



American  
Society of  
Mammalogists

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Public Comments Processing  
Attn: FWS–HQ–ES–2013–0073 and FWS–R2–ES–2013–0056  
Division of Policy and Directive Management  
United States Fish and Wildlife Service  
4401 N. Fairfax Drive  
Arlington, VA 22203  
Submitted via <http://www.regulations.gov>

**Re: Proposed Revision To the Nonessential Experimental Population of the Mexican Wolf**

On behalf of the Society for Conservation Biology’s North America Section (SCB-NA)<sup>1</sup> and the American Society of Mammalogists (ASM)<sup>2</sup>, we submit the following comments on the US Fish and Wildlife Service’s (“Service”) proposed rules for a revision to the nonessential experimental population of the Mexican wolf<sup>3</sup> and for removing the gray wolf from the list of endangered and threatened wildlife and maintaining protections for the Mexican Wolf by listing it as endangered<sup>4</sup> (FWS–HQ–ES–2013–0073 and FWS–R2–ES–2013–0056).

Due to our members’ scientific expertise regarding the biology and conservation of endangered species, both SCB and ASM have previously commented on rules related to Mexican wolf recovery planning. In 2007, ASM members passed a resolution requesting that the Service expedite the process of revising the Mexican wolf recovery plan to ensure the recovery and sustainability of populations of Mexican gray wolves. In 2009, ASM asked the Department of Interior to expedite the revision of the 1982 recovery plan and to identify additional recovery areas for the Mexican wolf. Similarly, in December 2007, SCB

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<sup>1</sup> The Society for Conservation Biology (SCB) is an international professional organization whose mission is to advance the science and practice of conserving the Earth's biological diversity, support dissemination of conservation science, and increase application of science to management and policy.

<sup>2</sup> The American Society of Mammalogists (ASM) was established in 1919 for the purpose of promoting interest in the study of mammals, and providing information for public policy, resources management, conservation, and education.

<sup>3</sup> Proposed Revision To the Nonessential Experimental Population of the Mexican Wolf, 78 Fed. Reg. 35719, June 13, 2013 and 78 Fed. Reg. 64192, October 28, 2013.

<sup>4</sup> 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, 78 Fed. Reg. 35664, June 13, 2013.

submitted comments recommending alternative management approaches for Mexican wolves as potential modifications of the existing regulatory framework, focusing in particular on the urgent need for a revised recovery plan. In November 2010, SCB repeated its request to the agency to expedite development of a recovery plan. In June 2012, ASM, SCB, and the Society for Ecological Restoration offered to provide a scientific peer review of the recovery plan in order to expedite its progress. Therefore, despite noting some positive aspects of the current proposal, we reviewed with concern those aspects (as detailed below) that promise to further delay development of science-based management recommendations and thus recovery of the Mexican wolf.

The Mexican wolf (*Canis lupus baileyi*) represents one of the most distinct genetic lineages of wolves in the Western Hemisphere<sup>5</sup>. This subspecies is also one of the most endangered mammals in North America and, as early as 1976, was protected under the Endangered Species Act. A single experimental population was reintroduced to the Blue Range of Arizona and New Mexico beginning in 1998. Between 2003 and 2009, growth of the wild population stagnated due to the regulatory structure of the reintroduction program, an out-of-date recovery plan, illegal shooting of individual wolves, and the effects of continued genetic inbreeding. Although population growth has resumed since 2009, each year that the captive and wild Mexican wolf populations remain at or near currently low population levels brings greater risk that the effects of genetic inbreeding will cause irreparable harm to the subspecies.

In view of the urgent and ongoing threats to the viability of the Mexican wolf population, we request that the Service consider the following revisions to the proposed rule:

**1. De-couple revisions to management of the Mexican wolf population from national wolf delisting**

We support those portions of Service's rule<sup>6</sup> that proposes to list the Mexican wolf as an endangered subspecies. The subspecific designation for the Mexican wolf has extensive support from genetic and morphological studies<sup>7</sup>. However, due to significant shortcomings in other aspects of the Service's national wolf delisting rule (FWS-HQ-ES-2013-0073) and the history of past efforts to delist the species, it can be anticipated that the national rule will be subject to a lengthy period of litigation.

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<sup>5</sup> Vonholdt, B. M., et al. 2011. A genome-wide perspective on the evolutionary history of enigmatic wolf-like canids. *Genome Research* 21:1294–1305.

<sup>6</sup> 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. 78 Fed. Reg. 35664, June 13, 2013.

<sup>7</sup> Vonholdt et al. 2011, op. cit.

Because of the magnitude of genetic threats to Mexican wolves<sup>8</sup>, a lengthy delay in the implementation of revisions to management of the Mexican wolf population will reduce the likelihood of recovery for the subspecies. Therefore, we suggest that proposed designation of the Mexican wolf as a subspecies under the ESA be decoupled from the national wolf rule-making. This could occur via the Service reconsidering the 2012 negative 12-month finding regarding listing of the Mexican wolf as a subspecies, or via an “emergency” listing of the subspecies as endangered. If the Service fails to explore these options, it is likely that critically needed revisions to management of the Mexican wolf population will not occur in a timely manner, if at all. The previous Mexican wolf recovery planning process, which occurred in 2003-2005, was similarly coupled to the larger national wolf rule-making process, and was suspended due to court challenges to national wolf delisting. This resulted in a decade of delay before recovery planning was reinitiated, with consequent harm to the species via genetic deterioration of the wild and captive populations.

## **2. Designate a geographic area for listing of the subspecies based on the best available scientific data**

A problematic aspect of the rule that proposes to list the Mexican wolf as endangered, is the fact that the Service does not designate the species as endangered over a specific geographic area, but instead designates the subspecies as endangered “where found”. Given the statement in the rule that wolves dispersing north of Interstate 40 will be recaptured (see below), the Service is effectively delimiting protection to the areas in Arizona and New Mexico south of Interstate 40. This boundary has no scientific support or justification. Genetic analysis of historic Mexican wolves showed that the range of the Mexican wolf likely extended beyond the historic range initially inferred from limited record data<sup>9</sup>. Recent research<sup>10</sup> has also identified areas well to the north of the current distribution as essential to the recovery of this critically endangered species. Therefore, a designation of the species as protected “where found” does not offer sufficient protection to overcome the many obstacles to recovery that this subspecies currently faces.

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<sup>8</sup> Fredrickson, R. J., P. Siminski, M. Woolf, and P. W. Hedrick. 2007. Genetic rescue and inbreeding depression in Mexican wolves. *Proceedings of the Royal Society B* 274:2365–2371.

<sup>9</sup> Leonard, J. A., C. Vila, and R. K. Wayne. 2005. Legacy lost: genetic variability and population size of extirpated US grey wolves (*Canis lupus*). *Molecular Ecology* 14:9–17.

<sup>10</sup> Carroll, C., R. J. Fredrickson, and R. C. Lacy. 2013. Developing Metapopulation Connectivity Criteria from Genetic and Habitat Data to Recover the Endangered Mexican Wolf. *Conservation Biology* doi: 10.1111/cobi.12156

### **3. Resume recovery planning**

The current recovery planning process is the third attempt in three decades to revise the seriously outdated 1982 recovery plan. However, the recovery team has not met since 2011 and the process appears effectively suspended. A science-based recovery plan has the potential to reduce conflict over the long-term by minimizing litigation, minimizing resources needed by the service for defending its actions, and speeding the eventual delisting of the Mexican wolf. Because lack of an updated recovery plan seriously hampers efforts to recover the subspecies, we encourage the Service to resume the recovery planning process immediately. One example of the harm caused by lack of a recovery plan is the lack of a scientifically-supported recovery criterion for the size of wolf populations that would need to be met for the species to be downlisted and delisted. The proposed rule makes reference to a population objective of 100 individuals that was proposed as part of the 1982 Mexican Wolf Recovery Plan. This objective was never supported by quantitative analysis. Now, after more than 30 years, it lacks any relevance to recovery planning for Mexican wolves. The ESA directs that recovery criteria for endangered and threatened species be based on best available scientific data. Recovery criteria must be developed that are sufficient to address the continuing loss of genetic health due to inbreeding, and to ensure long-term resiliency in wolf populations given expected habitat changes in the Southwest due to climate change and other factors. Research recently published in the journal *Conservation Biology* demonstrates that a recovery objective of a single population of 100 individuals would face a substantial likelihood of extinction<sup>11</sup>.

### **4. Increase the rate of new releases from the captive population, including through establishment of new populations**

The captive Mexican wolf population is substantially more genetically diverse than the wild population. To avoid deleterious effects of genetic inbreeding such as reduced litter sizes<sup>12</sup>, it is imperative that the rate of new releases of captive individuals into the wild be greatly accelerated, from the current annual rate of close to zero to a rate of greater than 10 per year. If new releases were made into areas where wolves could persist and reproduce, this step would reduce the mean kinship of the wild population so that it would become a more complete repository of the remaining genetic variation in both the captive and wild populations. This would provide a natural genetic reservoir or backup as the captive population loses diversity over time. If this step is not taken, any future reintroduction of Mexican wolves to

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<sup>11</sup> Ibid

<sup>12</sup> Fredrickson et al. 2007, op. cit.

additional areas will need to rely exclusively on captive-born wolves drawn from a captive population which would be much less genetically diverse than it is today.

Rather than acknowledging the urgency of the genetic deterioration of both captive and wild populations, the proposed rule states that the Service will conduct a one-time overall evaluation of the wild population 5 years after the final determination of the rule. No justification is given for this delay in terms of how an additional 5 years would provide information that is not currently available. A similar evaluation has already occurred as part of the suspended recovery planning process, yet the information from that process has been studiously ignored by the Service. Given the urgency of genetic threats, the proposed 5-year delay is inconsistent with the Service's affirmative duty to prevent extinction and secure recovery.

#### **5. Allow dispersal beyond the Mexican Wolf Experimental Population Area (MWEPA), or expand the MWEPA**

Because new releases are vitally important to resolve genetic threats, we support the proposed rule's expansion of the area in which new releases of animals from the captive population are permitted. For similar reasons, expansion of the area in which naturally dispersing wolves would be allowed to establish packs is a long overdue and critically necessary step, which was called for in a 2001 review of the program<sup>13</sup>. However, these steps are not sufficient as proposed. The rule proposes to capture any wolves dispersing beyond the boundaries of the current Mexican Wolf Experimental Population Area (MWEPA), that is, to the north of Interstate 40 in north central Arizona and New Mexico. Recently published analysis<sup>14</sup> suggests that establishment of additional populations will be required to achieve recovery, and that the most suitable habitat to support these populations lies to the north of Interstate 40. A commitment to recapture wolves leaving the MWEPA is thus inconsistent with best available scientific information. Because of the urgent nature of genetic threats to the Mexican wolf, the delay in population establishment caused by capture of dispersing individuals could significantly reduce the likelihood of eventual recovery and delisting of the subspecies.

As currently proposed, revisions to management of the Mexican wolf population condemn the subspecies to a limbo in which extinction may be delayed but recovery of self-sustaining wild

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<sup>13</sup> Paquet, P.C., J. Vucetich, M.L. Phillips, and L. Vucetich. 2001. Mexican wolf recovery: three year program review and assessment. Conservation Breeding Specialist Group, Apple Valley, MN.

<sup>14</sup> Carroll et al. 2013, op. cit.

populations is unlikely to be achieved. We hope that you will consider revision of the proposed rule in order that it may support a strategy for recovery and eventual delisting of this subspecies consistent with the best available scientific information and the mandate of the Endangered Species Act.

Respectfully,

Dominick Dellasala, PhD

President, North America Section, Society for Conservation Biology

Edward J. Heske, PhD

President, American Society of Mammalogists