



Gray Wolves Under the Endangered Species Act (ESA): Distinct Population Segments and Experimental Populations

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Summary

The wolf was nearly eradicated from the lower 48 states in the first half of the 20th century. In 1974 U.S. Fish and Wildlife Service (FWS) placed the gray wolf subspecies, the eastern timber wolf and the northern Rocky Mountain wolf, on the Endangered Species Act's (ESA) first list of endangered species. In 1978 FWS replaced the subspecies listings by listing the gray wolf (*Canis lupus*) species as endangered in all of the conterminous 48 states except Minnesota, where FWS listed it as threatened. In 2011 FWS found that this listing was in error; that more targeted regional units were appropriate for wolves (notably in the Southwest and Pacific Northwest); that a newly recognized species, the eastern wolf (*Canis lycaon*), not the gray wolf, occupied the Northeast; and that all or parts of 29 eastern states should be removed from the gray wolf's historic range.

With the exception of *experimental populations* (Ex Pops) of gray wolves that FWS established in order to reintroduce wolves to selected areas, protections for the gray wolf have diminished as wolf populations have increased in areas such as the Northern Rocky Mountains. The use of *distinct population segments* (DPSs), a term created in the 1978 ESA amendments, has played a role in reduced protection. Through DPSs, vertebrate species may be divided into distinct groups, based on geography and genetic distinctions for listing purposes.

Ex Pops of wolves were reintroduced in three regions of the United States in the 1990s: Central Idaho, Yellowstone, and the Blue Range of Arizona and New Mexico. The Ex Pops in Central Idaho and Yellowstone have grown to over 1,650 wolves as of December 31, 2010, while the Mexican gray wolf population of the Blue Range has not surpassed 59 wolves, and as of January 2011 totaled 50.

ESA protection for wolf DPSs has varied since the first DPSs, Western, Eastern, and Southwestern, were proposed in 2003. Each effort by FWS to delist the wolf or designate a DPS has been rejected by a court or settled by the agency. Most recently, the April 2009 rules that had established and then delisted DPSs in the Western Great Lakes and the Northern Rockies were nullified as a result of litigation. As a consequence, the Northern Rockies wolves resumed their Ex Pop status, meaning they were treated as threatened in most circumstances but were endangered outside of the Ex Pop boundaries. Wolves in the rest of the lower 48 states were again endangered, with the exception of Minnesota wolves, which were threatened.

The April 2009 rule for the Northern Rockies was the topic of legislation in April 2011, when Congress took the unusual step of directing FWS to delist an endangered species. Section 1713 of P.L. 112-10 required FWS to reissue the 2009 Northern Rockies DPS rule. FWS's reissuance of that rule on May 5, 2011, ended federal protection of the gray wolf in Montana, Idaho, eastern Washington, eastern Oregon, and north-central Utah, but kept the wolf as a listed species in the remainder of the lower 48 states. Also on May 5, 2011, FWS proposed designating a DPS in the Western Great Lakes area and delisting those gray wolves.

This report analyzes the ESA as it applies to gray wolf wolves and, in particular, to their treatment as Ex Pops and DPSs.

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Introduction

For centuries, wolf populations have been under pressure by humans. Wolves are carnivores, feeding not only on a variety of animal species smaller than themselves, but also on very large mammals such as bison, elk, and even moose. Wolves are able to prey on large mammals by hunting cooperatively in packs. However, these large species are also favorite game animals for human hunters. In addition to game animals, their prey may include livestock such as cattle and sheep; some people perceive them as a direct threat to humans as well. These habits led to an effort to reduce or eliminate the species. Wolves were eventually eliminated in most states in an effort supported by the science community at the time. But coinciding roughly with the forester Aldo Leopold's essay, "Killing the Wolf," in *A Sand County Almanac* in 1948, the view that wolves must be eliminated began to change. Leopold wrote:

I was young then, and full of trigger-itch; I thought that because fewer wolves meant more deer, that no wolves would mean hunters' paradise. But after seeing the green fire die, I sensed that neither the wolf nor the mountain agreed with such a view.... Since then I have lived to see state after state extirpate its wolves. I have watched the face of many a newly wolfless mountain, and seen the south-facing slopes wrinkle with a maze of new deer trails. I have seen every edible bush and seedling browsed, first to anaemic desuetude, and then to death.

Leopold's somewhat poetic understanding of predator-prey interactions marked the beginning of a new scientific view of the role of predators in ecosystems. Scientists came to agree that, in the absence of major predators, prey populations would expand until some other factor (usually food) limited their population growth. As seen in a variety of ecosystems, the elimination of major predators devastated plant populations and led to serious reductions in the other species depending on those plants for food, nesting, migration habitat, or concealment or in any species dependent on the undisturbed ecosystem. The disappearance of wolves, eagles and other hawks, bears, and other top carnivores in much of their former ranges contributed to the passage of the Endangered Species Act (ESA) in 1973, and ultimately, to the re-introduction of wolves into parts of their former range. And predictably, the conflicts over livestock and game that led to the wolf's near extinction a century ago re-emerged. The ensuing conflicts over wolf management are the topic of this report.

Wolf Populations: A Taxonomic View

To protect gray wolves under the ESA, there needs to be some agreement on what a gray wolf is scientifically. Like many large mammals, such as bears (*Ursus arctos*), mountain lions (*Felis concolor*), and white-tailed deer (*Odocoileus virginianus*), gray wolves (*Canis lupus*) have a complicated, even convoluted, taxonomic history. Variations in color, size, and bone structure have led some mammalogists to designate wolves in different areas as different subspecies or populations, whereas other experts would recognize only a single species with variability. A few key terms are central to the taxonomic debate discussed below:

- A *population* is a group of "organisms of the same species that inhabit a specific area."

- A *species* is a “naturally [occurring] population or a group of potentially interbreeding populations that is reproductively isolated (i.e., cannot exchange genetic material) from other such populations or groups.”
- A *subspecies* is a “taxonomic category that subdivides species into morphologically distinct groups of individuals representing a step toward the production of a new species, although they are still fully capable of interbreeding. Subspecies are usually geographically isolated.”
- *Taxon*, or the plural *taxa*, is defined as “a grouping of organisms given a formal taxonomic name at any rank: species, genus, family, order, class, division, phylum, or kingdom.”¹

These terms may appear clear; however, there are no simple measures to draw unequivocal distinctions. Biologists commonly describe their colleagues as *lumpers* or *splitters*, based on their inclinations in classifying organisms. As the names suggest, lumpers are those who tend to minimize differences, and see one or a few species, perhaps with some variations, while splitters tend to emphasize those differences, dividing a species into many subspecies, or populations. As one well-known mammalogist once stated:

Splitters make very small units—their opponents say that if they can tell two animals apart, they place them in different genera, and if they cannot tell them apart, they place them in different species. Lumpers make large units—their opponents say that if a carnivore is neither a dog nor a bear they call it a cat.²

For wolves, which are (or were) found in temperate and polar areas throughout the Northern Hemisphere, some observers (splitters) would argue that there are as many as 24 subspecies in North America and 8 in Europe and Asia.³ More recently, lumpers have had the upper hand in the scientific community. However, that tide may be changing. In May 2011, the U.S. Fish and Wildlife Service (FWS) proposed recognizing a third species of wolf, the eastern wolf (*Canis lycaon*), in addition to the gray and red wolf.⁴ (See “2011 Regulatory and Legislative Activity” below, for more on this announcement.)

This muddled state of taxonomic affairs is entirely predictable for several reasons. First, wolves are extremely wide-ranging, both as a species and as individuals, so occasional interbreeding among them could certainly confuse the picture. Second, the consistency of variations over time is hard to determine, since long-range studies of long-lived species are rare. Third, evolutionary change does not stop, and wolves are an adaptable species, as shown by their behavior and by their presence in a tremendous variety of ecosystems.⁵ The debate among academic scientists also

¹ All the definitions are from Henry W. Art (ed.), *The Dictionary of Ecology and Environmental Science* (New York: Henry Holt and Co. 1993).

² George Gaylord Simpson, “The Principles of Classification and the Classification of Mammals,” *Bulletin of the American Museum of Natural History*, vol. 85 (1945), p. 23. Debates over the proper classification of species are not rare, particularly for vertebrates; only the listing of a species and the need for legal clarity over what is protected and what is not bring such debates into a practical realm.

³ See discussion, citing various authors, in L. David Mech, *The Wolf: The Ecology and Behavior of an Endangered Species*, pp. 29-31 (Garden City, NY: Natural History Press 1970).

⁴ 76 *Federal Register* 26086 (May 5, 2011).

⁵ For example, should global warming proceed and arctic snow cover diminish, will the genes for white coats diminish in the arctic wolves? That may be likely, since more brightly colored wolves would be at a disadvantage in much of the year and over a growing area. Natural selection would then tend to disfavor these animals and their offspring.

has an air of informed judgment—and there is no reason to predict that the scientific debate will end any time soon.

The Endangered Species Act

The Endangered Species Act⁶ (ESA or the Act) provides for the protection and conservation of species that the FWS or the National Marine Fisheries Service identifies as threatened or endangered.⁷

Listing a Species as Endangered or Threatened

Under the ESA, if FWS determines that the best scientific information available indicates that a species is in danger of becoming extinct throughout all or a significant portion of its range, FWS lists the species as endangered.⁸ If FWS determines that a species is likely to become endangered within the foreseeable future, FWS lists the species as threatened.⁹ If the scientific bases underlying a listing change, FWS may take three steps: delist the species, thereby removing it from ESA protection; downlist it, decreasing its protection level from endangered to threatened; or uplist it, increasing its protection level from threatened to endangered.

ESA amendments further allow FWS to list distinct population segments (DPS) within vertebrate species for protection. FWS may also reintroduce experimental populations (Ex Pops) to areas that the species no longer occupies within its historic range.¹⁰

The ESA prohibits taking an endangered wildlife,¹¹ which means it is illegal to harass, harm, or kill such species.¹² FWS regulations further prohibit taking a threatened species unless special rules are in place.¹³ However, the taking prohibition is not absolute and may be allowed for threatened species, including threatened DPSs and Ex Pops that are treated as threatened. FWS may issue Section 4(d) rules or special rules to provide customized protection that FWS deems necessary and advisable for the species' conservation.¹⁴ Under special rules, taking species, including killing them, may be allowed. The special rules are promulgated in Title 50 (Part 17) of the Code of Federal Regulations.

The ESA requires FWS to develop a recovery plan for listed species¹⁵ that will include a description of necessary management actions, measurable criteria for when a species can be delisted, and estimated costs to achieve this goal.

⁶ For a more detailed explanation of the ESA, see CRS Report RL31654, *The Endangered Species Act: A Primer*.

⁷ Because this report is about the gray wolf, discussion of ESA authority will reference only FWS, which is the Service overseeing the wolves' protection.

⁸ 16 U.S.C. § 1533(b) – criteria for listing; 16 U.S.C. § 1532(6) – definition of endangered. In the event that resources for listing are limited, FWS will list the species as “warranted but precluded” under 16 U.S.C. § 1533(b)(3)(B)(iii).

⁹ 16 U.S.C. § 1532(20).

¹⁰ 16 U.S.C. § 1539(j).

¹¹ 16 U.S.C. § 1538.

¹² 16 U.S.C. § 1532(19).

¹³ 50 C.F.R. § 17.31.

¹⁴ 16 U.S.C. § 1533(d).

¹⁵ 16 U.S.C. § 1533(f).

Experimental Populations

In 1982, Congress modified the ESA to allow reintroducing Ex Pops of listed species “outside the current range of such species if the Secretary determines that such release will further the conservation of the species.”¹⁶ Congress intended Ex Pops as a way to expand current ranges of listed species without imposing severe restrictions of private and public land. The practice allows introduction of a species outside its current range to restore it to its historic range.

Two criteria must be met to establish an experimental population under the law. First, the Department of the Interior (DOI) must authorize the release of the population. Second, the population must be “wholly separate geographically from nonexperimental populations of the species.”¹⁷ Congress required the separation so that the introduced population could be clearly distinguished from existing populations of the species.

Under the ESA, members of an Ex Pop generally are treated as threatened,¹⁸ and are eligible for special rules.¹⁹ A congressional committee referred to special rules as a way to reduce public opposition to the release of Ex Pops of predators, such as wolves:

The committee fully expects that there will be instances where the regulations allow for the incidental take of experimental populations.... The committee also expects that, where appropriate, the regulations could allow for the directed taking of experimental populations. For example, the release of experimental populations of predators, such as red wolves, could allow for the taking of these animals if depredations occur or if the release of these populations will continue to be frustrated by public opposition.²⁰

Section 10(j)(2)(B) of the ESA requires FWS to determine whether the Ex Pop is essential to the continued existence of an endangered or threatened species, otherwise the Ex Pop is deemed nonessential. Currently, there are no essential experimental populations. Critical habitat is not designated for nonessential Ex Pops.

Examples of species with nonessential experimental populations are the Colorado pikeminnow (or squawfish), the southern sea otter, the gray wolf (in the Southwest, central Idaho, and Yellowstone areas), the black-footed ferret, and the whooping crane.

Distinct Population Segments

The ESA definition of *species* has changed since the law’s enactment. In 1973 the definition included “any subspecies of fish or wildlife or plants and any other group of fish or wildlife of the same species or smaller taxa in common spatial arrangement that interbreed when mature.”²¹ In

¹⁶ P.L. 97-304 § 6(6), 96 Stat. 1424; 16 U.S.C. § 1539(j).

¹⁷ 16 U.S.C. § 1539(j). Because this appears in Section 10(j) of the Public Law enacting the ESA, P.L. 93-205, as amended, it is sometimes referred to as ESA § 10(j).

¹⁸ 16 U.S.C. § 1539(j)(2)(C). See discussion of Section 4(d) Rules, below.

¹⁹ 16 U.S.C. § 1533(d).

²⁰ 1982 U.S. Code Cong. and Admin. News, at 2834.

²¹ P.L. 93-205, § 3(11), 87 Stat. 886.

1978 Congress amended that definition to include the term *distinct population segment* (DPS), which was limited to vertebrates.²² The change was controversial.

The General Accounting Office (GAO) (now the Government Accountability Office) recommended limiting the definition of *species* to higher taxonomic categories than populations, and excluding all distinct populations, including geographically separated populations.²³ GAO proposed the following definition: “The term ‘species’ includes any subspecies of fish, wildlife, or plants.”²⁴

Congress did not follow the GAO recommendation. It agreed with FWS that the service needed to be able to adopt different management practices for different populations, based on need. A Senate committee report discussing populations said, “the committee agrees that there may be instances in which FWS should provide for different levels of protection for populations of the same species,” but advised that the practice be used “sparingly and only when the biological evidence indicates that such action is warranted.”²⁵

Thus, Congress revised and limited the definition of *species* in 1978 by eliminating taxonomic categories below subspecies from the definition, except for vertebrates.²⁶ The revised, and still current, definition is “any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.”²⁷ However, the phrase *distinct population segment* had no meaning in the scientific community outside of the ESA, and was not used in ESA listings by FWS for nearly two decades.

Regulatory History of DPSs

A DPS refers generally to a portion of a listed species that is separated from the rest of the species by genetic distinction and range. The legislative history offers two examples of when the same species should have different protection: (1) when a U.S. population of an animal is near extinction even though another population outside the United States is more abundant; and (2) where conclusive data have been available only for certain populations of a species and not for the species as a whole.²⁸

In 1996 FWS introduced its DPS policy (hereinafter referred to as “the Policy”).²⁹ The Policy contains the criteria that must be met for a species to be protected at the population level. First, the population segment must be discrete. Factors considered to determine discreteness are whether the segment is “markedly separated from other populations of the same taxon as a

²² P.L. 95-632; 16 U.S.C. § 1532(16).

²³ GAO Testimony before the Subcommittee on Resource Protection, No. 108960, p. 5 (April 3, 1979).

²⁴ GAO Testimony before the Subcommittee on Resource Protection, No. 108960, Attach. 1 (April 3, 1979).

²⁵ S.Rept. 96-151, p. 7 (May 15, 1979). The discussion occurs after the amendment, because, according to the Senate report, “some clarification would be useful.”

²⁶ H.Rept. 95-1625 at 25 (September 25, 1978). Restriction to vertebrates is a severe limitation in terms of numbers of species able to enjoy this level of protection. Insects alone outnumber all other animals by three to one. Donald J. Borror, et al., *An Introduction to the Study of Insects*, p. 1. (Saunders College Publishing: New York, 5th ed. 1981).

²⁷ 16 U.S.C. § 1532(16).

²⁸ S.Rept. 96-151, p. 7 (May 15, 1979).

²⁹ 61 *Federal Register* 4722 (February 7, 1996).

consequence of physical, physiological, ecological, or behavioral factors.”³⁰ Discreteness can also be found if the population is delimited by international governmental boundaries. Although state boundaries are frequently used to describe a DPS, they cannot be used under the Policy to determine discreteness.

Next, the population segment must be found to be significant, meaning its demise would be an important loss of genetic diversity.³¹ Four factors are listed in the Policy for determining a species’ significance: (1) persistence of the segment in an ecological setting unusual or unique for the taxon; (2) evidence that loss of the DPS would result in a significant gap in the range of the taxon; (3) evidence that the DPS represents the only surviving natural occurrence of a taxon within its historic range; or (4) evidence that the DPS differs markedly from other populations of the species in its genetic characteristics. Genetic evidence may be considered but is not required. The Policy indicates that “available scientific evidence of the discrete population segment’s importance” will be considered in finding significance, but does not specify the *best* available scientific evidence.

If a species is found to be both discrete and significant, then its status is reviewed to see whether it is endangered or threatened. The same criteria are used for a DPS listing as for any other listing. The determination must be based solely on the “best scientific and commercial data available.”³²

According to the Policy, agency efficiency and focus were two intended benefits of DPSs. The Policy said determining DPSs will “concentrate ... efforts toward the conservation of biological resources at risk of extinction.”³³ The Policy suggested the practice of using DPSs could help endangered species by focusing on smaller groups:

This may allow protection and recovery of declining organisms in a more timely and less costly manner, and on a smaller scale than the more costly and extensive efforts that might be needed to recover an entire species or subspecies. The Services’ [FWS & the National Marine Fisheries Service’s] ability to address local issues (without the need to list, recover, and consult rangewide) will result in a more effective program.³⁴

FWS has followed Congress’s admonition to apply the practice “sparingly.” According to the most recent list compiled by FWS, only 47 of the 375 vertebrates within the United States listed under the ESA are DPSs.³⁵

Agency Use of DPSs

In six cases, the listing classification of DPSs appears to be used solely to remove animals from protected status. The DPS designation and the delisting occurred on the same day in the same

³⁰ 61 *Federal Register* at 4725.

³¹ 61 *Federal Register* at 4724.

³² ESA § 4(b); 16 U.S.C. § 1533(b).

³³ 61 *Federal Register* at 4725.

³⁴ 61 *Federal Register* at 4725.

³⁵ The list, dated December 16, 2010, is available from the authors. This list includes the Sonoran Population of the Bald Eagle, even though its DPS status was ended by a court on September 30, 2010. *Center for Biological Diversity v. Salazar*, 2010 WL 3924069 (D. Ariz. September 30, 2010). See also 75 *Federal Register* 8610 (February 25, 2010) (publishing FWS determination that a DPS designation was not justified).

Federal Register notice. Four instances are for gray wolf DPSs. The only designation and delisting that remained in place (the Columbian white-tailed deer) was the one not challenged in court. The six DPS designations are:

- Columbian white-tailed deer, Douglas Co. DPS—July 24, 2003;
- Gray wolf, Western Great Lakes DPS—February 8, 2007;³⁶
- Grizzly bear, Yellowstone DPS—March 29, 2007;³⁷
- Gray wolf, Northern Rocky Mountain DPS—February 28, 2008;³⁸
- Gray wolf, Western Great Lakes DPS—April 2, 2009;³⁹
- Gray wolf, Northern Rocky Mountain DPS—April 2, 2009;⁴⁰

Some have criticized using DPSs to remove ESA protections from certain segments of a listed species rather than using it to protect species. The district court reviewing a challenge to the 2007 Western Great Lakes DPS designation and delisting suggested that this practice was contrary to the ESA.⁴¹ The court said the ESA did not unambiguously allow a species to be designated as a DPS at the same time it was delisted, noting that a goal of the Act was to protect species. The court vacated the designation and the delisting, and remanded the matter to FWS.

In other examples, the species has become downlisted (having its status dropped from endangered to threatened) the same day as being designated a DPS:

- Gray wolf, Western DPS—downlisted April 1, 2003;
- Gray wolf, Eastern DPS—downlisted April 1, 2003.

In other examples, a gray wolf population has been downlisted (having its status dropped from endangered to threatened) the same day as it was designated a DPS:

- Gray wolf, Western DPS—downlisted April 1, 2003;
- Gray wolf, Eastern DPS—downlisted April 1, 2003.

However, for many more species, the designation of a DPS increased its protection status, by protecting a group, even though the species as a whole was not covered by the Act. Examples of DPS designations resulting in more protection follow:

³⁶ See *Humane Society of the United States v. Kempthorne*, 579 F. Supp. 2d 7 (D.D.C. 2008) (vacating final rule that designated and delisted the Great Lakes DPS).

³⁷ Three lawsuits challenged this final rule: two in the District Court of Idaho and one in the District Court of Montana. The Montana court vacated the DPS designation. *Greater Yellowstone Coalition v. Servheen*, 672 F. Supp. 2d 1105 (D. Mont. 2009). The decision is being appealed by FWS. One Idaho case was stayed pending that appeal: *Aland v. Kempthorne*, No. CV08-24-S-EJL, 2010 WL 3735490 (D. Idaho September 16, 2010). See also *Western Watersheds Project v. Servheen*, No. 07-CV-243-EJL (D. Idaho).

³⁸ The Northern Rockies DPS was later vacated by FWS. See *Defenders of Wildlife v. Hall*, 08-cv-56-M-DWM (D. Mont. filed September 22, 2008).

³⁹ 74 *Federal Register* 15069 (April 2, 2009). FWS proposed designating the same DPS and delisting it on May 5, 2011. 76 *Federal Register* 26086.

⁴⁰ 74 *Federal Register* 15123 (April 2, 2009). This rule was reissued pursuant to P.L. 112-10. 76 *Federal Register* 25590 (May 5, 2011).

⁴¹ *Humane Society of the United States v. Kempthorne*, 579 F. Supp. 2d 7 (D.D.C. 2008).

- California bighorn sheep, Sierra Nevada DPS—listed as endangered January 3, 2000;
- Canada lynx, contiguous U.S. DPS—listed as threatened March 24, 2000;
- Atlantic salmon, Gulf of Maine DPS—listed as endangered November 17, 2000;
- Dusky gopher frog, Mississippi DPS—listed as endangered December 4, 2001;
- Pygmy rabbit, Columbia Basin DPS—listed as endangered March 5, 2003;
- California tiger salamander, Sonoma County DPS—listed as endangered March 19, 2003;
- Northern sea otter, Southwest Alaska DPS—listed as threatened August 9, 2005.

A DPS is treated like a species under the Act; therefore, special rules may also be created for threatened DPSs.

Gray Wolf Listing

The history of gray wolf protection is interconnected with the history of the ESA. Wolf protection began at the nascency of the ESA, when it was one of the first mammals covered under the precursor to the ESA, the Endangered Species *Protection* Act of 1966.⁴²

At the start, the ESA protected four subspecies of gray wolf: the Mexican wolf, the northern Rocky Mountain wolf, the eastern timber wolf, and the Texas gray wolf.⁴³ In 1978, the gray wolf was relisted at the *species* level as endangered throughout the lower 48 states, except for Minnesota, where it was listed as threatened.⁴⁴ As a result of regulatory listings and court nullifications described below, wolves in the United States have been listed in all of the available categories for a vertebrate species: (1) never listed (Alaska); (2) delisted (in certain DPSs); (3) experimental populations (Southwest; Yellowstone and Central Idaho); (4) threatened (Minnesota); and (5) endangered (every wolf in the lower 48 states that was not in a DPS, experimental population, or in Minnesota).

Gray Wolf Recovery Plans

Consistent with the ESA requirement of developing recovery plans for listed species, FWS developed recovery plans for the gray wolf based on its early listing at the subspecies level—the eastern timber wolf, the Mexican wolf, and the northern Rocky Mountain wolf. The eastern timber wolf recovery plan was issued in 1978, and revised in 1992.⁴⁵ The recovery goals were two-fold: the population in Minnesota must be stable or growing; and a second population of at

⁴² P.L. 89-669, 80 Stat. 926 (October 15, 1966). The timber wolf and the red wolf were listed under this precursor to the ESA as being endangered of extinction. 32 *Federal Register* 4001 (March 11, 1967).

⁴³ See 43 *Federal Register* 9607 (March 9, 1978).

⁴⁴ *Id.*

⁴⁵ A copy of the 1992 Eastern Timber Wolf Recovery Plan is available at http://ecos.fws.gov/docs/recovery_plans/1992/920131.pdf.

least 100 wolves must be sustained for at least five years. If that population was isolated from the Minnesota population, a population of at least 200 wolves was required.

In 1982, FWS completed the recovery plan for the Mexican wolf.⁴⁶ The recovery goal was a viable and self-sustaining population of at least 100 wolves in a 5,000 square mile area within the Mexican wolf's historic range.

FWS prepared a recovery plan for the gray wolf in the Northern Rocky Mountains in 1987.⁴⁷ However, the 1987 recovery goal was later deemed insufficient. It was modified through scientific inquiry and peer review in 1994 and reaffirmed in 2002.⁴⁸ The Northern Rocky Mountain recovery goal is a connected three-state wolf population that never goes below 30 breeding pairs and 300 wolves. Connectivity is a key part of population recovery, as it ensures adequate genetic exchange for the long-term viability of the species. When wolves are delisted and state management fully replaces federal management, FWS has determined that the recovery goal is being maintained when each state (Montana, Idaho, and Wyoming) maintains at least 15 breeding pairs and 150 wolves.⁴⁹

Experimental Populations of Gray Wolves

Despite near-eradication of the wolf in the lower 48 states, some suitable habitat in the wolf's historic range survived, though in a highly modified form. At the end of the 20th century, FWS planned to reintroduce the wolf to parts of its historic range, using the Ex Pop provisions of the ESA.

Yellowstone and Central Idaho Ex Pops

No reintroduction was more controversial than that in the greater Yellowstone ecosystem, where all other large vertebrates were still present, and where many scientists agreed that elk populations—a favorite wolf prey—had reached harmful levels. In 1995 and 1996 FWS released 66 gray wolves from Canada in Yellowstone and central Idaho. (See **Figure 1** and **Figure 2**.)

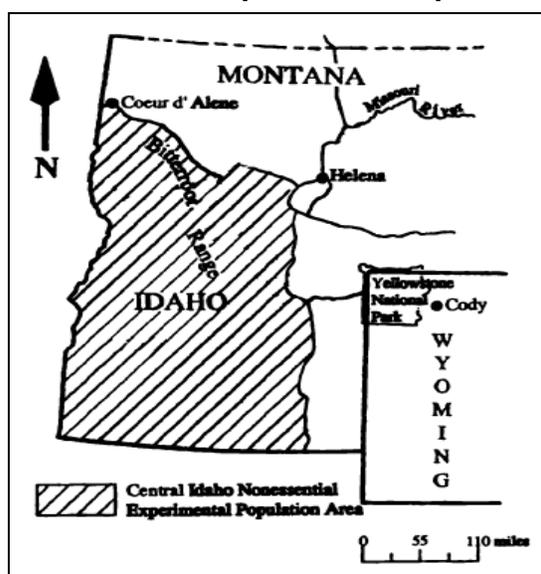
⁴⁶ A copy of the 1982 Mexican Wolf Recovery Plan is available at http://www.fws.gov/southwest/es/mexicanwolf/pdf/Mexican_Wolf_RP_1982.pdf.

⁴⁷ A copy of the 1987 Northern Rocky Mountain Wolf Recovery Plan is available at http://www.fws.gov/montanafieldoffice/Endangered_Species/Recovery_and_Mgmt_Plans/Northern_Rocky_Mountain_Gray_Wolf_Recovery_Plan.pdf. See discussion of the recovery plan in 73 *Federal Register* 15123, 15130-15139 (April 2, 2009). n.b. The Northern Rocky Mountain recovery plan is not based on the distinct population segment of the same name, which had not been designated at that time.

⁴⁸ See 68 *Federal Register* 15804, 15810 (April 1, 2003).

⁴⁹ See FWS Memorandum, *Service review of the 2009 wolf population in the NRM DPS* (April 26, 2010), p. 2, available at <http://www.fws.gov/mountain-prairie/species/mammals/wolf/post-delisting-wolf-monitoring/doc20100428072425.pdf>.

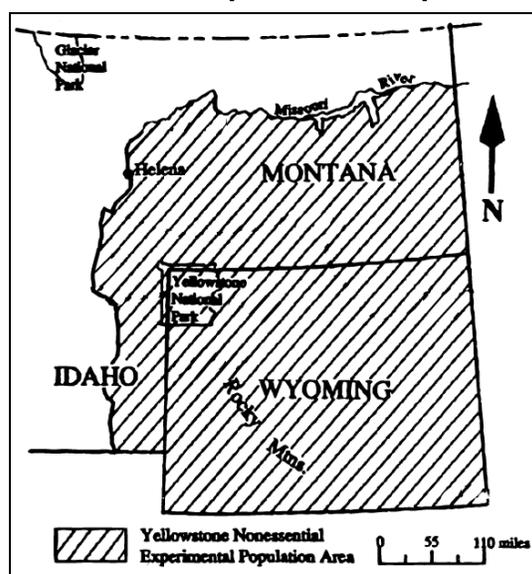
Figure 1. Reintroduction Zone of the Central Idaho Experimental Population



Source: 59 Federal Register 60281 (November 22, 1994), as modified by CRS.

Note: This same area was designated for the population in 2010. 75 Federal Register 65578 (October 26, 2010).

Figure 2. Reintroduction Zone of the Yellowstone Experimental Population



Source: 59 Federal Register 60281 (November 22, 1994), as modified by CRS.

Note: This same area was designated for the population in 2010. 75 Federal Register 65579 (October 26, 2010).

When wolves were returned, the science community was greatly interested in the potential effects from a first-ever return of a major predator to a nearly intact ecosystem. The interest was intense partly because the Yellowstone area was already well studied, with long-term data on many species, including both competitors (e.g., coyotes and, to some extent, grizzlies) and potential prey (e.g., elk, moose, and bison). As scientists had expected, wolves had a profound effect on elk, but there is also evidence of effects that were less predictable—on aspens, cottonwoods, beavers, beetles, mice, red foxes, ravens, and voles, among others.⁵⁰ However, the reintroduction of wolves to Yellowstone was, and still is, fraught with controversy.

Yellowstone and Central Idaho Ex Pop Litigation

While the Northern Rockies gray wolf recovery plan acknowledged that recovery of the species could require reintroducing it into the area around Yellowstone National Park, the decision to do so was controversial. Suit was filed to compel FWS to reintroduce wolves to Yellowstone. However, in 1992, the court ruled that it could not compel FWS to act when Congress had blocked funding for the reintroduction.⁵¹

One legal challenge after the reintroduction was made by a man charged with killing a wolf from the Yellowstone Ex Pop. He argued that he had killed a Canada wolf, which was not a protected

⁵⁰ For an account of some of the changes, and a sense of the excitement in the scientific community, see Jim Robbins, “Lessons from the Wolf,” *Scientific American* (June 2004).

⁵¹ *Defenders of Wildlife v. Lujan*, 792 F. Supp. 834 (D.D.C. 1992) (referring to P.L. 102-154, 105 Stat. 993-94 (1991)).

species. This argument failed. The Ninth Circuit upheld the regulations for the experimental population, holding that once the wolves from Canada were introduced into the park, they became protected under the ESA.⁵²

Another lawsuit argued that because the Yellowstone Ex Pop may interact and breed with the few lone wolves in the area,⁵³ the Ex Pop designation violated the ESA Section 10(j) requirement that experimental populations be “wholly separate geographically from nonexperimental populations of the same species.”⁵⁴ The district court ruled that the Yellowstone population would have to be removed, but was overruled by the Tenth Circuit Court of Appeals.⁵⁵ The appellate court rejected the argument that the legislative history of Ex Pops meant that the experimental population must be separate from every naturally occurring individual animal. The court deferred to the DOI management plan for the reintroduction, finding that it did not conflict with the statute.

Another claim disputed FWS management of the wolves. A rancher argued the agency failed to control wolves that were preying on livestock. After FWS killed three wolves, including the lead male wolf of the offending pack, no more depredations were found. The court dismissed the claims on procedural grounds.⁵⁶

The District Court of Montana is considering whether Ex Pops in Yellowstone and central Idaho no longer fit the statutory definition of an Ex Pop because they are no longer geographically isolated. The court has suggested that their Ex Pop status would end without further regulatory action.⁵⁷ If this is upheld, the wolves in that Ex Pop (which consists only of Wyoming wolves as of May 5, 2011) would become part of the lower 48 states’ general population and be classified as endangered.

FWS has argued in its brief to the court that an Ex Pop designation can be removed only through rulemaking or other regulatory action. Other defendant-intervenors have taken the same position. In its brief, Safari Club International, a defendant-intervenor, suggested that if the court is right, it would have a chilling effect on the Ex Pop program. Deregulation of Ex Pops should occur only when the species is no longer endangered, according to Safari Club International, otherwise reintroduction of Ex Pops ultimately would lead to larger territories occupied by endangered species, and would be a disincentive for states, tribes, and other parties to accept Ex Pops on their land. The plaintiffs argued that the ESA’s definition of Ex Pop⁵⁸ prohibits FWS from managing a species as experimental once it is no longer wholly separate geographically from other populations. FWS has also filed a motion to have the action dismissed, in light of the reissuance of the 2009 rule as required by P.L. 112-10, § 1713. If granted, the questions raised by the District Court of Montana would remain unanswered.

⁵² *United States v. McKittrick*, 142 F.3d 1170 (9th Cir. 1998).

⁵³ The lone wolves may have been remaining wolves that survived extermination, feral wolves, or wolves naturally dispersing from farther north.

⁵⁴ ESA § 10(j)(1); 16 U.S.C. § 1539(j)(1).

⁵⁵ *Wyoming Farm Bureau Federation v. Babbitt*, 199 F.3d 1224 (10th Cir. 2000).

⁵⁶ *Gordon v. Norton*, 322 F.3d 1213 (10th Cir. 2003).

⁵⁷ *Defenders of Wildlife v. Gould*, CV-08-14-M-DWM (D. Mont. January 28, 2011) (Order to Show Cause).

⁵⁸ 16 U.S.C. § 1539(j): “the term ‘experimental population’ means any population ... authorized by the Secretary for release ... but only when, and at such times as, the population is wholly separate geographically from nonexperimental populations of the same species.”

Blue Range Ex Pop

Wolves also had been extirpated in the Southwest. FWS recognized a separate subspecies, the Mexican wolf (*Canis lupus baileyi*), which was found in very low numbers in Mexico. After a cooperative and successful captive breeding program of wolves obtained from Mexico, reintroduction was begun in 1998, in an area centered in the Apache National Forest in Arizona and the Gila National Forest in New Mexico. In February 2010 FWS announced that the population of Mexican gray wolves totaled 42, the lowest since 2002.⁵⁹ It was a drop from the previous year's total of 52, according to the agency. In January 2011 the population totaled 50.⁶⁰

Blue Range Litigation

Reintroduction of the wolf to the Southwest was no less controversial than that in the Northern Rockies. Ranchers sued, claiming the action violated the National Environmental Policy Act (NEPA), as well as the ESA. The District Court of New Mexico found for FWS, even though livestock owners and FWS had different estimates as to the impact of the wolves on domesticated stock.⁶¹

Even after the Southwest wolf reintroduction, the area remains a center of intense public controversy. Environmentalists sued FWS for not acting to modify the reintroduction regulations.⁶² The action was dismissed as moot. A different suit brought by ranchers argued that the reintroduction violated the ESA and NEPA in part because the wolves were hybrids. The suit was dismissed.⁶³ In 2010 the Center for Biological Diversity filed suit to force the listing of the Mexican gray wolf as either an endangered species or a DPS.⁶⁴ If successful, the suit would end the Ex Pop status of the Mexican gray wolf and the exceptions that allow *takes* of those wolves.

Gray Wolf DPSs

The gray wolf was originally listed at the species level as threatened in Minnesota, and endangered in the remainder of the lower 48 states. Since the issuance of the DPS Policy, FWS has pursued dividing the gray wolf into DPSs.⁶⁵ DPSs supplant Ex Pops, but when a DPS has been nullified, FWS returns the population to its Ex Pop status. All DPS designations were challenged in federal court, and each court rejected FWS's action, leading to each rule being withdrawn.

⁵⁹ FWS Southwest Region Press Release: "2009 Mexican Wolf Population Survey Complete" (February 5, 2010), available at <http://www.fws.gov/southwest/docs/WolffinalPopCount2009NewsReleaseFeb52010.pdf>.

⁶⁰ FWS, Blue Range Wolf Reintroduction Area Monthly Project Updates, available at http://www.fws.gov/southwest/es/mexicanwolf/BRWRP_notes.cfm.

⁶¹ *New Mexico Cattle Growers v. U.S. Fish and Wildlife Service*, 1999 WL 34797509 (D.N.M. 1999).

⁶² *Center for Biological Diversity v. Kempthorne*, 498 F. Supp. 2d 293 (D.D.C. 2007).

⁶³ *Coalition of Arizona/New Mexico Counties for Stable Economic Growth v. U.S. Fish and Wildlife Service*, 1:03-cv-00508 (D.N.M. January 31, 2005). That suit had also sought release of the location of a den of wolf pups.

⁶⁴ *Center for Biological Diversity v. Salazar* (D.D.C. filed January 2010).

⁶⁵ Efforts to name the wolves of the Alexander Archipelago in Alaska as threatened or endangered have not succeeded. See *Biodiversity Legal Foundation v. Babbitt*, 943 F. Supp. 23 (D.D.C. 1996) (remanding the decision not to list the Alexander Archipelago gray wolf to DOI, as its decision was not based solely on the best scientific and commercial data); 62 *Federal Register* 46709 (September 4, 1997) (upon remand, no finding that the wolf was threatened).

2003 Western, Eastern, and Southwestern DPSs

In 2003, FWS divided gray wolves into three DPSs, Western, Eastern and Southwestern, and downlisted the Eastern and Western DPSs from endangered to threatened.⁶⁶ At the same time, FWS removed gray wolves from ESA protection in all or parts of 16 southern and eastern states where they did not occur historically. Wolves in the Southwest remained listed as endangered.

Western, Eastern, and Southwestern DPS Litigation

The 2003 rule was challenged in two federal district courts. The plaintiffs before the District Court of Oregon disputed how the DPS ranges were designated. They argued that FWS considered only where the wolves were currently located when determining their viability. This allowed FWS to count wolves only in the areas they occupied. Despite finding that areas outside of the wolves' current range were suitable habitat, although no wolves were present, FWS did not include those areas in defining the DPS ranges. The plaintiffs argued that this method was contrary to the ESA and prior case law, because the Act requires that a species is endangered if it is at risk of extinction in "all or a significant portion of its range." In 2005, the court agreed that FWS had violated the ESA by equating the wolves' current range with a significant portion of its range.⁶⁷ The court vacated the rule, effectively eliminating the three DPSs and reinstating their protected status.

The other suit was before the District Court for Vermont, which issued a decision eight months after the Oregon court. The plaintiffs in Vermont challenged the rule's final designation of one Eastern DPS, when two DPSs had been proposed for that area: a Northeast DPS and a Western Great Lakes DPS. In 2005, the court found procedural flaws and also that FWS failed to consider significant portion of its range in a way consistent with the ESA.⁶⁸ The court criticized FWS's method before vacating the rule: "The FWS simply cannot downlist or delist an area that it previously determined warrants an endangered listing because it 'lumps together' a core population with a low to non-existent population outside of the core area."⁶⁹

2007 Western Great Lakes DPS and 2008 Northern Rocky Mountain DPS

After the 2003 DPS rulemaking was nullified in 2005, FWS proposed two other gray wolf DPSs: Northern Rocky Mountain and Western Great Lakes.⁷⁰ In 2007, the Western Great Lakes gray

⁶⁶ 68 *Federal Register* 15803 (April 1, 2003). This rule was vacated by court order. See *Defenders of Wildlife v. U.S. Dept. of the Interior*, 354 F. Supp. 2d 1156 (D. Or. 2005).

⁶⁷ *Defenders of Wildlife v. U.S. Dept. of the Interior*, 354 F. Supp. 2d 1156 (D. Or. 2005).

⁶⁸ *National Wildlife Federation v. Norton*, 386 F. Supp. 2d 553 (D. Vt. 2005). FWS changed its interpretation of a *significant portion of its range*, and then withdrew that interpretation without providing another. See DOI Solicitor's Opinion, M-37013 (March 16, 2007), available at <http://www.doi.gov/solicitor/M37013.pdf>; Memorandum of the Solicitor, *Withdrawal of M-37013—The Meaning of "In Danger of Extinction Throughout All or a Significant Portion of its Range"*, M-37024 (May 4, 2011), available online at <http://www.doi.gov/solicitor/opinions/M-37024.pdf>.

⁶⁹ *National Wildlife Federation v. Norton*, 386 F. Supp. 2d at 556.

⁷⁰ The Northern Rocky Mountain DPS includes Washington, Oregon, Utah, Montana, Idaho, and Wyoming; the Western Great Lakes DPS includes North Dakota, South Dakota, Minnesota, Wisconsin, and Michigan.

wolf population was declared a DPS and delisted in the same notice.⁷¹ That final rule was vacated by the District Court for the District of Columbia in 2008.⁷² On the same date as the Western Great Lakes rule was issued, FWS *proposed* designating a Northern Rocky Mountain gray wolf DPS and delisting its population (see **Figure 3**), except for the Wyoming population because Wyoming's state laws were found to provide insufficient protection for the wolf.⁷³ In the 2008 final rule, FWS designated and delisted Northern Rocky Mountain DPS, including Wyoming.⁷⁴

2007 Western Great Lakes DPS Litigation

In September 2008, the District Court for the District of Columbia vacated the final rule that designated and delisted the Western Great Lakes DPS.⁷⁵ Unlike the holding in the Northern Rockies DPS case (below), this decision focused on the procedure, not the science, behind the rule. The plaintiffs claimed that FWS had violated the Act by issuing the designation and delisting simultaneously, while FWS argued that the ESA “unambiguously” supported its process. In light of the Act’s purpose in conserving species, the court found the ESA was not unambiguous. The court remanded the action to the agency to find a “reasonable explanation” for its interpretation that the ESA supports a designate and delist rule.⁷⁶ Instead, in December 2008, FWS reinstated the wolves in the area as either threatened (in Minnesota) or endangered.⁷⁷

2008 Northern Rocky Mountain DPS Litigation

In July 2008, the District Court for the District of Montana issued a preliminary injunction halting the effectiveness of the FWS delisting of the Northern Rockies DPS.⁷⁸ The delisting had found that Wyoming, Idaho, and Montana had adequate wildlife management programs to support populations above recovery levels.⁷⁹ However, the court rejected FWS’s contention that there was genetic exchange between the Yellowstone experimental population and other packs in the Northern Rockies. (**Figure 3** shows the distribution of wolf packs in the two areas in 2008.) Without sufficient genetic exchange, the isolated wolf populations would not be genetically diverse enough to avoid inbreeding, and therefore could not be termed *recovered*. The court also found that the states’ management plans did not seem adequate to support wolf recovery levels. The order reinstated the wolf as endangered until final disposition. In September 2008 FWS voluntarily moved to withdraw the rule.⁸⁰ Wolves in that area returned to being nonessential

⁷¹ 72 *Federal Register* 6052 (February 8, 2007).

⁷² *Humane Society of the United States v. Kempthorne*, 579 F. Supp. 2d 7 (D.D.C. 2008).

⁷³ 72 *Federal Register* 6106 (February 8, 2007). In 2006 FWS had found the petition to designate the Northern Rockies DPS and delist that segment was unwarranted, due to Wyoming’s inadequate management plan. 71 *Federal Register* 43410 (August 1, 2006).

⁷⁴ 73 *Federal Register* 10514 (February 27, 2008).

⁷⁵ *Humane Society of the United States v. Kempthorne*, 579 F. Supp. 2d 7 (D.D.C. 2008). As a result of this ruling, wolves in that area were returned to the endangered species list, except for Minnesota wolves, which are listed as threatened.

⁷⁶ *Humane Society of the United States v. Kempthorne*, 579 F. Supp. 2d 7, 20 (D.D.C. 2008).

⁷⁷ 73 *Federal Register* 75356 (December 11, 2008).

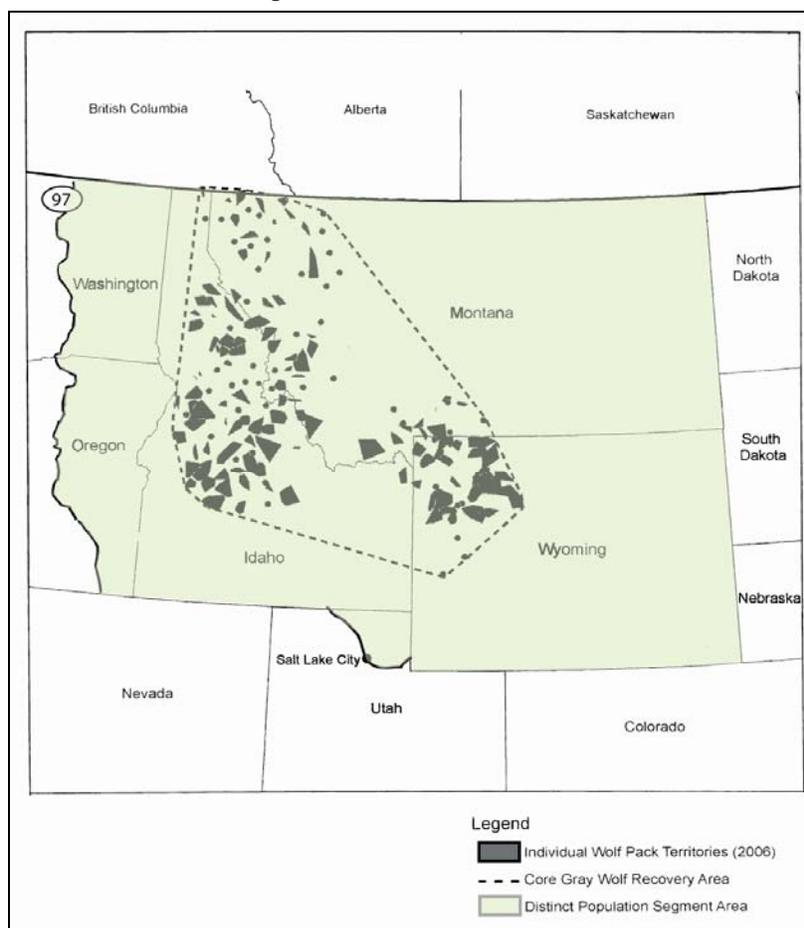
⁷⁸ *Defenders of Wildlife v. Hall*, 08-cv-56-M-DWM, 2008 U.S. Dist. LEXIS 55071 (D. Mont. July 18, 2008).

⁷⁹ 73 *Federal Register* 10514 (February 27, 2008).

⁸⁰ *Defenders of Wildlife v. Hall*, 08-cv-56-M-DWM (D. Mont. filed September 22, 2008).

experimental populations with special regulations allowing takes.⁸¹ (See below at “Section 4(d) Rules for Gray Wolves.”)

Figure 3. Northern Rocky Mountain Gray Wolf DPS Area in 2008
Showing Individual Wolf Pack Territories



Source: 73 *Federal Register* 10517 (February 27, 2008).

Note: This distribution of territories can be expected to change over time.

2009 Western Great Lakes and Northern Rocky Mountain DPSs

In April 2009, FWS designated wolves in the Western Great Lakes and the Northern Rockies as DPSs and delisted them.⁸² Once again, an exception was made for the wolves of Wyoming. The

⁸¹ 73 *Federal Register* 75356 (December 11, 2008).

⁸² 74 *Federal Register* 15069 (April 2, 2009) (Western Great Lakes); 74 *Federal Register* 15123 (April 2, 2009) (Northern Rockies). In January 2009 FWS had announced it was delisting the DPSs. See FWS Press Release, “Service Removes Western Great Lakes, Portion of Northern Rocky Mountain Gray Wolf Populations from Endangered Species List” (January 14, 2009), available at <http://www.fws.gov/news/NewsReleases>. But the January rulemaking was halted by the new administration. See Rahm Emanuel, *Memorandum for the Heads of Executive Departments and Agencies* (January 20, 2009), available at <http://ombwatch.org/regs/midnightregfreezememo.pdf>.

Wyoming population was not delisted because FWS found that Wyoming's regulatory framework would not maintain the targeted population goals to ensure genetic health for a viable population in the foreseeable future.⁸³

2009 Western Great Lakes DPS Litigation

Suit was filed regarding the Western Great Lakes delisting, and was settled in September 2009.⁸⁴ FWS withdrew the 2009 rule and reinstated the gray wolf as endangered throughout most of the area and as threatened in Minnesota.⁸⁵

2009 Northern Rocky Mountain DPS Litigation

In August 2010, the District Court of Montana declared the April 2009 Northern Rocky Mountain rule invalid.⁸⁶ The court held that segregating the Wyoming wolves from the rest of the Northern Rockies DPS violated the ESA by creating a regulatory taxonomic category not allowed by the Act. The ESA does not allow listing (or delisting) *part* of a DPS, such as wolves in Wyoming, according to the court.⁸⁷ The wolves were returned to their status as an experimental population and again treated as threatened.⁸⁸

The State of Wyoming sued FWS for finding its regulatory plan did not meet recovery goals for the wolf. In November 2010, the District Court for Wyoming held that FWS had acted arbitrarily and capriciously by requiring the Wyoming plan to designate all of the state as trophy-game area, meaning a permit would be required to kill a wolf.⁸⁹ Instead, the state plan designated approximately 90% of the state as predator areas (not including National Parks), meaning no permit was required to kill a wolf. The Wyoming plan also required the state to maintain no fewer than seven packs outside of National Parks. The court remanded to FWS to see if the Wyoming plan met the federal recovery goals of 15 packs statewide, as well as genetic diversity.

Another lawsuit filed in the District Court of Montana on behalf of Washington cattle ranchers claimed FWS has failed to conduct five-year reviews of the gray wolf as required under Section 1533(c)(2).⁹⁰ Because five-year reviews are required to see if delisting or downlisting is appropriate, it is possible that a court could find that FWS has conducted such a review pursuant to the two rulemakings to delist the wolf, a process that requires "conducting a review of the status of the species."⁹¹ If successful, the suit would force FWS to perform a five-year review, perhaps taking resources away from its efforts to delist the wolf. On May 5, 2011, FWS

⁸³ 74 *Federal Register* at 15125.

⁸⁴ *Humane Society of the United States v. Salazar*, 1:09-CV-1092-PLF (D.D.C.).

⁸⁵ 74 *Federal Register* 47483 (September 16, 2009).

⁸⁶ *Defenders of Wildlife v. Salazar*, 729 F. Supp. 2d 1207 (D. Mont. 2010).

⁸⁷ *Defenders of Wildlife v. Salazar*, 729 F. Supp. 2d 1207 (D. Mont. 2010).

⁸⁸ 75 *Federal Register* 65574 (October 26, 2010).

⁸⁹ *Wyoming v. U.S. Department of the Interior*, No. 09-CV-118J, 2010 U.S. Dist. LEXIS 122829 (D. Wyo. November 18, 2010).

⁹⁰ *Washington Cattlemen's Association v. Salazar*, 11-cv-03019 (E.D. Wash. *complaint filed* February 16, 2011).

⁹¹ 16 U.S.C. § 1533(b)(1)(A).

announced it would conduct a status review of the gray wolf, which could render the lawsuit moot.⁹²

Conditional Settlement Reached and Then Halted

In March 2011 FWS announced it had reached a settlement agreement with many of the plaintiffs that had challenged the 2009 Northern Rocky Mountain DPS rule.⁹³ However, the District Court of Montana rejected a motion needed to implement the agreement,⁹⁴ and legislation by the 112th Congress mooted its necessity. (See “Legislation Directing Delisting of the Northern Rocky Mountain DPS” below.) However, even if enacted, the agreement would not have marked the end of litigation in the area: four plaintiffs refused to participate in the agreement, and, of the defendant-intervenors, only Montana indicated it supported the action.⁹⁵

The agreement depended on the District Court of Montana partially revoking the stay put in place while its August 2010 decision was appealed,⁹⁶ thus allowing Idaho and Montana to resume management of wolves in their state pursuant to plans approved by the FWS. The court held that it lacked authority to take that step because doing so would allow a protected species to be killed in violation of the ESA. If the settlement had been implemented, both Montana and Idaho could allow killing wolves, even though under the ESA, those wolves were protected species. In addition to lacking legal authority, the court also found that revoking the stay would violate notions of equity. The non-settling plaintiffs and the defendant-intervenors who had not signed on to the agreement would not be able to continue their legal challenges.

The court noted weaknesses in the agreement. In addition to binding non-settling plaintiffs to a conclusion they opposed, the court found that although FWS had agreed to withdraw its Solicitor’s Opinion regarding the meaning of *significant portion of its range*,⁹⁷ it had not agreed to issue a new opinion.⁹⁸ Also, the additional monitoring FWS would perform under the agreement would not take place for three years, leaving the status of the wolf unknown during that time.

⁹² 76 *Federal Register* 26086 (May 5, 2011).

⁹³ *Defenders of Wildlife v. Salazar*, CV-09-77-M-DWM (D. Mont. March 18, 2011) (Motion to Partially Stay August 5, 2010 Judgment). The settling plaintiffs are: Defenders of Wildlife, Natural Resources Defense Council, Sierra Club, Center for Biological Diversity, Hells Canyon Preservation Council, Greater Yellowstone Coalition, Jackson Hole Conservation Alliance, Oregon Wild, Cascadia Wildlands Project, and Wildlands Network. Plaintiffs that did not participate in the settlement include Humane Society of the United States, Friends of the Clearwater, Alliance for the Wild Rockies, and Western Watersheds Project.

⁹⁴ *Defenders of Wildlife v. Salazar*, 09-cv-77-DWM (D. Mont. April 9, 2011).

⁹⁵ Safari Club International took no position as of the date the motion was filed. Other groups did not respond by that date: Sportsmen for Fish and Wildlife, the National Rifle Association, the Montana Farm Bureau Federation, the Idaho Farm Bureau Federation, the Mountain States Legal Foundation, and the Rocky Mountain Elk Foundation.

⁹⁶ *Defenders of Wildlife v. Salazar*, 729 F. Supp. 2d 1207 (D. Mont. 2010) (see above).

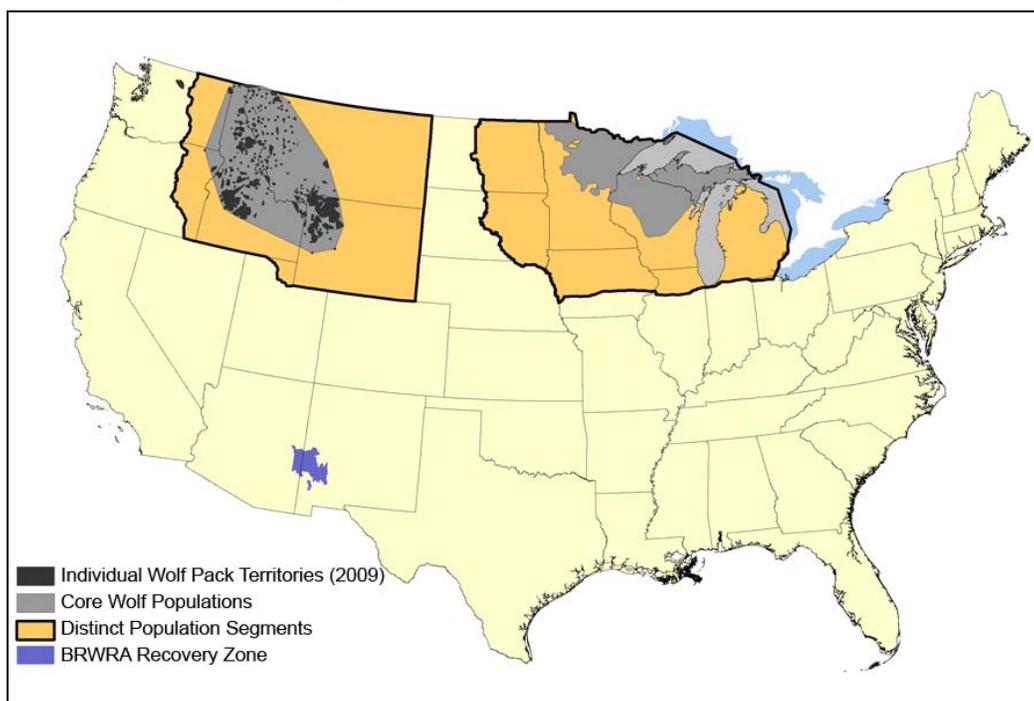
⁹⁷ Memorandum of the Solicitor to FWS Director, *The Meaning of “In Danger of Extinction Throughout All or a Significant Portion of its Range,”* M-37013 (March 16, 2007), available at <http://www.doi.gov/solicitor/opinions/M-37013.pdf>.

⁹⁸ This turns out to be exactly what happened. See Memorandum of the Solicitor, *Withdrawal of M-37013—The Meaning of “In Danger of Extinction Throughout All or a Significant Portion of its Range,”* M-37024 (May 4, 2011), available online at <http://www.doi.gov/solicitor/opinions/M-37024.pdf>.

Comparative Wolf Density Before the Reissuance of the April 2009 Rule

The Northern Rocky Mountain DPS and the Western Great Lakes DPS have charted parallel regulatory courses, and both populations have grown over the past two decades. However, data show that in terms of wolves per square mile, wolf density is much greater in the Western Great Lakes than in the Northern Rocky Mountains. Despite this, Congress has introduced more bills targeting delisting Northern Rocky Mountain wolves than those in the Great Lakes area, including the bill enacted as P.L. 112-10.

Figure 4. Wolf Density as of 2009



Source: Congressional Research Service, based on 2009 data provided by FWS and Montana Fish, Wildlife and Parks.

Note: The DPSs shown in this map were nullified, although the Northern Rocky Mountain DPS was reinstated as directed by P.L. 112-10, § 1713. Maps of wolf pack territories for the Western Great Lakes and the Blue Range are not available. BRWRA is an abbreviation for Blue Range Wolf Recovery Area.

CRS calculated the areas shown as “Core Wolf Populations” in **Figure 4**, based upon data provided by FWS and Montana Fish, Wildlife and Parks. These data showed that the Core Wolf Population area in the Western Great Lakes is approximately 78,775 sq. miles and the Northern Rocky Mountains Core Wolf Population area is about 134,697 sq. miles. Based on 2010 wolf populations, the Western Great Lakes has 4,169 wolves in 78,775 sq. miles, or approximately 53 wolves per 1,000 sq. miles. The Northern Rocky Mountains DPS has 1,651 wolves in about 134,697 sq. miles, making for a less dense population of 12 wolves per 1,000 sq. miles.

2011 Regulatory and Legislative Activity

Legislation Directing Delisting of Northern Rocky Mountain DPS: P.L. 112-10, § 1713.

Following successive court orders invalidating FWS's delisting rules, and in light of increasing populations of wolves in some parts of the country, the 111th Congress began to consider legislative options to exclude the wolf from the protections of the ESA. The 112th Congress passed the first law to delist a species. The Full-Year Appropriations Act of 2011, P.L. 112-10, § 1713, directs FWS to delist the gray wolf in Montana, Idaho, eastern Washington, eastern Oregon, and north-central Utah, but leaves the wolves in the remaining lower 48 states federally protected as either threatened or endangered. Enactment of P.L. 112-10, § 1713 was significant because legislation to delist species rarely had been proposed and never had been successful.⁹⁹

Some have argued that P.L. 112-10 is a tipping point in species protection—that politics and not science will dictate species protection in the future. However, Section 1713 is not a blanket delisting, but a direction to re-release the April 2009 rule in which FWS determined that the best available science supported delisting those wolves. As referenced above, however, a federal court found FWS had violated the ESA in making this determination.¹⁰⁰ P.L. 112-10 bars judicial review of the rule, but still allows regulatory actions, such as delisting in Wyoming, or relisting of the DPS, should the wolf's status change. Section 1713 states that it does not alter the November 2010 Wyoming District Court ruling that remanded Wyoming's management plan to FWS. FWS reissued the 2009 rule on May 5, 2011.¹⁰¹

Proposed Gray Wolf Legislation

Other bills still pending in the 112th Congress would restrict federal protection of the gray wolf. Those addressing the wolves of the West may not be advanced in light of P.L. 112-10. For example, Congress apparently chose P.L. 112-10, § 1713 over the nearly identical version in S. 321 (Baucus), which would have given the 2009 rule the force of law rather than regulation. Additionally, H.R. 510 (Rehberg), which allows state regulation of wolves in Idaho and Montana, appears mooted by that law.

⁹⁹ All examples were from the 100th Congress and were proposed amendments to the Endangered Species Act Amendments of 1987. They were not passed. See 133 Cong. Rec. H11248 (proposed amendment to prevent the Concho water snake from being considered a listed species); 133 Cong. Rec. H11248 (proposed amendment to prevent the gray wolf from being considered a listed species); and 133 Cong. Rec. H11617 (proposed amendment to prevent the leopard darter minnow from being considered a listed species). Also, for details of the 48 species that had been delisted before passage of § 1713, see http://ecos.fws.gov/tess_public/pub/delistingReport.jsp.

¹⁰⁰ *Defenders of Wildlife v. Salazar*, 729 F. Supp. 2d 1207 (D. Mont. 2010).

¹⁰¹ 76 *Federal Register* 25590 (May 5, 2011).

Other bills do not appear moot. For example, H.R. 838 (Kline) would eliminate federal protection of wolves in the Western Great Lakes area, proposing: “Any wolf in Minnesota, Wisconsin, or Michigan shall not be treated under any status of the Endangered Species Act of 1973 (16 U.S.C. §§ 1531 et seq.), including as an endangered species, a threatened species, an essential experimental population, or a nonessential experimental population.”¹⁰² H.R. 509 (Rehberg) and S. 249 (Hatch) would amend the ESA so the Act would not apply to the gray wolf. Those two bills would affect all gray wolves, including the populations in the Southwest as well as the Western Great Lakes and Northern Rocky Mountain areas.

After the delisting directed by P.L. 112-10 went into effect, Representative Candice S. Miller introduced H.R. 1819 which would give states management authority over wolves provided that specified population levels were maintained. H.R. 1819 addresses all three gray wolf¹⁰³ population centers, the Northern Rockies, the Western Great Lakes, and the Southwest. For each population, if the numbers of wolves dip below a statutorily protected amount, the Secretary of the Interior would be authorized to treat wolves as protected for at least two years after reestablishing the targeted number of wolves. Under H.R. 1819, population goals would not be based on breeding pairs but on individuals. This criterion is not as clearly related to adequate genetic diversity and reproductive capacity, and might arguably be more difficult to measure than the number of breeding pairs.¹⁰⁴

Proposed Rulemaking: Redefining Populations, Species, and Range

On May 5, 2011, in addition to reissuing the Northern Rocky Mountain DPS rule, FWS proposed changes to gray wolf protection. FWS proposed to do the following: designate the Western Great Lakes as a DPS and delist that DPS; revise the gray wolves’ historic range by eliminating parts or all of 29 eastern states; initiate a five-year review for the gray wolf; initiate a status review of the gray wolf in the Pacific Northwest; initiate a status review of the Mexican wolf in the Southwest and Mexico; and recognize a new species of wolf, the eastern wolf (*Canis lycaon*).¹⁰⁵ Some of the proposed actions could lead to further differentiated protection of wolves depending on location. Wolf protection under the proposed rule would be as shown in **Figure 5**.

¹⁰² This language appears to mean that Minnesota, Wisconsin, and Michigan wolves shall not be treated as *protected under* or *covered by* the ESA, but those italicized words are not in the bill. It is not clear how H.R. 838 would affect existing federal protection because of this wording.

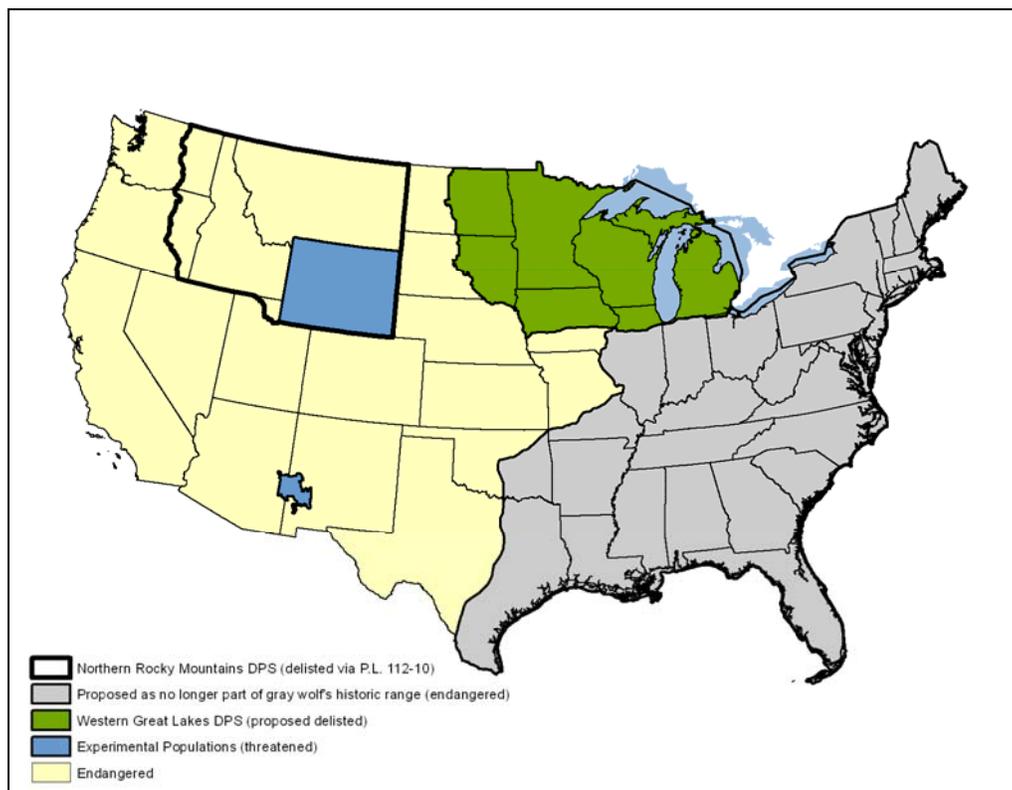
¹⁰³ The bill defines *gray wolf* to include *Canus* [sic] *lycaon*, and *Canus* [sic] *lupus baileyi* (the Mexican wolf).

¹⁰⁴ Lone wolves are often secretive and hide to avoid attack by resident packs.

¹⁰⁵ 76 *Federal Register* 26086 (May 5, 2011).

Figure 5. Gray Wolf Protection Proposed by 76 Federal Register 26086

May 5, 2011



Source: Congressional Research Service, compiled from FWS data.

Proposed New Species: The Eastern Wolf

The Eastern DPS designation of the gray wolf was rejected by courts in 2005 and has not been proposed by FWS since then. However, FWS proposed recognizing a new *species* of wolf, the eastern wolf (*Canis lycaon*), using newer methodology in distinguishing among species, which relies in part on DNA.¹⁰⁶ The proposed eastern wolves' historic range would include portions of eastern Canada, the Western Great Lakes, and the northeastern United States.

From a scientific point of view, designating wolves found in the eastern United States as a separate species is not assured. For example, the encyclopedic *Mammal Species of the World* discusses the validity of *Canis lycaon* as a distinct species and concludes that evidence for separation is equivocal.¹⁰⁷ However, it does not currently consider this wolf in the East to be a distinct species. Moreover, the North American consortium of national professionals who manage the Integrated Taxonomic Information System (ITIS, the source considered authoritative on taxonomy and taxonomic validity in the United States and its territories, Mexico, and Canada) currently considers this wolf as a *subspecies* (*Canis lupus lycaon*).¹⁰⁸ The validity debate

¹⁰⁶ 76 *Federal Register* 26086 at 26088-89 (May 5, 2011).

¹⁰⁷ Don E. Wilson & DeeAnn M. Reeder (editors), *Mammal Species of the World. A Taxonomic and Geographic Reference* (3rd ed.), Johns Hopkins University Press: 2005.

¹⁰⁸ The ITIS data base is on-line at <http://www.itis.gov/>.

considers evidence related to mitochondrial DNA, morphology, evidence of hybridization with coyotes, the natural variability of widely distributed species, and the extremely low population densities that make conclusive evidence difficult to obtain.

Designating a new wolf species is likely to be controversial. Based on the results of the status review, petitions to list the species could be filed. However, lawsuits are unlikely until a listing determination is made, or a DPS designated. *Subspecies* designation has been controversial in other cases, but typically it is FWS resisting the change, not making it. For example, multiple petitions have been filed to designate two subspecies of the greater sage grouse, with FWS ultimately rejecting those petitions, finding the science did not support the distinctions.¹⁰⁹ Legal challenges to the science behind the subspecies classifications or DPS designations are not uncommon and can be successful.¹¹⁰ However, they are fact-specific cases in which the court's view of the agency's scientific basis determines the outcome of the case.

The agency is initiating a review of the eastern wolves' status, which could result in listing the eastern wolf under the ESA, either on the FWS's initiative or by petition. Given its status as a proposed new species, the eastern wolf is not protected under the Act, although gray wolves in the eastern half of the United States are listed as threatened (if in Minnesota) or endangered.¹¹¹ If made final, the effect of the scientific reclassification would be delisting wolves that currently enjoy ESA protection.

Listing the eastern wolf as a separate species could affect *gray* wolf protection, even if the gray wolf is entirely delisted by then. The eastern wolf could be found to be endangered—no breeding pairs of eastern wolves are reported outside of the Western Great Lakes area, yet it is expected to have a broad historic range. Then, despite the proposed rule to delist the Western Great Lakes DPS, eastern wolf protection could mean the gray wolf in the Western Great Lakes area might be protected under the ESA provision safeguarding species with similar appearances to listed species.¹¹² After all, FWS only recently determined a distinction between the gray and eastern wolf species, and that distinction requires a DNA test.

Other Status Reviews

In addition to the five-year status review for the gray wolf, and the review of the proposed eastern wolf, FWS proposes two other status reviews in the May 5 notice. FWS plans to consider populations in the Pacific Northwest and the Southwest. These reviews could find wolves in those areas should be appropriately designated as DPSs. Gray wolf protections could be altered

¹⁰⁹ See 68 *Federal Register* 6500 (February 7, 2003) (finding insufficient evidence that the western sage grouse is a subspecies of the greater sage grouse); 69 *Federal Register* 933 (January 7, 2004) (denying petition to list eastern grouse as a subspecies because science did not support the finding); 75 *Federal Register* 13909 (March 23, 2010) (denying petition to list western grouse as a subspecies, finding no genetic evidence supporting a subspecies).

¹¹⁰ *Center for Biological Diversity v. Kempthorne*, CV-07-0038-PHX-MHM (D. Az. March 5, 2008) (holding that the FWS was arbitrary and capricious in finding Sonoran bald eagles were not a DPS); *Institute for Wildlife Protection v. Norton*, 174 Fed. Appx. 363, 2006 WL 536088 (9th Cir. 2006) (holding that finding western sage grouse was not a subspecies was arbitrary and capricious). But see *Center for Biological Diversity v. Badgley*, 335 F.3d 1097 (9th Cir. 2003) (finding that FWS was not arbitrary and capricious in denying petition that the northern goshawk in the western United States was a distinct population).

¹¹¹ As discussed above, FWS has proposed ending those protections.

¹¹² 16 U.S.C. § 1533(e).

population by population. This would be consistent with FWS's statement that it intends to replace the 48-state listing with "more targeted regional units."¹¹³

Proposed Alteration of Historic Range

It is unclear what effect the proposed removal of most of 29 states from the historic range¹¹⁴ of the gray wolf may have on the animal's protection. However, taken in context with FWS's interpretation of *significant portion of its range* within the May 5 proposed rulemaking,¹¹⁵ which is discussed below, it could lead to more delisting.

A species is listed under the ESA depending on its presence in its range.¹¹⁶ However, despite having an enormous range across the continent of North America, the gray wolf has always had different protection status based on its location—for example, the gray wolf has never been protected in Alaska. The FWS website for the gray wolf shows how the listing status varies based on population location.¹¹⁷ In contrast, the listing for the tiger shows it is protected "wherever found," and the polar bear is listed throughout its entire range.¹¹⁸ As discussed earlier in this report, the gray wolf's history is one of designating and delisting DPSs. Eliminating such a great area from the wolves' range could lead to a finding that in its (now much smaller) historic range wolves have a proportionally larger population—perhaps leading to a finding that wolf populations have recovered there. Thus, it could lead to a finding that gray wolves need less protection in the West. Another possibility is that it could lead to a finding that no protection of gray wolves is necessary in the eastern 29 states as FWS has stated that no such population ever existed there.

Interpretation of Significant Portion of Its Range

FWS's interpretation of *significant portion of its range*, announced May 5, 2011, to support its proposed delisting of the Western Great Lakes DPS, appears to support these theories. For the proposed rulemaking, FWS stated that a portion of a species' range is significant if it meets two criteria: (1) it is part of the current range of the species; and (2) it is important to the species' conservation "because it contributes meaningfully to the representation, resiliency, or redundancy of the species."¹¹⁹

It could be argued that the focus on a species' *current range* artificially limits the scope of the ESA listing process. Under that theory, a species is important only where it exists today. Courts rejected a seemingly identical interpretation when it was used in the 2003 designation and revised

¹¹³ 76 *Federal Register* at 26142.

¹¹⁴ The term *historic range* has no definition in regulation or law. However, it is used as that area where a species once existed, even if it no longer occupies that area.

¹¹⁵ On May 4, 2011, the DOI Solicitor withdrew the opinion interpreting significant portion of its range, but did not replace it. Memorandum of the Solicitor, *Withdrawal of M-37013—The Meaning of "In Danger of Extinction Throughout All or a Significant Portion of its Range,"* M-37024 (May 4, 2011), available online at <http://www.doi.gov/solicitor/opinions/M-37024.pdf>.

¹¹⁶ 16 U.S.C. § 1532(6): endangered species "means any species which is in danger of extinction throughout all or a significant portion of its range."

¹¹⁷ See <http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?scode=A00D>.

¹¹⁸ See http://ecos.fws.gov/tess_public/pub/listedAnimals.jsp.

¹¹⁹ 76 *Federal Register* at 26140,

listing of the Western, Eastern, and Southern DPSs, discussed above.¹²⁰ The interpretation essentially eliminates consideration of a species' historic range and restricts the review of a species' health to where it is now present. It could skew the listing process, eliminating consideration of areas where a species once was abundant but now is extirpated.

The second criteria of FWS's May 5 interpretation—that the area contributes meaningfully to the species—further limits the area being considered, and so does not appear to avoid this conflict with court precedent.

Additionally, FWS's interpretation appears to conflict with other portions of the Act, which require consideration of a broader area than a species' *current range*. Under FWS's interpretation, it would be possible to establish critical habitat of a species in an area that FWS says is not part of its range. ESA defines *critical habitat* to include areas not just currently occupied by the species at the time of listing, but also “specific areas *outside the geographical area occupied by the species* at the time it is listed ... upon a determination by the Secretary that such areas are essential for the conservation of the species.”¹²¹

The interpretation also may be seen as inconsistent with the statutory requirement that listing be based in part on the “present or threatened destruction, modification, or curtailment of its habitat or range.”¹²² If a species has already been chased out of damaged habitat, evaluation of its presence in only its current range may seem to restrict consideration of this factor.

¹²⁰ See *Defenders of Wildlife v. U.S. Dept. of the Interior*, 354 F. Supp. 2d 1156 (D. Or. 2005); *National Wildlife Federation v. Norton*, 386 F. Supp. 2d 553 (D. Vt. 2005).

¹²¹ 16 U.S.C. § 1532(5)(A) (emphasis added).

¹²² 16 U.S.C. § 1533(a)(1)(A).

Appendix.

Section 4(d) Rules for Gray Wolves

According to FWS, Section 4(d) rules are intended to reduce conflicts between the provisions of the Act and needs of people near the areas occupied by the species. Special rules have been in effect for the threatened gray wolves in Minnesota for many years, and were extended to gray wolves in other states, when and where the wolf was downlisted. Under the rule for Minnesota, individual “wolves that have preyed on domestic animals can be ... killed by designated government agents.”¹²³ FWS asserts that this rule avoids “even larger numbers of wolves being killed by private citizens who might otherwise take wolf control into their own hands.”¹²⁴

In 2003 as part of the rulemaking that was vacated, FWS issued special rules for two DPSs: Eastern and Western. The special rules would have allowed individuals to kill Western DPS wolves in the act of attacking livestock on private land, and to harass wolves near livestock. Permits to kill wolves could also be issued to landowners who showed wolves routinely were present and formed a significant risk to livestock. FWS said that, as in Minnesota, the rule would “increase human tolerance of wolves in order to enhance the survival and recovery of the wolf population.”¹²⁵ Michigan and Wisconsin citizens would be able to kill any wolf within one mile of killed livestock, and in other Eastern states beside Minnesota, any lethal measures could be used within four miles of such a site.¹²⁶ This rule was vacated, as discussed in “2003 Western, Eastern, and Southwestern DPS Litigation.” When FWS settled the case challenging the 2009 delisting of the Western Great Lakes DPS, the special rule was put back into effect.¹²⁷

Section 4(d) Rules for Yellowstone and Idaho Experimental Populations

In 2005 after FWS found that the wolf population had exceeded its minimum recovery goals of 30 breeding pairs for Yellowstone and Central Idaho, it issued a rule to manage wolves where they had an *unacceptable impact* on ungulate populations.¹²⁸ This 2005 Rule modified the provisions put in effect when the wolves were first introduced, which stated that “wolves could not be deliberately killed solely to resolve predation conflicts with big game.”¹²⁹ When the 2009

¹²³ See FWS Western Region, *Little Known But Important Features of the Endangered Species Act*, online at <http://www.fws.gov/pacific/news/grizzly/esafacts.htm>.

¹²⁴ *Id.* See 50 C.F.R. § 17.40(d) for the rule.

¹²⁵ 68 *Federal Register* at 15864.

¹²⁶ 68 *Federal Register* at 15868.

¹²⁷ 74 *Federal Register* 47483 (September 16, 2009).

¹²⁸ 70 *Federal Register* 1285 (January 6, 2005) (hereinafter the “2005 Rule”). *Unacceptable impact* was defined as “State or Tribally-determined decline in a wild ungulate population or herd, primarily caused by wolf predation, so that the population or herd is not meeting established State or Tribal management goals.” *Id.* at 1307.

¹²⁹ 59 *Federal Register* 60252, 60255 (November 22, 1994) (Yellowstone); 59 *Federal Register* at 60272 (Idaho) (“wolves will not be deliberately killed solely to address ungulate-wolf conflicts”).

Northern Rocky Mountains DPS rule was reissued, the special rule for the Wyoming Ex Pop was returned to effect.¹³⁰

The 2005 Rule allowed states and tribes in the area to kill wolves where it was shown they were adversely affecting the populations of deer, antelope, elk, big horn sheep, mountain goats, bison, or moose in the area. Before the states and tribes could act, they were required to submit the plan for peer review, public comment, and FWS approval. Data at the time, from many sources cited by FWS, showed that wolf predation was “unlikely to be the primary cause of a reduction of any ungulate herd or population in Idaho, Wyoming, or Montana.”¹³¹ FWS reported that more wolves were killed (by wildlife agents or by hunting) in each year from 2007 through 2010, than cattle were killed by wolves.¹³² The wolf population in the area was estimated at 1,651 for 2010.¹³³

In 2008 FWS changed the special rule.¹³⁴ FWS determined that the definition of *unacceptable impact* had to be altered, as wolves were not the primary cause in ungulate population decreases. Accordingly, the definition was modified to mean: “Impact to a wild ungulate population or herd where a State or Tribe has determined that wolves are one of the major causes of the population or herd not meeting established State or Tribal population or herd management goals.”¹³⁵ Public and peer reviews are still required. The plan allows a state to kill wolves, provided the experimental population does not go below 20 breeding pairs in the state.¹³⁶ Additionally, wolves found by wildlife officials to be hybrids may be killed.¹³⁷

The 2008 Rule also expands the provision for killing wolves when they are in the act of attacking livestock or dogs. The 2005 Rule allowed an individual to “take” a wolf that was in the act of attacking stock animals or dogs on private property. The 2008 Rule allows individuals to take wolves that are in the act of attacking livestock or dogs on public lands as well, except for National Park Service property.¹³⁸ When the 2009 delisting of the Northern Rockies DPS was invalidated by a court, FWS reinstated the special rules regarding the Ex Pops in the area.¹³⁹

¹³⁰ 76 *Federal Register* 25590, 25592 (May 5, 2011).

¹³¹ See 2008 Rule, pp. 6-7, citing Bangs, *et al.* 2004, pp. 89-100; National Research Council 1997, pp. 185-186; Mech and Peterson 2003, p. 159; Pletscher *et al.* 1991, pp. 545-548.

¹³² See FWS, *Rocky Mountain Wolf Recovery Annual Reports* (reporting that in 2010—199 cattle were killed by wolves, and 260 wolves were killed (by either hunting or agency removal); in 2009—192 cattle were killed by wolves, and 478 wolves were killed (by either hunting or agency removal); in 2008—184 cattle were killed by wolves, and 264 wolves were killed by agency removal; and in 2007—183 cattle were killed by wolves, and 186 wolves were killed by agency removal), available at <http://www.fws.gov/mountain-prairie/species/mammals/wolf/>.

¹³³ FWS, *Rocky Mountain Wolf Recovery 2010 Interagency Annual Report Summary and Background* (down from 1733 in 2009), available at <http://www.fws.gov/mountain-prairie/species/mammals/wolf/annualrpt10/index.html>.

¹³⁴ Revision of Special Regulation for the Central Idaho and Yellowstone Area Nonessential Experimental Populations of Gray Wolves in the Northern Rocky Mountains (hereinafter the “2008 Rule”). 73 *Federal Register* 4720 (January 28, 2008). See also 73 *Federal Register* 75356 (December 11, 2008) (reinstating the special rules).

¹³⁵ 2008 Rule, p. 8.

¹³⁶ See annual reports at <http://www.fws.gov/mountain-prairie/species/mammals/wolf/>. According to FWS, at the time of the 2008 Rule, Montana had 394 wolves, including 37 breeding pairs; Idaho had 788 wolves, including 41 breeding pairs; and Wyoming had 362 wolves, including 27 breeding pairs. 2008 Rule, p. 11.

¹³⁷ 50 C.F.R. § 17.84(i)(7)(ii)(D).

¹³⁸ 2008 Rule, pp. 15-16.

¹³⁹ 75 *Federal Register* 65574 (October 16, 2010).

In February 2011 FWS proposed to allow Idaho to kill some wolves across five years to help the elk population rebound.¹⁴⁰ The rule would modify the special rules for Ex Pops.

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¹⁴⁰ 76 *Federal Register* 7875 (February 11, 2011) (Notice of an environmental assessment with the preferred alternative to reduce the approximately 76 wolves in the Lolo Elk Management Zone to 20-30 wolves for five years).