Guidelines for Response to Gray Wolf Reports in Colorado

Colorado Division of Wildlife
January 2005

Purpose: It is likely that gray wolves, particularly single, young adults, may wander from wolf populations either north or south of Colorado into our State. The primary purposes of this document are to: 1) provide guidance to DOW employees for responding to reports of gray wolves in Colorado (e.g., current contact points, addresses and telephone numbers), and 2) provide brief information on gray wolf biology and current state policies regarding gray wolves to assist DOW employees responding to public inquiries.

RESPONSE GUIDANCE SECTION

FWS Policies toward Dispersing Wolves

As a result of different recovery areas, objectives, and strategies for Rocky Mountain (north of Colorado) and Mexican (south of Colorado) wolves, the U.S. Fish and Wildlife Service (FWS) will apply different approaches to dealing with wolves that disperse from those areas. Recently adopted rules have created two sets of Endangered Species Act regulations relating to wolves in Colorado. The April 1 rule designated three "Distinct Population Segments" (DPS) for wolves in the conterminous 48 states. Colorado lies within two of these DPSs; the area north of I-70 is part of the Western DPS and the area south of I-70 is part of the Southwestern DPS (see Background section and Table 1 for more information). Wolves north of I-70 are listed as Threatened and are managed under a special (more liberal) rule. Wolves south of I-70 are listed as Endangered and have the complete, more restrictive protection of the ESA. While wolves that move into Colorado in the future could conceivably come from either the north or the south, the source of the wolf is irrelevant. The geographic location of the animal determines which regulations apply.

Current FWS policy for the Mexican wolf is to trap and move wayward animals back to the experimental area, regardless of the wolf's actions. The FWS acknowledges that this is often not practical or cost effective. But since each individual wolf is critical to the Mexican wolf restoration effort, current policy means capture will be attempted. The question of whether attempting to capture a lone wolf is practical arises because solitary wolves may travel large distances in a single day. Unless there is reason to believe the wolf will remain close to where it was originally spotted, capture efforts may prove futile. Individual wolves from the northern population are not vital to recovery, therefore the FWS will probably not try to capture wolves dispersing from these populations. See Table 1 for a description of the legal constraints on the taking of wolves in the two DPSs that cover Colorado.

Wolf Observation Action: DOW personnel receive calls throughout the year regarding potential sightings of wolves in Colorado. In the past, it was relatively easier than it will be from now on to distinguish between a wolf of wild origin and a wolf (or wolf-dog hybrid) of domestic origin. Due to topography, vegetation, and distances from existing populations, certain areas of Colorado have a greater chance of wild wolf occurrence. In southern Colorado these include areas west of Highway 285 and south of Highway 50, with portions of Montezuma, La Plata, Archuleta, Conejos, Dolores, San Juan, Hinsdale, Mineral, or Rio Grande Counties most probable. In northern Colorado these include areas north of I-70 to Highway 131 to Highway 40 and west of Highway 125, with portions of Moffat, Routt, Rio Blanco, and Jackson Counties most probable. However, a wild wolf from Yellowstone

National Park was killed on Interstate 70 approximately 5 miles west of Idaho Springs (Clear Creek County) in June of 2004. This is the only confirmed wild wolf in Colorado since 1935. Given distances solitary wolves may travel, wild wolves could be found in any part of western Colorado, but the foregoing locations are most likely.

Directly following the contact information portion of this document is a two-page report form. The form requests certain standard information and also encourages DOW personnel to seek answers to a series of questions whenever a wolf sighting is reported. Copies of the completed report should be provided to Gary Skiba (Wildlife Conservation Section), Jerry Apker, and Lyn Stevens (Terrestrial Section). For wolf sightings, documentation of behavior is as important as physical characteristics. DOW personnel should also record any known domestic sources of wolves or wolf-dog hybrids in the vicinity.

The following actions should be taken if a reported wolf appears to be a wild wolf.

No conflict: If a wolf is observed in any part of the State, and it is a simple observation (i.e., no evidence that the wolf has been involved in depredation), then DOW field personnel should notify FWS personnel, the appropriate Area Manager and the Regional Manager. The Area Manager is responsible for follow-up actions involving regional staff and appropriate notifications to USFS, BLM, or Tribal authorities and courtesy notification to APHIS, Wildlife Services. The Regional Manager should notify the Terrestrial Section and Wildlife Conservation Section leaders, and shall also coordinate follow-up actions by Headquarters staff. Follow-up action by field personnel shall be simple monitoring, if possible, the movements of the animal. DOW personnel should increase dissemination of information about wolf biology, identification, behavior, and State and Federal response policies.

Conflict: If there is evidence that a wolf has been involved in depredation of livestock or pets, DOW personnel should contact FWS personnel to notify them of the incident. DOW field personnel will take necessary steps to preserve evidence of depredation. APHIS, Wildlife Services staff shall be contacted and shall determine if a wolf caused the death or injury to livestock or pets. DOW field personnel should also notify the appropriate Area Manager and the Regional Manager. The Area Manager is responsible for follow-up actions involving regional staff and appropriate notifications to Colorado Department of Agriculture, USFS, BLM, or Tribal authorities. The Regional Manager will notify the Terrestrial Section and Wildlife Conservation Section leaders, and shall also coordinate follow up actions by Headquarters staff. Field personnel will follow up by to assisting the owner in filing for compensation from the Defenders of Wildlife's wolf compensation fund, if the owner desires. DOW personnel should increase dissemination of information about wolf biology, identification, behavior, and State and Federal response policies. DOW will coordinate information released to the media with FWS.

Killing of wolves. The reported killing of a wolf will be investigated by a Colorado Wildlife Officer. The officer will notify their AWM who will pass the information up the chain of command to the Director. The Area supervisor or the Regional Manager will notify the USFWS of the reported killing. The Colorado Wildlife Officer will conduct a complete investigation and will write a report concerning the incident. In circumstances that involve the killing of a wolf depredating livestock, the officer will follow CDOW guidance in relation to depredating wolves and will receive

the approval of the AWM and RM before any action other than the investigation of the circumstances is taken. In the circumstance of a wolf killed that is not associated with the depredation of livestock, the officer will assess the intent, negligence, carelessness, or other aggravating/mitigating circumstances involved in the incident. A knowing, intentional act of poaching a wolf, or where negligence or carelessness leads to the killing of a wolf will be handled as an unlawful take or possession of wildlife. The CDOW will cooperate with the USFWS in any investigation they may pursue. The CDOW and the USFWS may agree to a joint decision relative to criminal prosecution concerning the poaching of a wolf, however if agreement cannot be reached, the USFWS may pursue action independent of the CDOW.

Identification

Unfortunately, there are no iron-clad identifying characteristics with which one can make an absolute visual determination. Some dog breeds and wolf-dog hybrids can be very similar in appearance to wild wolves and visual determination may be virtually impossible. Generally, however, gray wolves may be distinguished from dogs and wolf-dogs by their longer legs, larger feet, wider head and snout, and straight tail. Depending upon the observer and observation conditions misidentification is possible and may even be common. Relatively few people in Colorado have extensive experience closely observing wolves. In assessing a reported sighting, ask questions about coloration, length of legs relative to body length and chest depth, size and shape of the head, and position of the tail. The report form (pages 5 and 6 of this document) includes factors that are helpful in assessing the validity of a wolf sighting. (The form should be used to report sightings, and it will help DOW employees ask the right questions of the reporting party). If possible make track measurements. The track of an adult Rocky Mountain gray wolf will be up to 4.5" wide. The track of an adult Mexican wolf will be up to 3.5" wide. Both tracks will otherwise be dog like in appearance.

Dogs and wolf-dogs display some behavioral differences from gray wolves, if observations can be made over enough time. Tail position can be a helpful identification cue. Feral or semi-feral dogs will often hold the tail down, except in greeting. A solitary wolf may have its tail straight out or up, although this is clearly a very broad generalization. Dogs or wolf-dogs often have curled tails, wolves do not. Some breeds of dogs and some wolf-dogs will have "floppy" ears, whereas wolves always have erect ears. Finally, if a wolf-like animal is found consistently in association with homes, human activity, or human structures it is almost assuredly not a gray wolf. Genetic testing can make better identification. However, because wolves and dogs are so closely related, and due to the limited genetic stock for Mexican wolf reintroduction, and finally simply from lack of detailed genetic research on wolves, there are limitations to the degree of certainty through genetic testing as well.

Most Rocky Mountain gray wolves (70% now and more in the future) will not have collars, tags or wildlife management markers. Most Mexican wolves still do have radio collars, but future wild offspring will not.

Contact Personnel

USFWS Mexican Wolf

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John Oakleaf
Mexican Wolf Field Office
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USFWS Rocky Mountain Gray Wolf

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USFWS Law Enforcement - Roger Gephart
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Lakewood, Colorado 80215
303-274-3560

APHIS Wildlife Services - Mike Yeary
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Tucson, Arizona 85701
520-623-9653 x 1 tel
cmiller@defenders.org email

COLORADO DIVISION OF WILDLIFE – WOLF REPORT

OBSERVER:

ADDRESS:

PHONE: home: work: cell:

EMAIL:

DATE OF OBSERVATION: TIME OF DAY OF OBSERVATION:

LENGTH (Minutes/Seconds) OF OBSERVATION:

DISTANCE FROM ANIMAL(S):

CONDITIONS:

WERE PHOTOGRAPHS OR VIDEO TAKEN: (copy provided) (original provided)

NUMBER OF OBSERVERS:

OTHER OBSERVER NAMES, ADDRESSES, PHONE:

GENERAL LOCATION: (EXAMPLE: "5 miles east of Kremmling, 2 miles up the Troublesome Creek Road"):

SPECIFIC LOCATION (T, R, S or UTM coordinates):

TYPE OF HABITAT:

PROXIMITY TO DOMESTIC WOLF OR WOLF-DOG HYBRIDS:

NUMBER OF ANIMALS OBSERVED:

PHYSICAL CHARACTERISTICS:

Color:

Size: Body Length: (nose to tip of tail)

Tail Length: Tail Position: (straight out) (down) (curled & above back) (other – describe)

Leg Length: (longer than body length) (same) (shorter) (other – describe)

Ear Length: Ear Position: (erect) (down) (flopped over) (other – describe)

Size of Head: (as broad as chest) (broader than chest) (narrower than chest) (other – describe)

Tracks Observed/Describe:

Collar Visible/Describe: (color, color patterns, numbers)

Other Comments on physical characteristics:

DESCRIPTION OF ANIMAL BEHAVIOR AND OBSERVATION DESCRIPTION: (general comments)

Behavior Questions:

Did you try to approach the animal? What did the animal do when approached?

Did you make any noise like whistling, calling, etc. If so, what did the animal do?

Have you seen this animal or one similar to it in the area before? How often?

Are there houses, buildings, livestock, farm or ranch equipment or facilities around?

Did you have a dog around, or did a dog interact with the animal? What happened?

OBSERVER EXPERIENCE WITH WILD WOLVES:

REPORT TAKEN BY: (name, title, phone)

DATE OF REPORT:

COPIES TO: Species Conservation Section (Gary Skiba)
Terrestrial Section – Fort Collins (Lyn Stevens)
Terrestrial Section, Carnivore Management (Jerry Apker)

If this is a report of a dead wolf, or captured wolf, or is of high credibility - Immediately contact appropriate USFWS personnel and provide them a copy of the report.

BACKGROUND INFORMATION

Gray Wolf Status

In the western United States all wild wolves are gray wolves. Wolves reintroduced to the Yellowstone area are one subspecies and those reintroduced into southern New Mexico and Arizona are another. For clarity, this document calls the southern wolf the Mexican wolf and those in the north the Rocky Mountain gray wolf. Wolves reintroduced to both areas are designated as experimental, nonessential populations, and there is more flexibility in dealing with individual animals within those experimental areas. While wolves in Colorado in the near future will likely be individuals dispersing from one or the other of the nonessential experimental populations, they will not be covered by the rules for those populations (see below).

On April 1, 2003, the USFWS finalized new rules on the status of the Gray Wolf under the Endangered Species Act. The new rule created three Distinct Population Segments, and retained the existing Nonessential/Experimental Population designations in certain areas. The rulemaking also created a new Section 4(d) rule for the Western DPS. It's helpful to think of Distinct Population Segments as similar to individual species listed under the Endangered Species Act. The Western DPS will have its own recovery goals and regulations, separate from the Southwestern DPS. These will both be different from the Eastern DPS (the Eastern DPS has no effect on Colorado). The end result for wolves in Colorado is as follows:

- Colorado lies within two DPS areas
  - Colorado north of I-70 is part of the Western DPS, where wolves are considered Threatened and governed by the 4(d) rule
  - Colorado south of I-70 is part of the Southwestern DPS, where wolves are considered Endangered and are given full protection of the Endangered Species Act.
- Special rules (Section 10(j)) continue to apply to Nonessential/Experimental Populations where they were designated. These areas are not in Colorado and therefore these rules do not apply to Colorado.

See Table 1 for a summary of the regulations that apply to Colorado.

Estimates of wolf numbers at the end of 2003 were 368 wolves in the Central Idaho Recovery Area, 301 in the Greater Yellowstone Recovery Area, and 92 in the Northwest Montana Recovery Area for a total of 761. By state boundaries, there were an estimated 345 wolves in the state of Idaho, 234 in Wyoming, and 182 in Montana. Of approximately 94 groups of two or more wolves, 51 met the definition of "breeding pair," an adult male and female raising two or more pups until December 31. This made 2003 the fourth year in which 30 or more breeding pairs were documented within the three-state area. Recovery criteria have been met for removing Northern Rockies wolves from the Endangered Species List. Figure 1 displays known pack locations as of the end of 2003. The 2004 annual report is expected to be available in March of 2005. See http://westerngraywolf.fws.gov/index.htm for updated reports and maps of pack locations.

Mexican wolf status is more tenuous, with an estimated 56-60 wolves and 10 breeding pairs in the wild as of January 2005. (see http://ifw2es.fws.gov/mexicanwolf/ for reports and more information)

The majority of the recovery effort for the Rocky Mountain gray wolf and the Mexican wolf occurs in areas roughly 150 to 200 air miles north and south from Colorado borders, respectively. Primary recovery effort for the Mexican wolf is the Blue Range Wolf Recovery Area, which straddles the New Mexico-Arizona border. In relation to Colorado the experimental population area boundary for the Rocky Mountain gray wolf is nearest since it is the Wyoming-Colorado state line. For the Mexican wolf, the experimental population area is roughly 100 air miles from Colorado; the northern boundary of the experimental area is Interstate 40. As of January 2005, the nearest Mexican wolf pack to Colorado is about 220 miles distant, while the nearest pack in Wyoming is about 150 miles.

While a great deal of media attention is given to wolves in the Yellowstone area, this is one part of a larger effort described in the Rocky Mountain Wolf Recovery Plan. The Rocky Mountain Wolf Recovery Plan focuses wolf recovery efforts on large solid blocks of public land from western Wyoming, Idaho and Montana to the Canadian border. The plan lists recovery criteria of 30 breeding pairs of wolves for 3 successive years and a predicted population size of at least 300 adult wolves in Montana, Idaho, and Wyoming. The main recovery areas are northwestern Montana, central Idaho, and Yellowstone National Park area. A step down plan provides for reclassification of the status of the Rocky Mountain gray wolf – Endangered to Threatened to full delisting – if certain interim benchmarks are achieved. Recovery goals have been met and the USFWS could have moved directly to delisting. However, the current approach is to move in a step-wise fashion. The April 2003 rulemaking was the first step, downlisting the Rocky Mountain gray wolf from Endangered to Threatened. Prior to delisting the wolf in the Western DPS, Wyoming, Idaho and Montana will need to have conservation management plans for the Rocky Mountain gray wolf to assure its continued survival and status. Idaho and Montana have developed acceptable plans. Wyoming's plan was rejected by the USFWS, and litigation brought by the state is underway.

In the New Mexico-Arizona experimental population area, since there were no Mexican wolves in the wild for reintroduction, captive-bred wolves have been the source for releases. It has been presumed that captive animals released to the wild would experience a longer adjustment period to adapt to needed survival strategies, and in most cases this presumption has been realized. There are also fewer clearly defined recovery objectives for the Mexican wolf, but a new recovery plan is under development and is expected to be completed sometime in 2006. The new plan will include specific quantifiable recovery criteria which will allow delisting when reached.

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Colorado Gray Wolf Statutes & Policies

In Colorado the gray wolf is not distinguished between subspecies and is listed as a state endangered species (WCR #1002-A-3). As such it is illegal to possess, take, or harass a gray wolf in Colorado [WCR #1000-A and 33-6-109(1)]. Furthermore, CRS 33-6-109(3)(a) sets the penalty for hunting, taking, or possession of an endangered species as a fine not less than $2,000 and not more than $100,000, and/or county jail imprisonment of not more than 1 year, and assessment of 20 points against wildlife license privileges. This is also a strict liability statute, which means intent does not matter.

As with most laws the foregoing statutes allow for exceptions. The exceptions on take are found in 33-2-106(3) & (4); most pertinent is paragraph (4). It says that if good cause is shown that it is necessary to resolve damage to property or protect human health an endangered species (a wolf) can be killed by permit from DOW. However, the Commission must have established in Regulation the conditions under which such removal, capture, or destruction may be authorized. At its September 2004

meeting, the Colorado Wildlife Commission adopted regulations that align state regulations with the federal 4(d) rule (see Table 1) in the area north of I-70. This regulatory change allows wolves to be taken under both state and federal law in the specified circumstances, and these regulations function as a blanket permit which allows take without further action by CDOW. Note that ss long as wolves are listed under the ESA by the federal government, federal law will supersede state law.

There is an existing law that authorizes payment of a $2 bounty on wolves (35-40-107 & 108), tacitly encouraging the take of wolves. The Colorado Department of Agriculture has the primary duty to manage depredating animals (35-40-100.2 through 35-40-115). The law intentionally focuses DOA responsibilities on individual animals that cause depredation and the law also specifically names wolves. Key aspects of these laws are that they give DOA lead responsibility in resolving depredation situations but not the responsibility to manage wildlife in Colorado. While DOA has authority to manage depredating wolves, it may do so only after the Agriculture Commissioner has developed rules (in consultation with the Wildlife Commission) under which control actions would take place. As long as wolves are Federally listed as threatened or endangered, their take under DOA jurisdiction, similarly to take under DOW jurisdiction, would require authorization by FWS.

Article 2 of Title 33 CRS is the section dealing with state listed threatened or endangered species. Article 2 does not specifically state that there is a requirement to develop management plans for any state listed threatened or endangered species. However, descriptions of the processes and actions contained within the Article clearly imply that where resources are going to be spent on species recovery actions; that they should be predicated on plans developed using good science and in consideration of the potential for such species recovery to impact private property. DOW is required to get legislative authorization to do any reintroduction of wolves (33-2-105.5 & 105.7) and the reporting requirements are extensive. Also, the Colorado Wildlife Commission, in a September 1989 resolution is on record opposing reintroduction of the gray wolf to Colorado.

Since individual wolves will eventually be dispersing into and through Colorado, the Colorado Division of Wildlife is developing a plan to manage the species in Colorado as a means of reducing public uncertainty. This plan is taking into account the wide range of public sentiment regarding wolves and will address the potential effects of wolf depredation on Colorado's important agricultural industry.

However, CDOW does not intend to develop a recovery plan for wolves. "Recovery" implies that specific actions would be taken to increase the number of wolves in the state, and the Division of Wildlife has no plans to pursue such actions.

Gray Wolf Biology & Behavior

Gray wolves are the largest wild members of the dog family. Male adult Rocky Mountain gray wolves average about 100 lb., females slightly less. Mexican wolves are a bit smaller with adult males weighing at most 90 lb., females again slightly less. Rocky Mountain gray wolves are often a grizzled gray color, but can vary from white to black. Mexican wolves have less variation in color, tending to be more tawny, and no Mexican wolf to date has shown solid white or black coloration.

Rocky Mountain Gray Wolf Images

Images Courtesy USFWS and NPS

Mexican Wolf Images

Images Courtesy of US Fish and Wildlife Service Image Gallery

Elk and deer are the main prey selected by both Mexican and Rocky Mountain gray wolves, but they also prey on moose, bighorn sheep, snowshoe hare, beaver, and less commonly small mammals, birds, even large invertebrates (grasshoppers, etc.). Wolves also kill coyotes, and there are indications that wolf predation on coyote in the Yellowstone area has changed coyote predation and social behavior.

Gray wolves in the northern Rocky Mountains since 1987 have depredated on horses, cattle, sheep, and dogs. Management of these depredation events appears to indicate that rapid control of the individual depredating wolf may help prevent spread of learned depredation behavior. Depredation conflicts with sheep are more common than with other domestic stock.

The basic social unit in gray wolf populations is the pack, usually 2 to 10 individuals with strong bonds to one another. Packs are typically family groups of offspring from the dominant (alpha) male and female and occasionally an unrelated wolf. Wolf packs tend to range in size in relation to their primary

prey. The larger the primary prey, the larger the size of the pack. Packs occupy, and defend from other packs and individual wolves, territories that range in size from about 200 to 400 square miles. Recent information from reintroduced Mexican wolves has shown territory size for some Mexican wolf packs to be as small as 50 square miles. Territory size varies over time and is influenced by prey abundance and movements, presence of other wolf packs, terrain, weather, and human activities.

Breeding usually occurs only between the alpha male and female, and though courtship behavior may occur throughout the year, actual breeding takes place around February. Pregnant females establish den sites that are used repeatedly and there may be several dens in a pack's territory which may be used in different years or for different purposes during the breeding/young rearing cycle. Pups are born in April, with litter sizes averaging around 5 – 7. When pups are 6 – 10 weeks old the pack will move from the birth den to a series of rendezvous sites as pup's age. Rendezvous sites are usually 1 – 4 miles from previous sites. By about October, pups are mature enough to travel with adults and the alpha male begins leading the pack along established routes such as game trails, waterways, roads – hunting for their primary prey.

Dispersal from packs occurs when young wolves, often yearlings, disassociate from their family pack and either move into an alpha role in another pack or become lone wolves. Dispersal is a key process in wolf re-colonization. It leads to new pack formation, more breeding pairs, and wider distribution of wolves. Mortality rates for dispersing wolves are high compared to wolves in packs. There are several types of dispersal. The type most applicable to Colorado is long-distance dispersal wherein a lone wolf may travel in a fairly straight path or in a nomadic – almost random pattern. Although movements are usually shorter (100 mile distances are common), dispersing wolves may travel in excess of 500 miles, may range over an area of more than 1,000 square miles, and may travel large distances in a day. No matter what type of dispersal occurs, the dispersing wolf is usually seeking other wolves. As a consequence, most wolf dispersal is in the direction of other wolves.

Wolves in western States appear to be behaviorally vulnerable to control actions. As compared to bears, puma, or coyote, wolves were driven to extinction in much of the United States because they are relatively easy to kill. Biologists and wildlife managers with much experience with wolves describe them as sometimes having a bored indifference to human presence or being cautiously inquisitive. Particularly with lone wolves, descriptions of behavior as follows are not uncommon: "When I first spotted the wolf it was standing up with its tail straight out, about 150 yards away. I started walking toward it and it just watched me until I was about 75 yards away. It then loped off to about 200 yards, stopped and watched me. I stopped and watched it. After about 10 minutes it sat, kept watching me, but often looked around and did not appear to even be looking at me. I started toward it again and when I was within about 100 yards it got up, stretched and loped away."

Gray Wolf-Human Conflicts, Depredation, and Predation

Human Conflicts: No wolf-caused human fatality has been documented in North America. All cases in which a human was injured occurred where wolves have shared the landscape with people for a long time. Even though wolves generally fear humans, there are instances where individual wolves lost their wariness of people. These occur mostly in park or preserve settings, where wolves have full protection and are exposed to large numbers of people. They also involved individual animals that were

frequenting camping or picnic grounds and appeared to gradually grow ever more bold around people at very close range. In stark contrast to many case histories of puma-human incidents, wolf-human encounters do not appear to be precipitated because wolves have perceived humans as prey. Rather, loss of their natural fear/wariness of humans and/or food habituation appears to be the common theme in the few cases where wolves have injured humans. Depredation of pets (dogs) is the most common non-agriculture related human conflict with wolves.

Despite their wariness of people, wolves will still use natural habitats in close proximity to humans. This is particularly true where people have built homes in thick, forested areas. In Montana, for example, members of the Murphy Lake and Nine-Mile packs are occasionally seen within 100 yards of homes. And while these packs are clearly accustomed to the presence of people and human activity, they have shared the landscape with people without significant conflict for more than 10 years.

Despite the extremely low risk of injury to humans by wolves and the low risk of depredation on someone's pet, it is important that DOW employees not discount any person's fear of wolves. DOW staff should provide factual information about the potential for injury or pet depredation. Information DOW has on hand regarding personal safety and pet safety precautions in relation to black bear and puma is also applicable with wolves. Providing these types of information in an empathetic manner contributes to maintaining public confidence in DOW management of wildlife.

Depredation: From 1987 to 2003, wolves accounted for the known loss of 301 cattle, 804 sheep, 1 horse, and 63 dogs in Idaho, Montana, and Wyoming. Additional livestock losses may have been due to wolves but were not confirmed due to conflicting evidence or lack of evidence. In Idaho, 1995 – 2001, about 10% of all suspected wolf depredations on sheep were not confirmed; for cattle about 30% of all suspected wolf depredations were not confirmed. Confirming cause of death by wildlife always presents challenges and this may be more acute with wolves since total carcass consumption by wolves (especially packs) is more likely than for other predators.

It is not necessarily a foregone conclusion that wolves will automatically depredate on livestock, since there is now ample evidence of wolves living in close proximity to livestock operations and showing little inclination to prey on domestic stock. Generally, wolf packs that regularly encounter livestock, particularly sheep, will depredate sporadically. There is also evidence that the presence of exposed carrion (dead animal carcasses) near livestock can increase the likelihood of wolf depredation. Depredation on livestock by lone wolves is more difficult to assess. However, one can surmise that lone wolves will be less efficient at preying on large wild animals. If presented with a chance to prey on domestic livestock, in particular sheep, being an opportunistic predator, it would seem that the chances are good that a lone wolf would do so. The abundance of natural prey, relative vulnerability of livestock, and nutritional demands all appear to affect how often wolves may attempt depredation.

Defenders of Wildlife, a non-profit wildlife advocacy organization, maintains a wolf compensation fund to compensate producers for losses from wolf depredation. From August of 1987 through December of 2004 this fund has paid $472,772 to ranchers in the northern Rocky Mountain region and the New Mexico-Arizona area (Figure 3: locations of wolf compensation payments). Payments are mostly for confirmed losses, but include discounted payments for "probable" depredations, veterinary bills for injured livestock, loss of weight gain, purchased feed, leased supplemental pasture, purchase of guard animals, fencing, and cost share on some changes in animal husbandry practices. Compensation

programs do not solve all concerns about wolves, but do help increase tolerance for wolves. Colorado producers would be eligible for payments under this program. Defenders of Wildlife have two related programs that are more proactive; a market incentive program to help market beef to upscale grocers or restaurants, and a cost-share program for husbandry practices for improved compatibility with large carnivores. Both programs are predicated on producers taking positive steps for wolf conservation, non-lethal control actions whenever possible, and changes in livestock management that benefit wolves.

Predation: Elk is the primary prey (89% in Yellowstone) selected by reintroduced Rocky Mountain gray wolves and Mexican wolves. Wolves that have naturally colonized northwestern Montana appear to select deer (63%) as prey more than elk (30%). Wolf prey selection by packs of wolves versus selection by a lone wolf is likely to be different. Evidence from wolf pack predation indicates that wolves select individuals that appear more vulnerable; often young, very old, injured or diseased animals. Even in a pack setting, taking on an adult elk is a risky task, and wolf packs tend to select elk calves more frequently than their prevalence in the wild. Adaptive survival strategy would suggest that solitary wolves would not commonly attempt to take adult elk. Instead, their prey selection may focus more on smaller prey items – fawns or yearling deer. Regardless, it must be accepted that the wolf, in a pack or as a lone wolf, is a predator of deer and elk mainly.

Colorado has recently extensively debated the issue of predator-prey relationships in relation to various proposals to control coyotes, or increase harvest of puma. Recent experience with wolf restoration in the northern Rocky Mountains has not shown that wolves control prey populations. Predation can influence prey population dynamics, however. In combination with other factors (weather, habitat condition, human-caused mortality, disease, parasitism), predation can influence the rate at which population size changes. Wolf predation on white-tailed deer in Minnesota does not appear to impact them, except in certain localized areas. In Yellowstone wolf predation on elk is strongly influenced by winter severity. Wolf presence in Yellowstone has changed elk behavior, making them more cautious, inclined to stay in tighter, smaller groupings. An ecological outcome of predation is to yield stronger, healthier prey populations and while there is not yet scientific data to back it up, observations of scientists indicate that this is in fact the case in the Yellowstone area. Most Wolf Conservation Management Plans developed by States indicate that they will use adaptive management models, and that eventual reductions in wolf populations will be pursued if prey populations are significantly impacted by wolf predation alone, or in conjunction with other factors. In other words they are taking a wait and see approach. If wolves do show up in Colorado, we can expect the debate about whether or not they will control prey populations to rise again. The debate will hinge upon how society and individuals assess and tolerate wolf predation influences with prey population fluctuations. For the foreseeable future the issue is moot, since a single wolf will have no impact on wildlife populations.

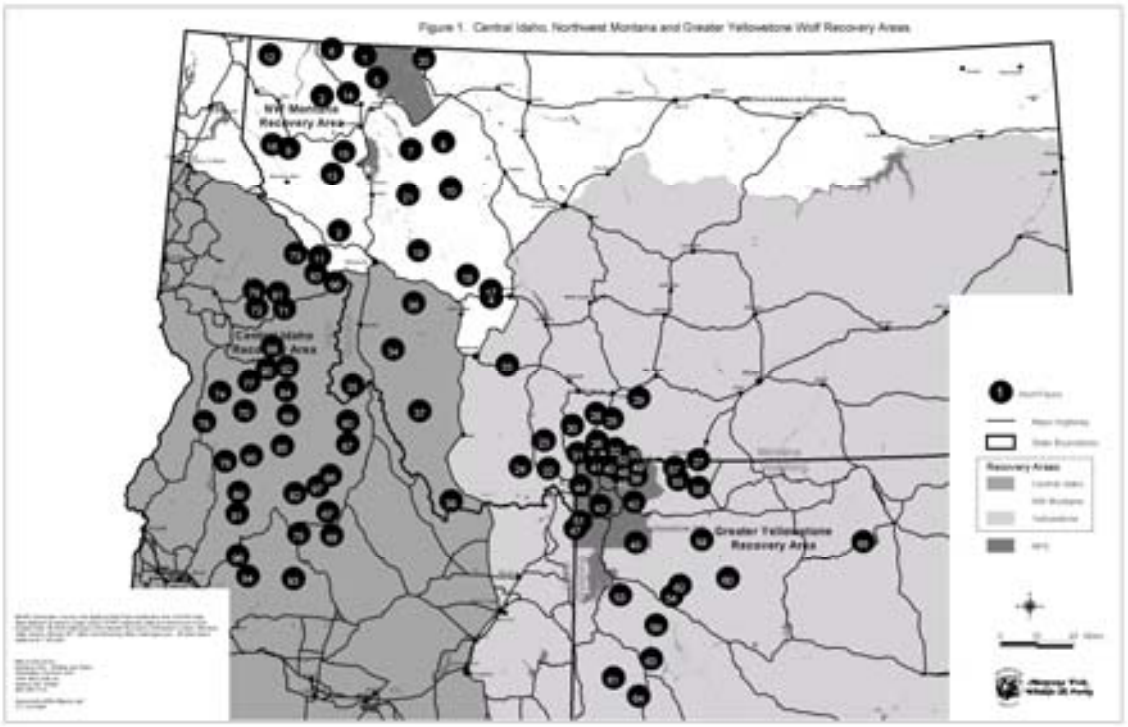
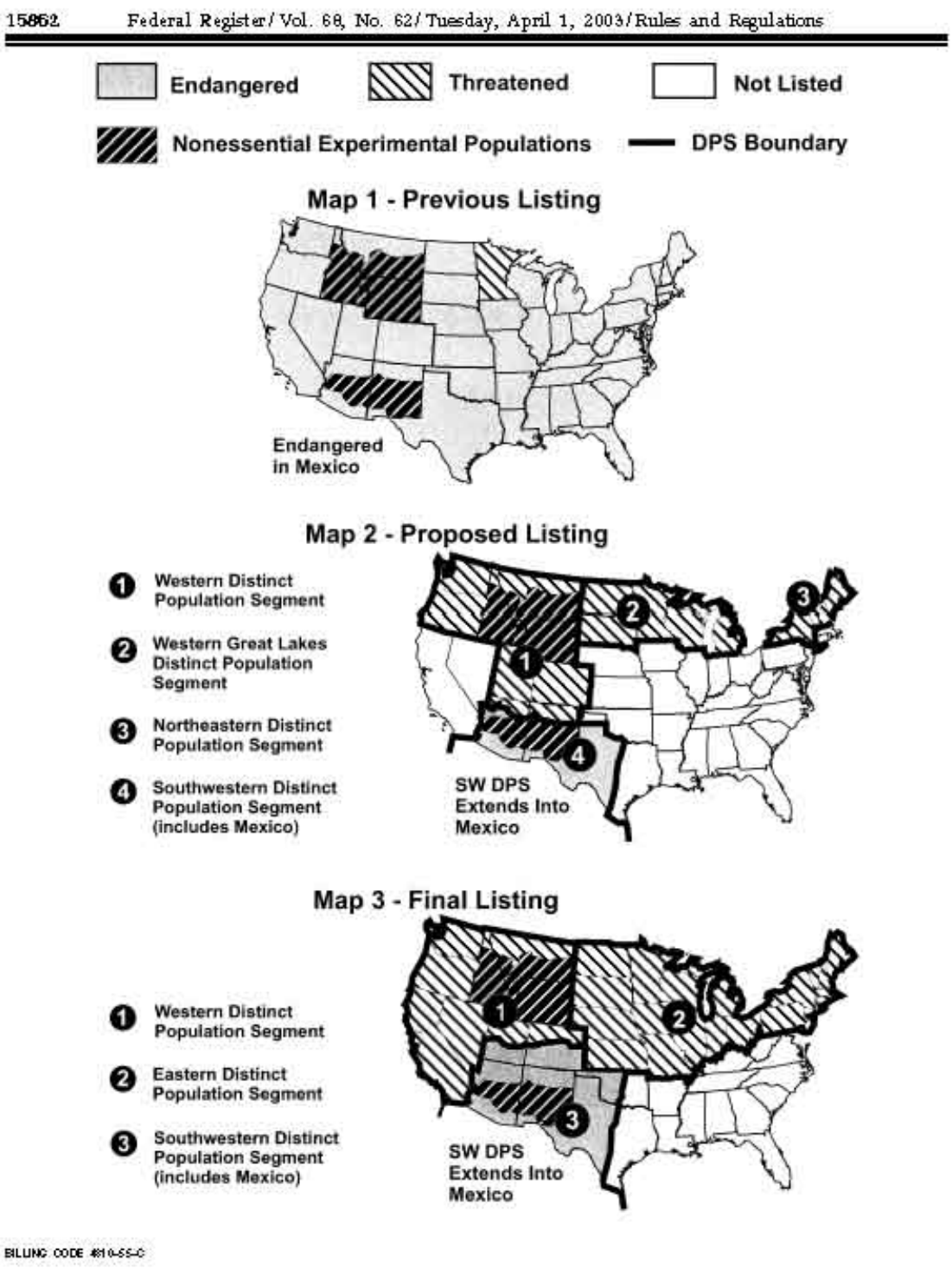


Figure 1. Northern Rocky Mountain Wolf Recovery Areas and Pack Locations – 2003

Figure 2. Previous Gray Wolf Listing Status, Proposed Listing, and Final Listing Status.



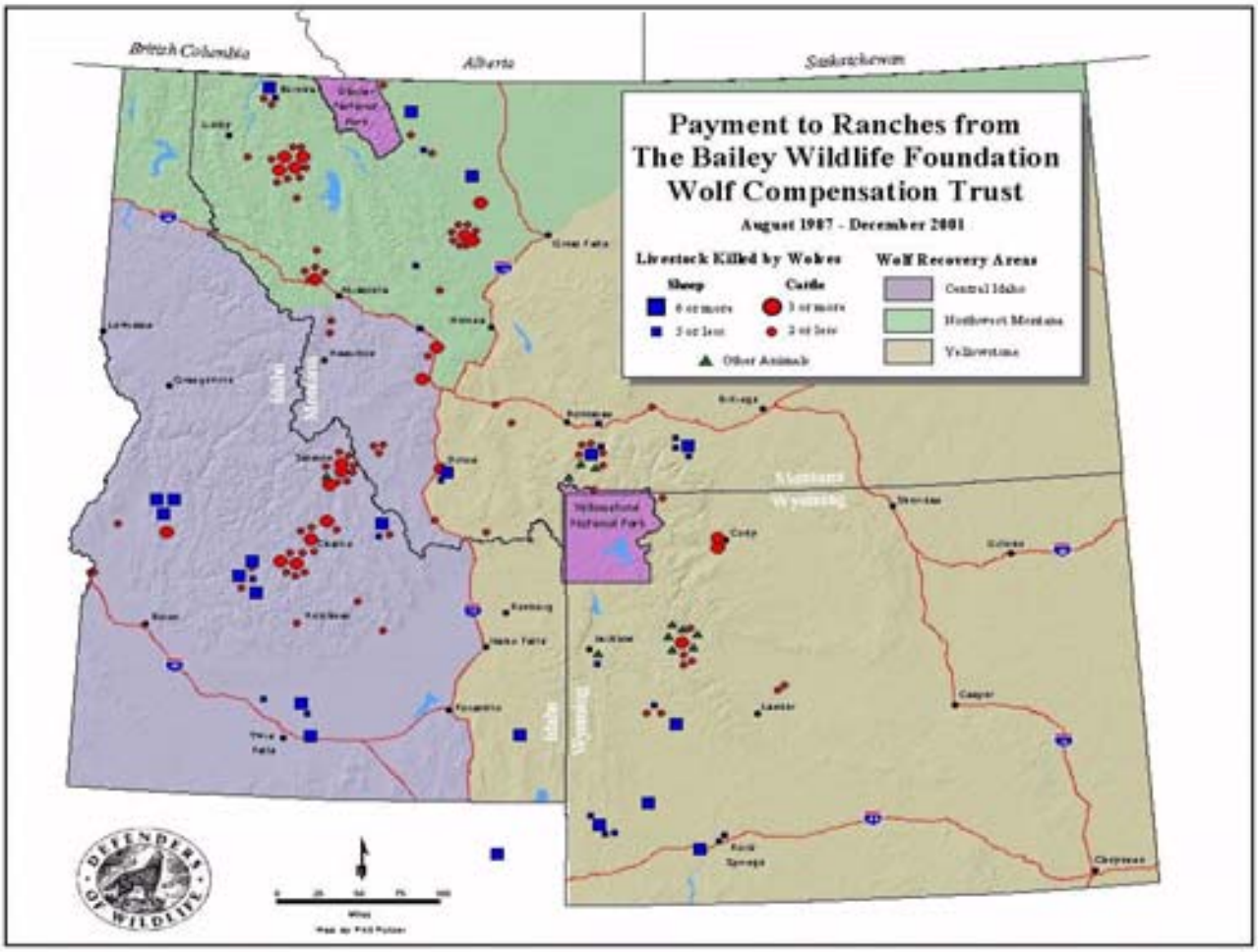


Figure 3: Defenders of Wildlife Wolf Compensation Trust Action locations.

Table 1. Comparison of Special 4(D) Rule for Western Distinct Population Segment and Normal ESA Protections

Provision:	New Section 4(d) Special Rule 50 CFR 17.40(n) [applies to Colorado north of I-70]:	Normal Protections for an Endangered Species [applies to Colorado south of I-70]:
Geographic Area ……..	The special rule will apply to any gray wolves that occur in those parts of the Western DPS (WDPS) that are outside of the Nonessential Experimental Population areas: Washington, Oregon, California, Nevada, northern Idaho, northern Montana, northern Utah, and northern Colorado	Throughout area in which it is listed as endangered.
Interagency Coordination (Sec. 7 consultation)	Federal Agency consultation with the Service on agency actions that may affect gray wolves is required, but will not result in land-use restrictions on Federal land unless needed to avoid take at active den sites between April 1 and June 30, except in National Parks or National Wildlife Refuges where other restrictions may be applied.	Federal agencies must consult with the U.S. Fish and Wildlife Service (Service) on all agency actions that may affect the gray wolf.
Take in self defense …….	Any person may take a wolf in self defense or in defense of others.	Any person may harass or take (kill or injure) a wolf in self defense or in defense of others. (50 CFR 17.21))
Protection of human life and safety.	The Service, other Federal land management agencies, and State or tribal conservation agencies or other agencies authorized by the Service, may promptly remove (that is, place in captivity or kill) any wolf determined by the Service or authorized agency to be a threat to human life or safety.	The Service, other Federal land management agency, or an agent of these, may take a wolf that is a demonstrable but non-immediate threat to human safety. (50 CFR 17.21(c)(3)(iv))
Opportunistic harassment …	Landowners and grazing allotment holders can opportunistically harass gray wolves in a noninjurious manner without a Service permit.	Harassment is included within the definition of "take" and is prohibited.
Intentional harassment Permits	The Service can issue a 90-day permit to private landowners or to livestock producers for use on public grazing allotments after verified persistent wolf activity on their private land or public grazing allotment; permit would allow intentional and potentially injurious, but nonlethal, harassment of wolves.	No specific provision for intentional harassment permits. However, see provision below for "Permits for recovery actions that include take of gray wolves."
Taking wolves "in the act" on PRIVATE land.	Livestock producers on their private land may take a gray wolf in the act of killing, wounding, or biting livestock, dogs, and livestock herding and guarding animals. Injured or dead livestock must be in evidence to verify the wolf attack.	No provision for such take.
Permits for taking persistent problem wolves "in the act" on PUBLIC land.	Livestock producers and permittees with current valid livestock grazing allotments on public land can get a 45-day permit from the Service or other agencies designated by the Service, to take gray wolves in the act of killing, wounding, or biting livestock. The Service must have verified previous attacks by wolves, and must have completed agency efforts to resolve the problem.	No provision for such take.

Table 1. Comparison of Special 4(D) Rule for Western Distinct Population Segment and Normal ESA Protections, cont'd

Provision:	New Section 4(d) Special Rule 50 CFR 17.40(n):	Normal Protections for an Endangered Species
Permits for additional taking by private citizens on their PRIVATE land for chronic wolf depredation.	If we confirm two separate depredation incidents on livestock or dogs on the subject private property or on an adjacent private property and we have confirmed that wolves are routinely present on the subject property and present a significant risk to livestock or dogs, a private landowner may receive a permit from the Service to take those wolves, under specified conditions.	No specific provision for such permits. However, see provision below for "Permits for recovery actions that include take of gray wolves."
Government take of PROBLEM WOLVES.	"Problem wolves" is defined as: wolves that (1) attack livestock or (2) twice in a calendar year attack domestic animals other than livestock. Criteria to determine when take will be initiated are as follows: (1) evidence of the attack, (2) reason to believe that additional attacks will occur, (3) no evidence of unusual wolf attractants, and (4) any previously specified animal husbandry practices have been implemented, if on public lands. No numerical threshold applies, so all control measures, including lethal control, can be used regardless of the number of breeding pairs in a State. No upper threshold of six breeding pairs (as found in nonessential experimental population regulations) limiting protection of females and their pups applies. Thus, females and their pups will be released if captured on public lands as defined above, prior to October 1, unless depredation continues. (Note: This is more restrictive than the experimental population regulations.) All problem wolves that attack domestic animals more than twice in a calendar year may be moved or removed from the wild, including females with pups.	No provision for such take.
Govt. translocation (capture and moving) of wolves to reduce impacts in wild ungulates.	States and tribes may capture and translocate wolves to other areas within the Western DPS, if the gray wolf predation is negatively impacting localized wild ungulate populations at an unacceptable level, as defined by the States and tribes. State/tribal wolf management plans must be approved by the Service before such movement of wolves may be conducted, and the Service must determine that such translocations will not inhibit wolf population growth toward recovery levels. Additionally: After 10 breeding pairs are established in the State, we, in cooperation with the States and tribes, may move wolves that we determine are impacting localized wild ungulate populations at unacceptable levels.	No provision for such relocation.
Incidental take …….	Any person may take a gray wolf if the take is incidental to an otherwise lawful activity, and is accidental, unavoidable, unintentional, and not resulting from negligent conduct lacking reasonable due care, and due care was exercised to avoid taking the wolf.	Can be authorized by permit after Service approval of a habitat conservation plan. (50 CFR 17.22).

Table 1. Comparison of Special 4(D) Rule for Western Distinct Population Segment and Normal ESA Protections cont'd

Provision:	New Section 4(d) Special Rule 50 CFR 17.40(n):	Normal Protections for an Endangered Species
Permits for recovery actions that include take of gray wolves.	Available for scientific purposes, enhancement of propagation or survival, zoological exhibition, educational purposes, or other purposes consistent with the Act (50 CFR 17.32).	Available for scientific purposes, and enhancement of propagation or survival (50 CFR 17.22).
Additional taking provisions for agency employees.	Any employee or agent of the Service or appropriate Federal, State, or tribal agency, who is designated in writing for such purposes by the Service, when acting in the course of official duties, may take a wolf from the wild, if such action is for: (A) Scientific purposes; (B) to avoid conflict with human activities; (C) to relocate a wolf within the NEP areas to improve its survival and recovery prospects; (D) to return wolves that have wandered outside of the NEP areas; (E) to aid or euthanize sick, injured, or orphaned wolves; (F) to salvage a dead specimen which may be used for scientific study; (G) to dispose of a dead specimen; (H) to prevent wolves with abnormal physical or behavioral characteristics, as determined by the Service, from passing on those traits to other wolves; or (I) to aid in law enforcement investigations involving wolves.	Any employee or agent of the Service, a Federal land management agency, or a State conservation agency, who is designated in writing for such purposes, when acting in the course of official duties, may take a wolf from the wild if such action is to: (1) Aid a sick, injured, or orphaned specimen; (2) dispose of a dead specimen, or (3) salvage a dead specimen which may be useful for scientific study (50 CFR 17.21 (c) (3)).
Land-use restrictions on Federal lands.	Land-use restrictions may be employed for wolf recovery purposes on National Parks and National Wildlife Refuges. Between April 1 and June 30 land-use restrictions may be employed to prevent take of wolves at active den sites on Federal lands.	Various land-use restrictions may be employed on Federal lands if the Service believes they are necessary to recovery the species and to minimize take of wolves. Land-use restrictions may be employed on private land if necessary to minimize take of wolves.