THE HUMANE SOCIETY
OF THE UNITED STATES

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Public Comments Processing
Attn: FWS-HQ-ES-2013-0073
Division of Policy and Directives Management
U.S. Fish and Wildlife Service
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Arlington, VA 22203
Via www.regulations.gov

Re: Comments on Docket No. FWS-HQ-ES-2013-0073

On behalf of The Humane Society of the United States (The HSUS) we appreciate the opportunity to comment on the proposed rule of 20 June, 2013 (78 Fed. Reg. 35664): "Removing the Gray Wolf (*Canis lupus*) From the List of Endangered and Threatened Wildlife and Maintaining Protections for the Mexican Wolf (*Canis lupus baileyi*) by Listing it as Endangered" (Proposal).

The U.S. Fish and Wildlife Service (Service) proposes several actions in this rule, including a decision to declare that the currently listed *C. lupus* entity is not a valid species under the Endangered Species Act (ESA or Act), that a separate species of wolf (*Canis lycaon*) is recognized in all or part of 29 eastern states in which *C. lupus* is not recognized, that three subspecies of *C. lupus* (*nubilus, occidentalis and baileyi*) constitute the taxonomically valid representation of gray wolves in the conterminous United States and that of these three, only the Mexican wolf (*C. l. baileyi*) warrants protection under the Act. The Service concludes:

Based on the best scientific and commercial information, we find that *C. lupus, C. l. nubilus*, and *C. l. occidentalis* are not in danger of extinction now, and are not likely to become endangered within the foreseeable future, throughout all or a significant portion of their ranges. Therefore, listing *C. lupus, C. l. nubilus, or C. l. occidentalis* as

threatened or endangered under the Act is not warranted at this time. 78 Fed. Reg. 35717.

The Proposal is intended to replace the Service's proposal of 5 May, 2011 (76 Fed. Reg. 26086) to revise the listing status for *C. lupus* in all or portions of 29 eastern contiguous states, and per your request we are folding in relevant parts of our comments previously submitted on that proposed rule.

The HSUS opposes the delisting of gray wolves under the Proposal. We fully understand the many challenges the Service faces with wolf conservation and protection. However, in addressing those challenges the Service cannot ignore the ESA's mandate that it base decisions solely on the best available science and commercial information. 16 U.S.C. § 1533(b)(1). Unfortunately, contrary to the requirements of the ESA, the Proposal to delist gray wolves is not based on the best available science. Wolves are not recovered throughout a significant portion of their range and remain threatened by human-caused mortality and inadequate regulatory mechanisms that do not ensure their continued survival after federal protections are removed. The Service's Proposal represents a rush to put aside a politically contentious and vexing issue to appease certain political interests, more than a realistic and rational consideration of the broader issues involved in wolf repatriation, and the best available science that the ESA requires.

A significant part of the best available science and information bearing on the conservation and protection of this iconic species has to do with its human dimensions – our past and present attitudes, values and beliefs about wolves. To a large extent, our history of interaction with wolves has been shameful, recklessly exploitative and laden with a hatred and prejudice rarely, if ever, directed at other species of wildlife. While we have moved past the days when the elimination of gray wolves from the landscape was a dedicated commitment of state and federal, not to mention private, entities into an era where the conservation and protection of wolves is at least being discussed, it is clear that old animosities still prevail in many parts of the current and former range for the gray wolf (Coleman 2004, Dunlap 1988, Lopez 1978, Lynn 2002, 2010, Nie 2003, Robinson 2005). Where such enmity occurs, wolves are at best viewed as a resource to be exploited, not preserved, and every effort is made to reduce their populations to minimally viable levels. Efforts to delist the gray wolf recklessly ignore these threats embodied in the still present appetite to exploit and persecute them. Moreover, the Service's various efforts to delist wolves, including the current proposal, have all been premature in failing to consider the very purpose of the ESA – the recovery of the species throughout all or a significant portion

of its range. 16 U.S.C. §§ 1532(b), 1533(3). The continued absence of gray wolves from vast swaths of their historic range means that they cannot be delisted.

We are at a crossroads with wolves at which we either turn back regressively to a new period of exploitation or engage the spirit in which we sought their restoration in the first place -- understanding and appreciation of the ecological role they play and appreciation that it was wrong to persecute these animals the way we did, coupled with a determination to fully recover the species, as the ESA requires. Having completely removed wolves throughout virtually all of their historic range, and having persecuted them in unimaginable ways, we must reengage them in a contemporary process that uses new understandings and insights, rejects historic antipathies and begins to compensate for the past. Instead, however, the Service's proposal to delist gray wolves throws them open to a new period of exploitation, is ill-considered and unwarranted, and not based solely on the best available science and commercial information. The future for wolves will indeed be dim until a more comprehensive, far-sighted, precautionary and prudent approach to wolf conservation and management is embraced.

The Service Cannot Delist Wolves in the Face of Taxonomic Uncertainty

The Service is required to make listing determinations "…solely on the basis of the best scientific and commercial data available." 16 U.S.C. § 1533(b)(1)(A). "The obvious purpose of the requirement . . . is to ensure that the ESA not be implemented haphazardly, on the basis of speculation or surmise." *Bennett v. Spear*, 520 U.S. 154, 176-77 (1997). Yet that is just what the Service has done here, since by its own admission it recognizes that "…*Canis* taxonomy will continue to be debated for years if not decades to come…" 78 Fed. Reg. 35670. Although the Service references upwards of fifty research articles that relate to wolf taxonomy and genetics in its Proposal, it bases its argument for delisting heavily on the recent publication by Chambers et al. (2012) where, in keeping with some (but not all) recent interpretations of wolf taxonomy the authors recognize two major clades of wolves in North America, one being the gray wolf (*C. lupus spp.*) and the other the eastern gray wolf (*C. lycaon*). The authors further argue that current genetic and morphometric data are not entirely supportive of the subspecific classification of the artic wolf (*C. l. arctos*), but do support recognition of a northern timber wolf (*C. l. occidentalis*) and a plains wolf (*C. l. nubilus*). Chambers et al. clearly stipulate that the taxonomic status of the eastern wolf remains "controversial" (2012: 12) and that uncertainty regarding both invasion history as well as post-invasion hybridization among North American canids leaves open the possibility that future research will provide data that would change or modify their current conclusions.

Uncertainties extending to the red wolf (*C. rufus*) and its taxonomic relationship with the eastern wolf, gray wolves and coyotes appear to make its status even less settled (Chambers et al. 2012, Rutledge et al. 2012). Overall, much greater genetic diversity is suggested for historic as opposed to contemporary wolf populations (Leonard et al. 2005) as the genetic makeup of historic populations was apparently distinctly different from today's populations in at least some parts of the range (Leonard & Wayne 2008).

Further research offers promise that relationships between contemporary North American canids will be clarified, but informational and sampling gaps need to be filled first, and any comprehensive understanding based on conforming data from a variety of sources, including the fossil record, morphometrics, genomics and ecological information. Rutledge et al. (2012) argue that interpreting genomic information from non-representative samples to the exclusion of other information is unsatisfactory, and they and other contemporary researchers (e.g. Leonard et al. 2005, Leonard & Wayne 2008, Koblmuller et al. 2009) represent voices of caution in using taxonomic assignments in a strict sense when the consequences for wolf conservation could be so great.

Moreover, according to the Service, "…a recovery plan is the appropriate vehicle to provide guidance on actions necessary to delist a species." 68 Fed. Reg. 15100, 15101 (Mar. 28, 2003). "In other words, the primary purpose of a recovery plan is to ensure that the [Service] is making progress towards recovery of the endangered species and to provide a guideline for determining when sufficient progress has been made to delist the species." *Grand Canyon Trust v. U.S. Bureau of Reclamation*, 2010 WL 2643537, *26 (D. Az. June 29, 2010). The Service's Proposal is based on reliance on three regional recovery plans – the Northern Rocky Mountains, the Great Lakes, and the Southwest. 78 Fed. Reg. at 35666. However, there is no national recovery plan for the gray wolf, nor are there any recovery plans for the specific subspecies the Service now claims exist. It is hard to see how these regionally specific recovery plans can properly guide the Service's determination as to whether delisting wolves outside those areas is appropriate. In addition, one of the recovery plans on which the Service relies in its Proposal – the recovery plan for the Great Lakes is the recovery plan for the eastern timber wolf – deals with a species of wolf the Service now claims is a separate species from gray wolves. *Id.* at 35670. The Service cannot rely on a recovery plan for what it now believes to be a separate species that does not exist in certain areas to delist wolves in those areas.

Beyond the debate about taxonomic status lies an ever-present and ongoing debate about the validity and power of taxonomic classifications themselves. Haig et al. (2013) for example note that listing subspecies as taxonomic units is becoming increasingly controversial, largely because of the way the Act protects infraspecific taxa. The disagreements that occur among specialists over subspecies do not mean they are intending to expose invalid taxonomic criteria as much as uncovering subjects of conflict over policies aimed at conservation and protection of certain taxa. The subspecific assignments made under *C. lupus* should not be used by the Service to justify its Proposal simply because they are convenient to a delisting argument and rationale serving political interests more than conservation and protection goals.

Further, it must be taken into consideration that human agency has been the significant and determining selection factor for wolves for at least half a millennium and what the true taxonomic relationship between wolves in North America was and what it might have become without human interference is something that may be impossible to know. In that sense, one might argue that the given and contemporary taxa of wolves are creations of human intervention and it is the potential for wolves to realize again the status they held prior to exploitation that is more relevant. Yet, the Service seems to treat wolf taxonomy and the population relationships that determine its course casually and as if this destructive past interference by humans were already overcome by the existence of small populations in what is such geographical restriction as to undoubtedly compromise genetic integrity. Simply put, barriers to genetic exchange which threaten current wolf populations will exacerbate confusion and controversy surrounding their taxonomy, especially in the Great Lakes as we have repeatedly argued in our previous comments to the Service.

Chambers et al. (2012) note further that both legal and policy considerations require further and separate analysis in determining the suitability of a subspecies as a unit for management action, clearly placing the simple taxonomic assignments made by researchers at a distance from policy and management decision-making. The Service must base its rule on the best available science and commercial information, but it fails to recognize that the best available science, when looked at objectively, simply tells us that the taxonomy of gray wolves is contested and debatable. The Service chooses to use its own experts to draw conclusions regarding gray wolf taxonomy, while ignoring, misrepresenting, or giving short shrift to other expert opinions, a choice which disregards fundamental

concepts of administrative law, *see e.g.*, *Motor Vehicle Mfr. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983), and cannot be said to be apolitical.

In previous comments, we argued the Service should not propose the delisting of the gray wolf or any subspecies of that taxon it recognizes prior to a status review of the relationship and status of gray wolf populations to that of the proposed eastern wolf, *C. lycaon*. This remains not only true for wolves in the western Great Lakes region as we argued previously, but for wolves throughout the conterminous United States. With the status of wolves in an unresolved state, removal of federal protections is premature, and certainly should not be proposed until a full review of the status of the newly designated eastern wolf has been conducted.

In every respect, the Service's decision to delist the gray wolf in the face of significant scientific uncertainty suggests that its decision is being influenced by politics, rather than based solely on the best scientific information as the ESA requires. 16 U.S.C. § 1533(b). Public statements from Service officials in various forums, including news articles and documents disclosed pursuant to requests under the Freedom of Information Act reveal that this is in fact the case. For example, Dan Ashe has been quoted as saying "Science is an important part of this decision, but really the key is the *policy question* [emphasis added] of when a species is recovered." Matthew Brown & John Flesher, *Obama Proposes Lifting Lower 48 Wolf Protections*, ASSOCIATED PRESS, June 7, 2013[1] Other articles reveal that the Service barred three of the nation's top wolf experts from participating in a scientific peer review of the Proposal after they, along with thirteen other scientists, wrote a letter to the Service in which they expressed their concerns over the substance of the proposed delisting rule. Specifically, the scientists – many of whom were responsible for the research referenced in the Proposal – stated that "[b]ased on a careful review of the rule, we do not believe that the rule reflects the conclusions of our work or the best available science concerning the recovery of wolves, or is in accordance with the fundamental purpose of the Endangered Species Act to conserve endangered species and the ecosystems upon which they depend." Letter from Bradley Bergstrom, PhD, et al. to Secretary Jewell (May 21, 2013). Such a move can only be seen as an attempt by the Service to stack the peer review of the Proposal in its favor. While the Service eventually attempted to rectify this situation by engaging an independent authority to select its science panel, the damage was done and the obvious political, as opposed to scientific agenda

[1] http://www.boston.com/news/local/new-hampshire/2013/06/07/apnewsbreak-plan-lifts-lower-wolf-protections/2T11bkzq9LWrOsWhPJTzXP/story.html.

involved, was laid bare. Finally, the Service's "talking points" for meetings regarding its national wolf strategy reveal that the Service traded protections for Mexican wolves at the expense of gray wolves: "By acknowledging that the range of the Mexican wolf includes these five states [AZ, NM, CO, UT and TX] through a subspecies listing, the Service would be able to justify delisting the gray wolf in these states." FWS, Talking Points for Reclassification of the Mexican Wolf (Sept. 8, 2011). The Service's "delist now and figure it out later" approach is not only bad management, but is contrary to the agency's duties under the ESA.

Wolves are Not Recovered Throughout a Significant Portion of Their Range (SPR)

Under the ESA, a species is "endangered" if it "is in danger of extinction throughout all or a significant portion of its range" and, similarly, a species is "threatened" if it "is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." 16 U.S.C. § 1532(6), (20). Thus, the interpretation of what constitutes a "significant portion" of a species' range is a vital component of the Service's delisting analysis, and the Service cannot distort its meaning in such a way that it runs afoul of the ESA. Unfortunately, the Proposal does just that.

In its Proposal, the Service states that a portion of the wolf's range is "significant" only where "its contribution to the viability of the species is so important that, without that portion, the species would be in danger of extinction." 78 Fed. Reg. at 35714. Yet such an interpretation, "…by reading 'all' and 'a significant portion of its range' as functional equivalents has the effect of rendering the phrase [significant portion of the range] superfluous," in violation of the plain meaning of the ESA and basic tenets of administrative law. *Defenders of Wildlife v. Norton*, 258 F.3d 1136, 1141–42 (9th Cir. 2001); *see id.* at 1142 (noting that a similar interpretation is redundant as listing a species as "threatened" throughout its range already covers situations in which the loss of a portion would leave the species in danger of extinction). Moreover, the Service's myopic focus on the species' risk of global extinction and biological viability in its definition of SPR ignores the fact that the ESA's stated purpose is to "provide a means whereby the *ecosystems* [emphasis added] upon which endangered species and threatened species depend may be conserved." 16 U.S.C. § 1531(b). This broader purpose is furthered by the presence of species across their historic range, especially for a species like the gray wolf – an apex predator whose presence on the landscape has ecological benefits. In other words, the ESA's concept of "significant portion of range" implies an additional geographic component to recovery that must be considered independently of viability, yet the Proposal fails to address this issue.

The Service's interpretation of "significant portion of the range" is also unlawful and contrary to the best available science because it only considers the gray wolf's "current" range – in other words, under the Service's interpretation, lost historic range cannot constitute a significant portion of the wolf's range. Yet the ESA does not support such a tortured, narrow reading. Indeed, several federal courts have rejected agency attempts to limit consideration of a species' range in listing and delisting decisions to only the current range of a species as "contrary to the plain meaning of the ESA..." *National Wildlife Federation v. Norton*, 386 F. Supp. 2d 553, 566 (D. Vt. 2005); *see also Defenders of Wildlife v. Norton*, 239 F.Supp.2d 9, 19 (D.D.C. 2002) (finding the Service's conclusion that three-fourths of the Canada lynx's historical regions were "collectively not a significant portion of its range" to be "counterintuitive and contrary to the plain meaning of the ESA phrase 'significant portion of its range'" and "is antithetical to the ESA's broad purpose to protect endangered and threatened species"); *Tucson Herpetological Soc'y v Salazar*, 566 F. 3d. 870 (9th Cir. 2009) (noting that the Service must analyze whether lost historical range is a significant portion of the range). And the Ninth Circuit has specifically recognized that "a species can be extinct 'throughout…a significant portion of its range' if there are major geographical areas in which it is no longer viable but once was. Those areas need not coincide with national or state political boundaries, although they can." *Defenders of Wildlife v. Norton*, 258 F.3d 1136, 1145 (9th Cir. 2001).

In order for the "significant portion of [the] range" requirement to have any teeth, the threats analysis under Section 4(a) must be conducted at a meaningful geographic scale. If the Service were allowed to split up a species' range and then focus solely on the threats within those areas, the Service could justify delisting any endangered species whose remaining populations are clustered in isolated pockets. Yet, the Proposal proceeds with its analysis of the Section 4(a) threats analysis that might affect its recognized and designated taxa (the *nubilus* and *occidentalis* subspecies) by considering them only in the context of their current range (78 Fed. Reg. 35680, 78 Fed. Reg. 35689). This is counterintuitive, as wolves are characterized by their complex social structure and behaviors and populations that interact at large spatial scales (Mladenoff et al. 1995), yet they remain extirpated from more than ninety percent of their former range (Morell 2008). To suggest that the tiny part of the former range which they currently inhabit is in any sense biologically or ecologically significant, or even sufficient, for the species defies logic. Moreover, under such an approach, past losses of the wolf's range are not accounted for. Such an approach significantly underestimates the risks of extinction for the wolf and arbitrarily elevates

its prospects of recovery. Further, by the Service's own admission, there are numerous areas within the conterminous United States that contain suitable habitat and yet remain devoid of wolves. These areas include the Northeast, parts of Michigan and North Dakota, the Pacific Northwest, and other parts of the West. *See Defenders*, 354 F. Supp. 2d at 1167 & n.8 (discussing wolf habitat and dispersing wolves in the Northeast, Northwest, and the Dakotas); 65 Fed. Reg. 43462 (identifying favorable wolf habitat in the Northeast); 71 Fed. Reg. 15279 (discussing unoccupied wolf habitat in Michigan and North Dakota); 65 Fed. Reg. 43474 (noting that "there is certainly habitat that could support wolves" in western states such as Oregon, Utah, and Colorado). Yet the Service's Proposal fails to adequately consider the potential of wolves to re-occupy these areas, and thus reach true recovery, by narrowly focusing its analysis on the species' current range.

The Service seems interested in keeping wolves where they are despite available habitat existing throughout significant portions of their former range and the obvious ability of wolves to disperse through even marginal habitat for them (e.g. Mladenoff et al. 1995, Oakleaf et al. 2006). It is important to gray wolf conservation and protection that all existing and suitable available habitat be accessible to them as a part of natural range expansion. By proposing delisting of gray wolves and opening them to a new era of state management the Service is practicing a form of *habitat denial* that threatens wolves regardless of their taxonomic status. This has most recently been raised by the suggestion of "ecological extinction" (Ripple et al. 2013) which argues the ecological effects of wolf repatriation may not be realized outside of large reserves where wolves are not exploited through recreational or depredation-related taking. It is essential to the restoration of wolves and consistent with the ESA mandate that they not be denied access to suitable habitat.

Moreover, in erroneously deciding that gray wolves – and the various subspecies the Service claims now exist – are recovered in a significant portion of their range, the Service failed to adequately justify the alleged "insignificance" of the potential habitat lying outside what it considers to be a significant portion of the range. In the Proposal, the Service found that all areas outside the core recovery area are not "significant" because they purportedly do not contain suitable wolf habitat. For example, the Service asserts that wolves will not occupy potential dispersal corridors and other areas – and that therefore these areas are not significant – "…due to human and livestock presence and the associated lack of tolerance of wolves due primarily to livestock depredation." 78 Fed. Reg. at 35680. Such logic is contrary to the Service's mandate under the ESA – if wolf extirpation will continue in dispersal corridors

and other areas, then wolves *need protection* there, not abandonment to external human impacts. *See id.* at 35684 (wolf listed under the ESA solely due to active human eradication program); 16 U.S.C. 1533(a)(1) (ESA-listing factors include the "(A) destruction, modification or curtailment of [the species'] habitat or range; (B) overutilization for commercial, recreational… purposes; (C)…predation; [and] (D) the inadequacy of existing regulatory mechanisms species.").

Furthermore, it is concerning as well that the Service devotes so much attention to the status of gray wolves in Canada (e.g. 78 Fed. Reg. 35679-35680) when it is the status of gray wolves in the contiguous United States that is the sole issue upon which the Proposal should be focused. *See* 43 Fed. Reg. 9607 (Mar. 9, 1978) (listing gray wolves in the lower-48 states, noting that the "rulemaking clearly indicates that the gray wolf is listed everywhere to the south of the Canadian border, but nowhere to the north."). Indeed, the Services' discussion of the status of wolves in Canada – which were never listed under the ESA – while at the same time ignoring the imperiled status of wolves in parts of the wolf's range that were actually part of the 1978 listing is arbitrary and nothing more than a thinly veiled attempt to elevate the status of wolves so that the Service can better justify its politically-motivated decision to delist wolves across the lower-48 states.

Given that wolves are long-range dispersers, capable of traveling for hundreds of miles in search of suitable colonizing locations, for this species to be fully restored to the conterminous United States it will be necessary to allow them to exercise natural dispersal, exchange genetic material, and occupy available and suitable habitat. The Service, however, seems bent on creating constraints to these processes that threaten to stop wolf recovery in its tracks. Wolves are not recovered throughout all or a significant portion of their range, and thus cannot be delisted. *See* 16 U.S.C. §§ 1531(b); 1532(3), (6) (purpose of the ESA is to "conserve" listed species across all or a significant portion of their range to the point at which the species no longer needs the protections of the Act); 50 C.F.R. § 424.11(d).

Because wolves have not recovered throughout a significant portion of their range, as required by the ESA in order to lawfully delist the species, the Service has attempted to delist the species under different guises, such as simultaneously listing and delisting Distinct Population Segments (DPS). Congress has never intended that a DPS could be used as a delisting tool, because to do so would hinder species recovery rather than promote it, in direct contravention of the ESA. *See Defenders of Wildlife*, 354 F. Supp. 2d at 1169; *Nat'l Ass'n of Home Builders v. Norton*, 340 F. 3d 835, 842 (9th Cir 2003); *Friends of*

the Wild Swan, 12 F. Supp. 2d at 1133. The illegality of past delisting rules, that have created a remnant population that is no longer a listable entity under the ESA according to the Service, cannot serve as an adequate justification to delist gray wolves across the lower-48 states.

Wolves Remain Threatened By Mortality Factors and Inadequate Regulatory Mechanisms

Decisions to reclassify an already-listed species are governed by the same standards in listing species. Thus, the Service must conduct the same Section 4(a)(1) threats analysis before removing a species from the list of endangered and threatened wildlife as it does when listing the species. *Id*. U.S.C. § 1533(c)(2)(B); *see also Defenders of Wildlife v. Babbitt,* 130 F.Supp. 2d 121, 133 (D.D.C 2001) (noting that "the same five statutory factors must be considered in delisting as in listing") (citations omitted). A species has not recovered, and cannot be delisted, "until the threats to the species as analyzed under section 4(a)(1) of the Act have been removed." 51 Fed. Reg. 19926, 19935 (June 3, 1996). The five listing factors are:

> (A) The present or threatened destruction, modification, or curtailment of its habitat or range;
> (B) The over-utilization of the species for commercial, recreational, scientific, or educational purposes;
> (C) Disease or predation;
> (D) The inadequacy of existing regulatory mechanisms; or
> (E) Other natural or manmade factors affecting its continued existence.

16 U.S.C. § 1533(a) (1); 50 C.F.R. § 424.11(c), (d). Because a species can be listed solely on the basis of one of these five factors, in a delisting analysis the Service must review all five factors to determine whether each threat has been removed to ensure the species is protected and its long-term conservation is ensured once federal protections are removed. However, in its current Proposal, the Service has not adequately evaluated all of these factors – wolves remain endangered by over-utilization, disease and human predation, inadequate regulatory mechanisms, and other factors.

Overutilization and Human Predation

The Service's proposed delisting of wolves speaks to its confidence in assuming that neither natural or manmade factors will thereafter threaten their continued existence when, in fact, considerable uncertainty exists about the consequences of opening wolf populations up to a renewed period of

human exploitation. For example, Brainerd et al. (2008) address the issue of breeder loss in wolf packs through an analysis of pooled data, finding among other consequences that the loss of one or more breeders led to dissolution of groups and territory abandonment in 38% of cases. They suggested that managers only remove wolves from packs when pups are six months of age or older and when the group contains 6 or more members, conditions unlikely to be met or controllable under hunting season regimes. Further, Rutledge et al. (2010) concluded that human predation could affect evolutionary important social patterns in wolves and that intense harvest appeared to increase the adoption of unrelated wolves into disrupted packs. Following a ban on harvesting they also noted that natural mortality replaced that caused by humans, leaving wolf density constant. These studies show that until we have gained a better knowledge of factors such as these it would be imprudent to continue to open wolf populations up to exploitation through delisting and allowing recreational take by hunters and trappers.

Gray wolves are vulnerable to a variety of mortality factors, including diseases and overutilization by humans, and while the Proposal concludes that they will be unaffected and resilient to these in both the short and long-term it is laden with qualifications that admit high levels of uncertainty about this. For example, within a single page addressing the issue of mortality can be found such statements as: "…but substantial debate on this issue [sustainable mortality] remains…", "…exact figures [on illegal killings] are unavailable…", and "…we lack direct information on disease rates and mortality rates from disease…" (78 Fed. Reg. 35683). While we fully understand how difficult it is to arrive at "exact" rates and figures, uncertainties about such factors ought to be very concerning and dictate a cautionary, rather than unprotective approach, particularly given the precautionary, conservation mandate embodied in the plain language of the ESA. *See TVA v. Hill*, 437 U.S. 153, 194 (1978) ("Congress has spoken in the plainest of words, making it abundantly clear that the balance has been struck in favor of affording endangered species the highest of priorities, thereby adopting a policy which it described as "'institutionalized caution.'"); *Conner v. Burford*, 848 F.2d 1441, 1454 (9th Cir. 1986) (Congress "inten[ded] to give the benefit of the doubt to the species.")

Wolf Mortality and Inadequate Regulation

The Service appeals through the Proposal to an existing body of science that argues that gray wolves can sustain high rates of mortality (e.g. 78 Fed. Reg. 35700). However, such a sentiment directly contradicts what the Service has said in the past, *see* 76 Fed. Reg. at 61807 (the Services' statement that "[w]olves

are unlike coyotes, in that wolf behavior and reproductive biology have resulted in wolves historically being extirpated in the face of extensive human-caused mortality"), and leaves open the question, alluded to above, as to whether such mortality is biologically injurious to wolves or wolf populations over the short or long term. The Service has not adequately addressed, but must analyze, the consequences of high and sustained levels of mortality for both the recovery as well as sustainability of wolves under the ESA. Indeed, in the short time that wolves have been delisted in the Northern Rocky Mountain and Western Great Lakes regions, recreational hunters and trappers have killed over two thousand wolves. Such widespread hunting and trapping has already led to population-level impacts. For example, there was a seven percent decrease in the wolf population in the Northern Rocky Mountains from 2011 to 2012. In Minnesota, a 2012-2013 count of the wolf population revealed that the population fell by nearly twenty-five percent from the last count (conducted in 2008), much of which may be due to the over 400 wolves that were killed by hunters and trappers in the 2012-2013 hunting season – the first public hunt in the state in over four decades. Further, many of these states allow extremely inhumane hunting methods including the use of steel-jawed leg-hold traps and the use of hounds – encouraging the same behavior that lead to the near extirpation of wolves in the first place. In fact, thus far 174 of the 216 wolves killed in the 2013 Wisconsin wolf hunting season have been killed via trapping.

In its Proposal, the Service recognizes that "regional populations of *C. lupus* are facing significant threats." 78 Fed. Reg. 35717. Those threats are only going to increase in the areas where wolves are already delisted – a recreational hunting season is now underway in Michigan, the Wisconsin DNR recently increased the kill quota from 201 to 251 wolves, and states in the Northern Rocky Mountains have eliminated quotas and expanded hunting seasons – and will certainly increase for the wolves across the country if the Service finalizes its Proposal. As the Service previously recognized, because human-caused wolf mortality is the number one threat to the species' continued existence, adequate mechanisms must exist to control such a threat. Yet, the Proposal fails to mention existing regulatory mechanisms in a number of states (including states in which dispersing wolves have regularly been seen) in which it proposes to delist wolves for one simple reason – the regulatory mechanisms simply do not exist. *See* 78 Fed. Reg. at 35675 (noting that wolves have been seen in Missouri, Indiana and Nebraska, but not discussing any regulatory mechanisms in those states). It is hard to see how the absence of any protections whatsoever can constitute an adequate regulatory mechanism. Moreover, even states that have at least some regulatory mechanisms in place make no secret of their hostility towards wolves. For

example, Utah requires state wildlife officials to capture and kill any wolf that comes into the state in order to prevent the establishment of a viable wolf pack. Utah Code § 23-29-201.

Other Manmade Factors: Ethics, Human Dimensions and Wolf Management

Ethics involves individual reflection and political deliberation about what is right and wrong in our personal and community lives. Whenever our actions or policies have good or bad consequences for others, questions of ethics stand front and center (Singer 1979, Midgley 1993, Rachels & Rachels 2009). Ethical inquiry is necessary to help causally explain why individuals and cultures think and act as they do, a point widely understood in the environmental and social sciences (Dryzek 2005, Garner 2004, Lynn 2006, Rollin 2006). This is especially true in the case of wolf management and federal and state policies about wolves. Human actions may harm or help wolves as individuals, social units, populations, species, and members of ecological communities. Ethics (i.e. social science, along with biological and ecological science) is therefore part of the best available scientific information upon which the Service must base its delisting decisions, 16 U.S.C. § 1533(b)(1), particularly for a species such as the gray wolf that is so susceptible to human-caused threats, *see* 78 Fed. Reg. at 35684 (noting that "[a]n active eradication program is the sole reason that wolves were extirpated from their historical range in the United States"), and is indispensable in properly guiding wildlife management concerning wolves (Leopold 1968, Lynn 2006, Sharpe et al. 2001).

Intrinsic Value

Wolves undoubtedly have their own measure of awareness, self-awareness and sociality, something well understood since Darwin's time (Bekoff et al. 2002, Bekoff & Pierce 2009, Darwin 1981). They thus have an intrinsic moral value of their own, irrespective of our use or abuse of them. This requires both human individuals and political communities to consider the ethics of their actions and policies towards wolves. This does not mean we must treat wolves in the same way we treat human beings. Rather it means that we must give wolves the full measure of ethical respect and consideration they deserve (Lynn 1998, Midgley 1995, Rolston 1988).

Sustainability

Wolves are an important indicator of our society's progress towards sustainability. As a widely accepted goal, sustainability is rooted in a moral commitment to perpetuating all life on the planet, for the benefit

of current and future generations of human beings, as well as the biodiversity and living systems of which we are a part (Lavigne 2006, Midgley 2001, 2007).

We know that as a top predator, wolves have a positive effect on ecosystem health via trophic cascades that produce healthier and more biodiverse landscapes (e.g. Pace et al. 1999). In this way, wolf conservation promotes the ESA's broader goal of preserving functioning ecosystems, and not just individual species. *See* 16 U.S.C. § 1531(b) (stating the congressional purpose of conserving "the ecosystems upon which endangered species and threatened species depend"). Yet their presence in healthy landscapes also tells us something about our societal capacity to live in a sustainable relationship with the natural world. Learning to live with predators like wolves is a precondition to preserving and restoring our natural heritage, as well as doing right by wolves and the rest of nature (Fox 2001, Lynn 2007, 2010, Naess 1974). Throughout history, many peoples have done and continue to do tremendous harm to wolves and their habitat. When we learn to co-exist alongside wolves to our mutual well-being, we are making substantial ecological, social and ethical strides to living in right relationship with the earth.

Human Dimensions

The importance of how people feel about and act toward wolves cannot be undervalued when considering their conservation and management. Historically, an enormous amount of antipathy has been expressed towards wolves, up to and including a coordinated and systematic persecution of them at a landscape level. Neither the residual nor reawakened remnants of that antipathy can be ignored. Such data are essential in making decisions whether to delist species, and wolves in particular, considering that wolves are especially vulnerable to human-caused threats. Indeed, it was widespread persecution and local, state and federally-authorized bounties intended to eliminate the gray wolf that nearly eradicated them from the 48 conterminous United States in the first place. 68 Fed. Reg. 15804, 15, 805 (Apr. 1, 2003); *see also* U.S. Fish and Wildlife Service, *Gray Wolf*, http://training.fws.gov/library/Pubs/graywolf.pdf (July 1998) (the Service noting that wolves were hunted and killed "with more passion and zeal than any other animal in U.S. history", and that human-caused pressure, such as hunting and trapping, still remain the number one threat to the wolf's continued survival). A fairly robust and evolving body of research and literature exists on the subject of attitudes, beliefs and values held towards wolves, but here as with others aspects of the wolf issue we find controversy, uncertainty and divergent findings. This extends to even the methodological certainty

of sampling approaches – the fundamental baseline from which the science of human dimensions emerges. Mazur & Asah (2013), for example, argue that despite an extensive outreach processes in Washington State to garner public input, the information there represents only "transitive thoughts" that can at best be characterized as spontaneous and unpredictable. They argue that by using a specific approach (Q methodology) aimed at piecing out the more subjective nature of people's feelings toward wolves they found more unanimity and less contention over a majority of responses than would have been revealed through more traditional analysis. The point is that we do not yet know enough about how people feel about wolves to speculate much about how they will behave in the presence of these animals, much less embrace the suggestion that if allowed to reopen a period of exploitation they will come to place value on these animals as the Proposal alleges . 78 Fed. Reg. at 35693. In one of the only long-term reviews of public attitudes towards wolves, Treves et al. (2013) resampled a pool of individuals in Wisconsin over a period of policy shifts, predicting that because of attitude changes, there would be future increases in both legal and illegal killing unless interventions were implemented to improve behavior and attitudes towards wolves. The population-level consequences of this, especially the illegal component, need to be more accurately and systematically taken into account when considering removing protections from wolves. The gray wolf remains vulnerable and threatened by over-utilization driven by the vagaries of human sentiments and action that translates from sentiments into impacts on wolf populations.

A Precautionary Approach

Any proposal to remove protections afforded gray wolves under the ESA must be conservative, given the stakes involved. The precautionary principle is often simply articulated as "better safe than sorry" (e.g. Cross 1996). The principle has been used in conservation biology to address concerns about the potential consequences of not taking action when threats are well enough documented to suggest adverse consequences and damage can reasonably be expected (e.g. Calver et al. 2011).

While we do not argue this principle be applied blindly to all initiatives in wildlife conservation, we do find value in its guidance on a case by case basis, particularly when making decisions with respect to ESA-listed species because "Congress has spoken in the plainest of words, making it abundantly clear that the balance has been struck in favor of affording endangered species the highest of priorities, thereby adopting a policy which it described as "'institutionalized caution.'" *TVA v. Hill*, 437 U.S. at 194. With respect to wolf conservation and protection it applies in the sense that significant uncertainties

exist about these animals that range from their taxonomy, biology and ecology to threats from policies that disregard the need to maintain viable populations with free exchange of genetic material. Why remove protection from wolves and allow their exploitation in the face of such uncertainty, when the risk exists to drive them deeply into peril as populations or at even higher taxonomic levels? The best science and commercial information available suggests a prudent, not reckless, course of action.

Ethics Review

The current Proposal to delist the gray wolf throughout the United States has been subject to withering scientific rebuke, often by the same scientists whose work the Service is citing as justification for its decision. What has escaped formal examination are the moral and other social science data that have played a central role in shaping the delisting Proposal, which is in part understandable because of the need to address only the listing factors. We would make the argument, however, that the rebuke and controversy surrounding this issue themselves constitute "manmade factors" contributing to threats to the continued existence of the gray wolf. For this reason, the Service should conduct an ethics review of the delisting Proposal, and should certainly include an ethics review as a preemptory measure in all subsequent environmental impact statements that affect wolves.

This is not an unprecedented endeavor. In 2009 the Service decided to incorporate an ethics review into its Environmental Impact Statement (EIS) on an experiment removing barred owls for the benefit of northern spotted owls in the Pacific Northwest and hired ethicist William Lynn of the Marsh Institute at Clark University. Northern spotted owls are increasingly endangered due to habitat lost, competition with barred owls, and climate change. The Service chose an ethics review for two reasons (Lynn 2011, USFWS 2013). First, they recognized that they could not comprehend the public's concerns or comments about barred owl removal without taking into account the moral sensibilities that underlie those concerns. The same applies to wolves in spades. Every public comment period about wolves witnesses an overwhelming majority of Americans supporting the wide distribution of wolves across the landscape and the urging to keep them protected under the ESA.

Second, the Service understood that biological and ecological science alone is not always sufficient. Biological and ecological science can help us understand the causal dynamics of the natural world and can give us choices and options for what we choose to do when it comes to management. But biological and ecological science alone fails to account for social scientific data and the public's attitudes towards

wolves. The Service should therefore follow or adapt the model used by the barred owl ethics review whereby a stakeholder group of individuals representing a wide diversity of views was formed and an ethicist was hired to help design and facilitate the process. Combining ethics training with interviews, focus groups, field trips, and roundtable discussions will allow the stakeholders to identify and elaborate on significant ethical issues that informed the process.

Finally, there are other benefits from an ethics review on wolf management to consider here. An ethics review will help restore credibility to the Service, something which has been badly tarnished with regards to wolves in recent years. The attempt to stack a peer review committee with those sympathetic to wolf delisting is a case in point. So too are recent revelations about the political horse-trading that framed the current delisting proposal between the Service and state wildlife management agencies hostile to wolves. An ethics review would help clear the air, ensure ideological and economic interest do not distort the scientific analysis, and better represent the values and concerns of all citizens concerned with wolves.

The Mexican Wolf

The Service also proposes several revisions to the existing nonessential experimental population designation of the Mexican wolf (*Canis lupus baileyi*) and solicits comments regarding this population (78 Fed. Reg. 35719). We concur with the decision to prepare an EIS for this taxon and look forward to commenting on that document.

We would like to note, however, that until an ethics review (referenced above) has been undertaken, the Service cannot fully comply with the requirements of the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321, et seq. NEPA is America's "basic national charter for protection of the environment." 40 C.F.R. § 1500.1(a). NEPA ensures that federal agencies "will have available, and will carefully consider, detailed information concerning significant environmental impacts" and that such information "will be made available to the larger [public] audience that may play a role in both the decision making process and the implementation of the decision." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

As one means of holding federal agencies to account, NEPA requires federal agencies to prepare a detailed EIS for any "major federal action significantly affecting the quality of the human environment."

42 U.S.C. § 4332(2)(C). In doing so, it recognizes the indispensable importance of ecological science in conducting these assessments. Yet it does not stop there. It also mandates the use of "interdisciplinary approach [to] insure the integrated use of natural and social sciences" in the EIS process, including the integration of "unquantifiable values" to achieve a "sustainable" and "productive harmony" between "man and nature." *Id.* §§ 4331, 4332. This is a portion of NEPA that the Service has been routinely ignoring to the detriment of the public, and in this case, to the detriment of wolves as well. An ethics review will help the Service meet its full obligations under NEPA, while simultaneously improving its policy-making process (Bartlett 1999, Lindstrom & Smith 2008).

Wolves are not simply biological automatons, functional units of ecosystems, or recreational commodities. They are living, feeling, thinking creatures that deserve our respect and moral consideration. Since wolf management is primarily a matter of federal and state policy, and neither has explicitly addressed the ethical dimensions as envisioned under NEPA and required to formulate good public policy, we strongly urge the Service to begin an immediate ethics review.

We do not agree, however, that the Mexican wolf is the only population of wolves in the conterminous United States meriting protection under the Act, and believe, whether experimental population or not, that the boundaries drawn for recovery are solely political and not biologically relevant or applicable to this taxon as it was historically represented. We firmly believe that all wolf taxa need further federal protection.

Conclusion

We wish to express our appreciation for the opportunity to comment on the Proposal to delist gray wolves through their current range in the lower-48 states. Wolves are apex predators that currently occupy only a fraction of their former range as well as available habitat, and yet are capable of extensive and long range movements. They are suited to, and historically have been in, many more places than currently occupied and will be denied the opportunity to undergo range expansion by delisting in ways as yet unclear, given the considerable range of state policies and regulations that currently do and in the future will govern their taking should the Service finalize its Proposal. Further, we lack a sufficient understanding of wolf taxonomy, phylogenetic history, biogeography, habitat and range, vulnerability to exploitation and disease, social organization and behavior, as well as other aspects of their ecology and behavior to allow a new period of human exploitation of these animals to be reopened.

In conclusion, it is our belief that this proposed delisting is not warranted or justified given the best available science and commercial information and the Proposal must be withdrawn in consideration of the many factors identified and described in this letter.

Sincerely,

Nicole G. Paquette

Vice President, Wildlife Protection

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