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\_\_\_\_\_, NEZ PERCE TRIBE, NATIONAL PARK SERVICE, MONTANA FISH WILDLIFE AND PARKS, IDAHO FISH AND GAME, AND USDA WILDLIFE SERVICES. 2006. Rocky Mountain Wolf Recovery 2005 Annual Report. USFWS, Ecological Services, 585 Shephard Way, Helena, Montana. 155 pp.

## APPENDIX A: POPULATION ESTIMATION TECHNIQUES USED TO DETERMINE WOLF POPULATION NUMBERS IN IDAHO

Since wolves were first reintroduced into Idaho, annual winter wolf population estimates have been calculated using the same technique. Following this technique, for any given year, the wolf population is estimated by starting with the previous end-of-year estimate, adding all documented reproduction and immigration, and subtracting all documented mortality and emigration for the current year. Mathematically this technique is represented as:

$$\text{Wolf Population Estimate} = \text{Last year's population estimate} + \text{documented pups produced} + \text{immigrants} - \text{documented mortalities} - \text{emigrants}$$

Using this technique, the 2005 wolf population estimate is 512 wolves:

$$(422) + (123) + (13) - (44) - (2) = 512 \text{ wolves}$$

This technique worked well for the first several years after wolves were reintroduced when the population was relatively small and most wolves were radio collared. As most, if not all, packs could be actively monitored using radiotelemetry, reproduction, mortality, and dispersal could be accurately assessed. For small recovering populations monitored using radiotelemetry, this technique is essentially a total count method.

Using the same population estimation technique from year to year is important to assess population trends across years. Idaho wolf population estimates have increased every year since wolves were first reintroduced in 1995. The 2005 estimate indicated a 21.6% population increase from the previous year ( $\lambda = 1.22$ ).

As the Idaho wolf population expanded, our confidence in this technique has waned because it became increasingly difficult to document all packs; a smaller proportion of the wolf population was radio collared increasing the difficulty for monitoring status of known packs; and reproduction, mortality, and dispersal became more difficult to assess. Static funding and personnel levels in the face of an expanding wolf population and workload added to the challenge of collecting sufficient data required by this technique to accurately estimate the growing number of wolves.

We have, for the past few years, explored additional methods of estimating the wolf population that are more appropriate given a much larger, fully recovered population and applicable for the types of data we are able to collect. Our efforts have recently focused on one of the most promising methods, which we anticipate to have peer reviewed and implemented by 2006.

## **APPENDIX B: 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) 634-3231  
Mail: P.O. Box 1922  
McCall, ID 83638-1922  
Email: [cmack@nezperce.org](mailto:cmack@nezperce.org)  
[jholyan@nezperce.org](mailto: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](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

Citizens Against Poaching (24hr) 1-800-632-5999  
or any IDFG Office