

mexwolfdca@fws.gov

copy via USPO to: John Slown, biologist
New Mexico Ecological Services Field Office
2105 Osuna NE
Albuquerque, NM 87113

Dear Mr. Slown,

Please consider the following comments on the Draft Mexican Wolf Conservation Assessment on behalf of the Center for Biological Diversity, Sierra Club - Grand Canyon Chapter, Western Watersheds Project, and WildEarth Guardians.

The Center for Biological Diversity is a national, nonprofit conservation organization with more than 200,000 members and online activists dedicated to the protection of endangered species and wild places. The Center for Biological Diversity has been actively involved in advocacy and conservation of the Mexican gray wolf since 1990, when we filed suit against the Service and the Department of Defense to compel development of a reintroduction draft environmental impact statement.

Before addressing the specifics of the Draft Mexican Wolf Conservation Assessment, we must address the inherent weakness of a document that represents itself as a compilation of previous reviews, but does not issue any of its own recommendations. Although there is much in the present document to suggest that a revised, up-to-date recovery plan be developed for the Mexican wolf, the present document is constrained in not recommending that. And although the conservation assessment does not deny the clearly dire straits the Mexican wolf finds itself in, the Service does not analyze enough data – or re-analyze any – to identify the severity of the risk of extinction nor to assess the cause in its own management.

We request the following three actions to ensure the Mexican gray wolf has a chance for recovery:

- Cease all authorized trapping, shooting and capture of Mexican wolves, except to protect human health and safety, until at least 100 wolves and 18 breeding pairs are established in the Blue Range Wolf Recovery Area (as projected for 2006).
- Expeditiously complete development of a revised Mexican wolf recovery plan.
- Do not issue an environmental assessment changing the final rule (1/12/1998) in insignificant ways and instead issue an environmental impact statement with a broader set of changes to be finalized after finalization of a revised recovery plan.

The Center for Biological Diversity and other organizations and individuals have proposed additional, detailed management recommendations that can and should be addressed in a final rule change, and recovery recommendations that are the purview of a recovery team. The three bullet-points above are intended as broad-brush measures to

ensure that future recovery and management actions aren't delivered too late for the Mexican wolf.

The Service must commit to the integrity of its information to rectify past and ongoing chicanery. We are glad to read in the Disclaimer (p. 2) that the Fish and Wildlife Service commits to including in the final conservation assessment new data to ensure it is up-to-date when published. In the Mexican Wolf Five-Year Review, in contrast, the Service produced a final version in 2006 that arbitrarily cut off analysis for most subjects at 2003 – with the exception of data from 2004 used in assessing cattle kills due to wolves (Five-Year Review pp. SEC 3-9, 3-13, 3-14) and data from 2005 pertaining to wolf/dog hybridization (pp. TC-16).

The result of the Five-Year Review omitting predicted and actual population numbers in the years following 2003 was to suppress and fatally distort the effects of federal predator-control on the population, concluding (Appendix II) that “Projected population growth and current population are very similar” (TC-50), and “population counts are at projected levels, with mortality lower than estimated in the FEIS (USFWS1996). Thus, the overall Reintroduction Project is functioning at least as well as projected” (TC-23). Unstated was the fact that the annual census population of the Mexican wolf fell from 55 animals at the end of 2003, to 44 at the end of 2004, to 33 at the end of 2005; the review arbitrarily cut off such demographic information prior to the twenty percent annual population decline that occurred in 2004 and 2005. This misrepresentation undercut the validity of the analysis by significantly diminishing the data set, and dramatically misrepresented the effects of management.

Furthermore, scientists' and others' substantive comments to the draft version of the five-year review, including comments that supplemented incomplete data, were completely disregarded by the Service in finalizing the document verbatim from the draft.

On page 3, under Acknowledgments, “the Southwest District [sic] Population Segment (SWDPS) Recovery Team” is credited with contributing “the ideas that form the foundation” of the draft conservation assessment. Nevertheless, dismayingly, the draft conservation assessment omits key documents, assessments and decisions of that recovery team. For example, the recovery team voted to include the concept of *ecological effectiveness* in its analysis, though the present document does not discuss that.

Also in the Acknowledgments, on page 3, in a preview of further excuse-making in subsequent pages, the Service states that the “planning process was put on hold by the Service in 2005 due to litigation.” That statement of cause (repeated on p. 23 and elsewhere in this document) is disingenuous and untrue, as the next sentence reveals: “Their work has not been resumed, although the agency maintains its intent to develop a revised plan when circumstances permit.” Yet, the legal “circumstances” for the Mexican wolf, as reflected in formal rule-making and permitted authorities, are precisely the same – identical – on the following dates:

- January 9, 2009, the date in the Federal Register on which this draft conservation assessment was released;

- March 11, 2005, the date the Service announced the most recent termination of the planning process for a revised Mexican wolf recovery plan;
- 1995 (unknown month and day), in which a draft revised Mexican Wolf Recovery Plan was circulated within the Service but not finalized;
- September 15, 1982, the date the Mexican Wolf Recovery Plan was officially accepted by the Service; and,
- March 9, 1978, when a Federal Register rule consolidated the previous subspecific gray wolf listings, including that of the Mexican gray wolf, under the Endangered Species Act into a nationwide (contiguous states) gray wolf listing as endangered except in Minnesota where it was listed as threatened.

That 1978 rule specifically ensures that the Service “will continue to recognize valid biological subspecies for purposes of its research and conservation programs.” The Service is willfully misleading the public in blaming conservationists’ litigation for its failure to develop an up-to-date recovery plan -- or rather repeated federal court rulings as a result of litigation – despite the fact that those rulings preserved the status quo under which the Service had committed itself to recovery planning for the Mexican wolf since 1978.

The Foreword to the draft conservation assessment describes itself as a “unique document developed in response to the unique needs of the Service at this time,” adding: “It has been over 20 years since the completion of the 1982 Mexican wolf Recovery Plan, and an up-to-date description and assessment of the gray wolf (*Canis lupus*) recovery effort in the Southwest is needed” (p. 5). Yet the conservation assessment is not unique in one key respect: It is one of a series of non-regulatory documents on the Mexican wolf issued by the Service that justify action but do not provide it. Since reintroduction began in 1998, the Fish and Wildlife Service has produced almost a forest-worth of analysis documents with no significant regulatory authority over the management of Mexican wolves -- including the following:

- Environmental Assessment on translocation (2000);
- Three-Year Review Paquet Report (2001);
- Briefing Book (2001);
- Stakeholder Workshop Final Report (2001);
- Five-Year Review (2005); and now the
- Draft Mexican Wolf Conservation Assessment (2009).

The only one of the documents above to have any regulatory affect was the first one, the 2000 EA on translocation. Since then, the time spent issuing each document has ultimately served a dilatory purpose. In 1999, an internal Service report recommended a rule change to allow for direct release of wolves into the Gila National Forest – and that recommendation was approved for action by the Assistant Secretary of the Interior the same year when its action would still have been efficacious (unlike today, when other problems for the Mexican wolf have become far more urgent and require prioritization in the rule-making process). The Service drafted language for a proposed rule that would accomplish that in February 2000, but failed to issue a proposal. Then, in April 2001, the Service received the preliminary results of the Three-Year Review with recommendations

(including those to be initiated “immediately”) that have not been enacted. In 2003, Service biologists drafted language for a rule change that would allow for wolves to establish territories outside of the recovery area, as recommended in the Three-Year Review. The Five Year Review specified that the Mexican Wolf Adaptive Management Oversight Committee (AMOC) would send a proposed rule change draft to the Service by April 30, 2007, but the AMOC did not do so. The result of the Service’s inaction is failure of the population to reach the reintroduction project’s goals – precisely as predicted in the Three-Year Review.

The Service is now poised to issue another document – an environmental assessment on direct release of wolves in New Mexico and on watering down the definition of Mexican wolf “breeding pairs” – that is intended to have no significant effect on the Mexican wolf. It is imperative, instead, that the Service swiftly switch from endless and always-out-of-date analysis, to action: Convene a recovery team, promulgate a comprehensive rule-change for the Blue Range wolf population that will require an EIS, and in the meantime cease trapping and shooting Mexican wolves, as called for by the American Society of Mammalogists in their June 2007 resolution and by the Association of Zoos and Aquariums.

P. 19: The Service should use the legally binding definition of “breeding pair” from the Jan. 12, 1998 rule until and unless it succeeds in passing another rule that changes that definition. The current legal definition, as opposed to the Service’s informal definition that allows for sterile step-parents of pups born to a deceased wolf to be counted as breeding pairs, provides an important index to the capacity of the wolf population to increase without augmentation.

Historic range of the Mexican wolf. In the “History of the Gray Wolf Recovery Program in the Southwest” the Service characterizes gray recovery as geographic based despite the Service’s binding 1978 primary commitment to conservation of subspecies: “These recovery programs were centered in three core geographic areas” and “The Mexican Wolf Recovery Plan was finalized in 1982, solidifying the focus of gray wolf recovery efforts in the southwestern United States on the Mexican wolf subspecies” (p. 16). This representation along with the overly broad characterization of Mexican wolves as “historically inhabit[ing] the southwestern United States and Mexico (p. 7) obscures the special evolutionary connection between *Canis lupus baileyi* and the Sky Islands region of the U.S. The following discussion of Mexican wolf historic range utilizes the more precise identification of subspecies represented through the Latin nomenclature rather than the colloquial use of “Mexican wolves,” the meaning of which has changed.

Canis lupus baileyi was first identified as a unique subspecies from a diminutive male wolf killed at around 6,700 feet elevation in the mountains of Chihuahua, Mexico by two biologists for the Bureau of Biological Survey (predecessor to the U.S. Fish and Wildlife Service). Edward W. Nelson, later to be chief of the Survey, and Edward A. Goldman “collected” the animal during an 1899 expedition. Three decades later and with 64 more specimens having become available for their examination, they published a description of the creature in a May, 1929 *Journal of Mammalogy* article, classified it as a subspecies,

and named it for fellow Survey employee Vernon Bailey. (E. W. Nelson and E. A. Goldman, "A New Wolf from Mexico," *Journal of Mammalogy*, vol. 10 no. 2, May, 1929, pp. 165-166.)

What seemed striking to the two scientists in 1929, and to Goldman in his 1944 taxonomic contribution to *The Wolves of North America*, was the Mexican wolf's smaller size and distinct dentition in comparison to the subspecies to its north and east. "In southeastern Arizona and southwestern New Mexico, *baileyi* intergraded with *mogollonesis*," Goldman wrote. "Although wolves are known to wander over considerable distances, the transition from *baileyi* to *mogollonesis* is remarkably abrupt." (Young, Stanley P. and E. A. Goldman, *The Wolves of North America*. American Wildlands Institute, Washington, D.C. 1944, pp. 470, 471.)

In *The Wolves of North America*, Goldman mapped the taxonomy of gray wolves throughout the continent based on comparison of skulls and pelts, and on that phenotypic basis he drew the line that delineated the northern range of *C. l. baileyi* – approximately at today's Interstate 10 where it crosses from New Mexico to Arizona. In 1959, the great mammalogist E. Raymond Hall, Ph.D., of the University of Kansas, kept *baileyi* intact as a subspecies and confirmed Goldman's boundary line. (Hall, E. R., and K. R. Nelson, *The Mammals of North America*. The Ronald Press, New York. 1959.)

In 1980, Michael A. Bogan, Ph.D., and Patricia Mehlhop, Ph.D., suggested that two extinct southwestern subspecies – the Texas gray wolf (*C. l. monstrabilis*) and the Mogollon mountain wolf (*C. l. mogollonensis*) – could in fact be attributable to *baileyi*. (Bogan, M. A. and P. Mehlhop. "Systematic relationships of gray wolves (*Canis lupus*) in southwestern North America." National Fish and Wildlife Laboratory, Washington, and Univ. of New Mexico, Albuquerque. 1980.) (After wolf extirpation from the western U.S., dispersing *baileyi* individuals from Mexico had traveled into the ranges of these other two subspecies, demonstrating that – until they were killed by the Fish and Wildlife Service – *baileyi* could survive in these regions.)

The 1982 Mexican Wolf Recovery Plan was agnostic on whether *baileyi* should be synonymized with these other two subspecies, but adopted the revised taxonomy with the statement that the "additional room provided by the Bogan and Mehlhop assessment" would help the recovery team find "suitable wolf release areas."

In 1986, another Fish and Wildlife Service taxonomist, Ronald M. Nowak, Ph.D., suggested "accept[ing] *baileyi* as a separate subspecies as originally delineated," explaining: "I have long been impressed by the tendency to small size shown by gray wolves of Mexico and the border region. A complete gray wolf skull found at a late Pleistocene site in Nuevo Leon is the smallest of any adult North American *C. lupus* that I have seen."

Nowak affirmed the original northern range boundary for *baileyi* (and extended it to the east into the range of *mostrabilis*), but endorsed placement of *baileyi* "beyond its designated range, on the grounds that it could have occupied such sites naturally, if other

wolves had not already been there, and, indeed, may have been attempting to do just that after the other wolves had been extirpated." (R. M. Nowak to J. Johnson (USFWS), "Mexican Wolf Reintroduction" (memo), 7/15/1986.) (Indeed, the current reintroduction project occurs in the Gila and Apache National Forests, within the originally identified range of *mogollensis*.)

The evidence of uniqueness is corroborated in the genetic record. In 1992, four researchers led by Robert K. Wayne, Ph.D., published a DNA study indicating that *bailey* is markedly different from all other North American wolves (but they did not assign a specific boundary to its unique assemblage of genes). (Wayne, Robert K.; Niles Lehman; Marc W. Allard and Rodney L. Honeycutt, "Mitochondrial DNA Variability of the Gray Wolf: Genetic Consequences of Population Decline and Habitat Fragmentation," *Conservation Biology*, Vol. 6, No. 4. 12/1992.)

Collectively, this additional detail makes clear that the core of the Mexican wolf's range, the area in which it evolved, comprises the Sierra Madre range in Mexico and the Sky Islands range in southeastern Arizona and the Bootheel of southwestern New Mexico. An additional range roughly consisting of the Mogollon Rim, the present Blue Range Wolf Recovery Area, eastern New Mexico and the desert and range country of West Texas belonged to closely related subspecies, and is appropriately described today as suitable for the Mexican wolf. Recovery considerations based on subspecies as well as that based on geography is needed to ensure the recovery of *Canis lupus baileyi*.

The Service's convenient myth of "naïve" wolves. The Service's suggestion that so-called "naïve" wolves – that is, animals newly released to the wild -- may slow population success (pp. 19-20) is based on a misleading analysis in the Five-Year Review. The method for estimating success of wolf releases is flawed: "We considered a successful initial release or translocation to be any wolf that ultimately bred and produced pups in the wild (breeding season data from 2004 for wolves released in 2003 was included in the analysis). We excluded wolves whose fate was unknown (e.g. uncollared released pups, or missing collared animals) from this analysis. We considered each time an animal was released to be an independent sample" (Five-Year Review, p. TC-5).

This method takes a very small sample size, posits success as an either/or variable based on subsequent reproduction, ignores the preponderance of evidence that most missing wolves have died (as properly acknowledged on p. TC-7 in categorizing missing wolves as part of the failure rate) and excludes some causative factors that are far more important than the ones that were chosen to be assessed.

A small sample size is an inherent limit to this model, but the weakness it introduces should be minimized through a more careful look at the specific circumstances attending each wolf released to ensure that idiosyncratic factors do not overwhelm the data and confound the analysis. A prime example is the fate of the Lupine Pack, nine animals who died as a result of multiple causes, but all likely precipitated by intraspecific strife that resulted from the Service's limitations on where initial releases could take place – ie.

only Arizona, where wolf packs already inhabited most available territories. (See more information, below.)

Success should be measured by the total number of successfully raised pups, which would indicate more than mere parturition but also the crucial factor of the pups' ultimate survival as well as how many litters were produced. (See explanation, below.)

Several factors assessed as causes of release success or failure are in fact minimally germane and should be removed or conflated with others. First, the year of release does not convey any biological information (though it might be pertinent to an astrological analysis). Second, time spent in the acclimation pen is functionally synonymous with method of release, and thus one of these should be dropped from the analysis. Third, state (ie. New Mexico or Arizona) to a large extent is a stand-in for the question of type of release (ie. translocation or initial release), and does not in and of itself represent a biological factor; information that might stem from using this factor could better be analyzed by substituting "distance from other wolf pack home ranges," which better distinguished the situation in New Mexico from that in Arizona during the period under review. What ultimately may be the most important factor in success of wolf release is the annual unit months (AUMs) of livestock grazed or authorized (if actual use figures are not available) within a given distance from the release site.

The combination of poorly chosen factors to assess, and other methodological choices that fail to capture the reality of what is influencing population demographics result in the mistaken conclusion that translocations (and by implication, the capture of wild animals) offer a better chance for success than initial releases. This conclusion, in turn, helps justify heavy-handed policies that result in capture of more wolves from the wild, because the implication that such captures coupled with subsequent releases might ultimately benefit the wolves militates against a more cautious approach.

But such is not the case. Success would better be measured by total number of successfully raised pups, rather than as a yes/no proposition. This method would properly account for the two litters of pups (from the first Pipestem Pack and from the Francisco Pack) largely destroyed as a probable result of being captured or residing in captivity – and thus count these packs as less successful as a result. In the case of the Pipestem Pack, veterinarian Bret Snyder who conducted the necropsy on the three victims opined that it was "most likely" that the fatal recrudescence of the disease occurred because of stress from capture. In the case of the Francisco Pack, Service personnel warned that construction activity proximate to the wolves' holding pen would be stressful and might hurt the pups; subsequently all five pups disappeared and were assumed to have died and been consumed by the remainder of the pack.

The Five-Year Review, by requiring a standard close to beyond-a-reasonable-doubt, improperly discounts the probable effects of capture and residing in captivity in contributing to these eight pups' deaths. And by not accounting at all for these deaths in assessing release success, the review improperly fails to account for the factor that led to their capture – relative proximity of their release locations to livestock – a factor

instrumental in reducing the number of their surviving progeny. Counting the breeding animals of these packs as “successful” misrepresents the reality that the numbers of their progeny in the wild were significantly reduced in the course of events (capture and residing in captivity) that had to take place in order for them to be re-released. The yes/no proposition obscures the effects of control operations, and the factors leading to control operations, that contributed to the difference between the projected population of 83 wolves at the end of last year and the actual population of 33 wolves (and the projected number of 15 breeding pairs and the actual number of 5 breeding pairs). The yes/no standard is too gross a measurement, and fails to identify the nuances of cause and effect that must be examined in particular when a small sample size increases the chances of erroneous conclusions.

Furthermore, proximity to established packs should be an analysis factor because of its clear causative relation to the fatal intraspecific strife that precipitated the demise of the nine-member Lupine Pack. As best as can be determined by the evidence compiled by the Fish and Wildlife Service, these animals were released within the territory of another pack, which attacked them, thus causing the alpha male to run into a rattlesnake, which bit him, causing his neck to swell, resulting in his death by asphyxiation through constriction by his radio collar. (We note that on p. 29 this document attributes this death to snakebite, listing it among the non-human-caused mortalities, which is not the full story.) His death and the territorial behavior of the established pack led to the other animals fleeing separately, their failure to establish a home range together, their individual vulnerability to poachers and hit and run drivers – and thus to loss of the entire pack. (We also note that this document on p. 37 seems to overlook this instance of management-induced intraspecific strife.) But the Five-Year Review analysis tallies these nine unsuccessful animals as falling within the initial release category – thus skewing the analysis due to a factor that is only incidentally (because animals released from captivity must be released in Arizona according to the final rule) germane to the circumstances of their unhappy fates. Similarly, the fact that most were pups would skew the analysis to over-count age of animals as a factor in their loss. Because nine animals is relatively large in the small sample size analyzed in the Five-Year Review, such misunderstandings of cause and effect contribute to a significant misreading of what factors are actually effecting release success.

The use of the term “naïve” wolves mischaracterizes the real factors behind success or failure in the reintroduction program.

Regulatory and not biological factors are responsible for the reintroduction program’s failure to reach its own demographic goals. The Service misses the opportunity (see for example pp. 21, 37, 40, 42-43, 47, 60, all of which would provide context) to quantify and assess the affects of its own predator control program on the Mexican wolf population, instead concluding with incomplete evidence that poaching (and by illogical extension, generalized negative public opinion – see p. 42) is responsible for the population’s multi-year stagnation and decline. However, as documents the Center for Biological Diversity has received from the Service via FOIA and previously submitted

back to the agency attest, management actions were directly responsible for the following 29 wolf deaths (including animals conceived in the wild and born and died in captivity):

MEXICAN GRAY WOLVES KILLED BY GOVERNMENT

Wolf ID / Pack	Death Date	Cause or Circumstances of Death
m623 / Pipestem	8/24/1999	capture stress-induced disease
f625 / Pipestem	8/30/1999	capture stress-induced disease
m626 / Pipestem	8/30/1999	capture stress-induced disease
M580 / Wildcat	11/9/2001	hyperthermia from helicopter pursuit
AF592 / Sycamore	5/27/2003	shot by Fish and Wildlife Service
??827 / Francisco	6/10/2003	stress from construction activities near pen
??828 / Francisco	6/10/2003	stress from construction activities near pen
??829 / Francisco	6/10/2003	stress from construction activities near pen
??830 / Francisco	6/10/2003	stress from construction activities near pen
??831 / Francisco	6/10/2003	stress from construction activities near pen
AM574 / Saddle	7/11/2004	shot by USDA Wildlife Services
AM729 / Ring	6/26/2005	shot by USDA Wildlife Services
AF511 / Francisco	7/21/2005	capture myopathy
m1018 / Hon-Dah	4/26/2006	capture myopathy
f1020 / Hon-Dah	5/20/2006	captured pup placed with & killed by unrelated wolf
f1021 / Hon-Dah	5/20/2006	captured pup placed with & killed by unrelated wolf
m1022 / Hon-Dah	5/20/2006	captured pup placed with & killed by unrelated wolf
m1023 / Hon-Dah	5/20/2006	captured pup placed with & killed by unrelated wolf
m1024 / Hon-Dah	5/20/2006	captured pup placed with & killed by unrelated wolf
m1025 / Hon-Dah	5/20/2006	captured pup placed with & killed by unrelated wolf
AF1027 / Hon-Dah	5/22/2006	capture myopathy
AM578 / Hon-Dah	5/24/2006	shot by USDA Wildlife Services
M864 / lone wolf	5/28/2006	shot by USDA Wildlife Services
AM993 / Nantac	6/18/2006	shot by USDA Wildlife Services
AF873 / Nantac	7/6/2006	shot by USDA Wildlife Services
M859 / lone wolf	11/22/2006	shot by USDA Wildlife Services
AM796 / San Mateo	2/20/2007	shot by USDA Wildlife Services
m1007 / Saddle	3/16/2007	shot by USDA Wildlife Services
AF924 / Durango	7/5/2007	shot by USDA Wildlife Services

KEY

m = male pup or subadult (18 months or younger)
f = female pup or subadult (18 months or younger)
M = adult male
F = adult female
AM = alpha male
AF = alpha female

?? = pup of unknown sex (dead and consumed by packmates before sex ascertained)
capture myopathy = a disease complex associated with capture or handling of any wild mammal or bird, characterized by hyperthermia and occurring when an animal is unable to cool itself from overexertion, drugs, a heavy coat, reduced blood flow or high environmental temperatures.

In addition, dozens of other wolves have been confined to permanent captivity, and still others have been re-released in inauspicious physical and possibly social and emotional conditions. It is inaccurate to assign poaching greater weight in assessing the population's demographics than the direct and indirect affects of federal predator control.

Furthermore, contrary to the sanguine assurance on p. 60 that "Management has focused on ensuring the representation of genes from each of the three founding lineages in both the captive and wild populations for both short-term and long-term fitness" – the government shooting of AM 574 on July 11, 2004 was carried out despite an April 6, 2004 email from Service biologist Colleen Buchanan (subject line: "San Carlos Wolf M574") warning that 574 was the "most genetically valuable wolf in the wild," was not "genetically redundant" even with other wolves in captivity, and should not be killed.

Though captive management is indeed science-based and exemplary, recent research indicates that after several generations in captivity animals lose the genes for characteristics essential to success in the wild. See Frankham R. 2008. Genetic adaptation to captivity in species conservation programs. *Molecular Ecology* 17(1):325-333. The captive population will not be able to save the wild population from ongoing mismanagement indefinitely.

Livestock carcasses are a leading cause of depredations and must be removed to prevent conflict, rather than scapegoat wolves. Pages 44-45 of the present document understates the considerable evidence that livestock carcasses are undermining wolf recovery – again based on the Five-Year Review (pp. AC-27-33, 57) which understates the incidents in which wolves first scavenged on livestock carcasses and subsequently depredated on livestock, as a result of haphazard record-keeping.

First, the Five-Year Review analysis should not have been based merely on visual observations of wolves scavenging, but also on such instances documented from necropsies performed on dead livestock. Second, the limited (once or twice a week, for the most part) monitoring of the wolves almost certainly missed other scavenging incidents, many of which would have preceded the depredations; it was inappropriate to assume that only those events documented actually occurred. Third, as examples of the failure of consistent record-keeping, Nick Smith of New Mexico Game and Fish informed me (Michael Robinson) that the Gavilan Pack scavenged on a dead cow prior to that pack's killing of cattle in New Mexico, but this was never put in writing. More recently, personnel who wished to remain anonymous in some of the agencies participating in the reintroduction program have informed us that for a period of approximately a year from spring 2004 to spring 2005, during which the Center for Biological Diversity was publicly pointing out the correlation between wolves that scavenge and those that subsequently depredate, USDA Wildlife Services systematically failed to document for the field team instances in which their personnel investigated dead

livestock fed upon by wolves except in the cases that wolves caused the deaths. Records kept today and released to the public still do not make clear in annotating every investigation of a livestock death, whether wolves were present or in the vicinity in the instances in which the animal was not killed by wolves. The AMOC agencies' refusal to keep and maintain adequate records on this issue of public concern, in which data could make a substantial difference in policy formation, undermines any claim that livestock carcasses are insignificant in precipitating the conflicts that wolves ultimately pay the price for.

The example of wolf 592, shot and killed by the Service on May 27, 2003, is misrepresented in the Five-Year Review chart (p. AC-57) of depredating wolves. As evidenced in the documents previously provided the AMOC in the Center for Biological Diversity's comments on the draft of the Five-Year Review, 592 scavenged on livestock in March 2001 prior to beginning to depredate (and she ended up traversing dozens of miles to finally depredate precisely where she had first scavenged two years previously). Similarly, the Five-Year Review's chronology regarding wolf 511's depredations and scavenging incidents was incorrect; this wolf too began depredating subsequent to scavenging.

In other instances, the Five-Year Review chart is misleading in implying that depredations preceded scavenging, when in fact the depredated stock and the scavenged stock were discovered at the same time, in the same area, and chronology was never established. The Gavilan Pack's experience in Arizona is one such instance; the original Pipestem Pack in Arizona is another such instance.

The Five-Year Review and the present document (p. 44) are incorrect in stating that there is no legal means to address this recurring problem. Permittees on the public lands should be required by the Forest Service and BLM to monitor their stock and remove dead animals promptly, or treat them with lime (or other methods) to make them inedible before wolves scavenge on them. The Supreme Court decisions in *Light vs. U.S.* (1911) and *Public Lands Council vs. Babbitt* (2000) make clear the Forest Service and BLM have such authority. Alternately, the Fish and Wildlife Service could by regulation and protocol hold wolves that have been exposed to livestock carcasses of animals that they did not kill exempt from all future control actions based on their subsequent depredations. The Service already utilizes a similar (though loosely worded) regulation pertaining to "attractants" (which include livestock carcasses) in the rule establishing an experimental non-essential population of wolves in the northern Rocky Mountains.

The present document is negligent not only in misrepresenting the impacts of making cattle and horse carcasses available to wolves and habituating them to livestock, but also in failing to identify what level of predator control ultimately caused by such scavenging the Mexican wolf population can sustain in perpetuity while still meeting reintroduction project goals.

Thank you.

Signed,

Michael J. Robinson
Center for Biological Diversity
P.O. Box 53166
Pinos Altos, New Mexico 88053
Via email: michaelr@biologicaldiversity.org