



May 6, 2013

California Department of Fish and Wildlife
1812 Ninth Street
Sacramento, CA 95811
Attn: Gray Wolf Status Report

Re: Comments of the Center for Biological Diversity on the Listing of the Gray Wolf under the California Endangered Species Act

The Center for Biological Diversity (“Center”) submits the following comments to the California Department of Fish and Wildlife’s (“Department”) for inclusion in its review process of the gray wolf, *Canis lupus*, as a candidate for listing and protection as endangered or threatened under the California Endangered Species Act (CESA), Fish and Game Code section 2050 et seq.¹

We also note that we fully support and agree with the detailed comments that have been submitted to the Department by the Society for Conservation Biology (SCB).

¹ The Center for Biological Diversity is a 501(c)(3) non-profit conservation organization that advocates for endangered species and which has more than 500,000 members and supporters nationwide, more than 70,000 of whom reside in California. The Center is one of four organizations which, on March 5, 2012, petitioned the California Fish and Game Commission (“Commission”) to list the gray wolf under CESA. In response to our petition, the Department prepared a report issued in August 2012 which recommended that listing may be warranted. After considering the Department’s report, written comments submitted by the public and testimony at a public hearing, on October 3, 2012, the Commission accepted our petition, designated the gray wolf as a candidate for listing and directed the Department to conduct a 12-month status review.

The gray wolf is a native species that was once broadly distributed across California, ranging from San Diego northward to the California-Oregon border, and from the coast eastward to California's borders with Nevada and Arizona. As elsewhere across the Lower 48, wolves in California were intentionally extirpated post-European contact. Wolves were mostly gone from California by the late 1800's, with the last known wolf killed in Lassen County in 1924. Across the United States, including in California, wolves were killed to accommodate a livestock industry that was not willing to coexist with them. Wolves are now returning to California as individual animals disperse from adjacent states and make their way into new territory. The information possessed by the Department, combined with information we provide here, and information provided in comments submitted by the Society for Conservation Biology establishes that listing the gray wolf under CESA is warranted. For wolves to successfully return to and reestablish ecologically-functioning populations in California, strong legal protections and management actions directed at recovery and conservation of the species are imperative.

For consideration in its status review, the Department has requested that comments or data be submitted regarding the following subjects: "the taxonomic status, ecology, biology, life history, management recommendations, distribution, abundance, threats, habitat that may be essential for the species in California, or other factors related to the status" of the gray wolf.² Our initial petition addressed all of these criteria. The following comments will focus, however, on the following subjects: the adequacy of existing laws and regulatory mechanisms to recover and conserve wolves in California; threats to wolves; habitat that may be essential for wolves in California; wolf population trends in states from which wolves may disperse to California; archeological evidence of historical wolf distribution, native species status, and history of cultural significance to California native people; and management recommendations for wolves in California. We address these issues now because we have new information we wish to submit that was not available at the time we submitted our petition.

² California Department of Fish and Wildlife "Public Notice", dated February 8, 2013.

Listing The Gray Wolf Under CESA Will Provide The Necessary Legal Protections To Ensure The Species' Recovery And Conservation In California

Wolf recovery efforts in the Lower 48, to date, have depended upon wolves being granted protections under the Federal Endangered Species Act.

A devastatingly-successful campaign to extirpate wolves in this country, beginning at least as early as the 1600's, was waged across the entire country well into the twentieth century. After this national policy of wolf eradication in the United States, the sole reason wolf recovery has occurred anywhere in the Lower 48 is due to legal protections that were eventually granted this species by the Federal Endangered Species Act (ESA).

It was only in 1968, when wolves received protection under a precursor to the ESA (later passed by Congress in 1973), that federal agencies started to plan for the restoration of wolves to their former habitat. After an additional two decades of political battles, gray wolves were finally reintroduced to the northern Rockies region in the mid-1990's, and the tiny remnant population of wolves residing in far northern Minnesota was allowed to expand in numbers and range across the Western Great Lakes region. An additional reintroduction program for gray wolves in the Southwestern U.S. saw its first wolf releases in the late 1990's.

Currently, the gray wolf is federally protected as endangered in much of the Lower 48 in habitat the species used to occupy -- including California.³ Many of the states where federal protections for wolves currently exist contain habitat scientists have identified as suitable for the species. While there have been occasional confirmations over the years of lone wolves dispersing from the recovery areas of the northern Rockies and Western Great Lakes states into nearby states, many of these wolves have been killed by humans. None of these states yet have a resident gray wolf population nor any federal government wolf recovery plan in existence.⁴

³ Exceptions are the northern Rockies and Western Great Lakes recovery areas, from which federal protections were lifted in 2011 and 2012, respectively.

⁴ The sole exceptions are Arizona and New Mexico, whose small population of reintroduced Mexican gray wolves is part of an entirely separate federal wolf recovery area.

Federal protections for wolves in California will soon be removed.

Since at least the year 2000, the U.S. Fish and Wildlife Service (“Service”) has made repeated attempts to reduce or remove federal protections for wolves in California, despite the fact that no confirmed wolves had yet dispersed to the state.⁵ In May of 2011, the Service announced it would conduct a status review for gray wolves in the Lower 48, including the Pacific West region.⁶ The widely-anticipated results of that status review were made known two weeks ago when, on April 25th, a leaked copy of the Service’s Proposed Rule was reported by the LA Times.⁷ The Service’s proposal, which reportedly will be published in the Federal Register sometime in May, seeks to remove all federal protections for gray wolves in most of the Lower 48, with the exception of the Mexican gray wolf, which it would list as an endangered subspecies.⁸

If enacted, the Rule will remove all federal protections for wolves in California, as well as in the nearby states of Oregon and Washington. Wolf populations are just starting to reestablish in these two neighboring west coast states and are the most likely source of wolves that will disperse to California.

⁵ USFWS (U.S. Fish and Wildlife Service). 2000. Proposal to reclassify and remove the gray wolf from the list of endangered and threatened wildlife in portions of the coterminous United States. Federal Register 65(135): 43449-43496; Also, in 2002, the Service denied a petition that had been filed the year prior, by Defenders of Wildlife, to create a Distinct Population Segment (“DPS”) for gray wolves in the Pacific West, in an area representing over 16 million acres of federally-managed lands in southwestern Oregon and northern California. (U.S. Fish and Wildlife Service letter, 2002.)

⁶ USFW (U.S. Fish and Wildlife Service). 2011, May 5. Gray wolf – Proposed Rule to Revise the List of Endangered and Threatened Wildlife for the Gray Wolf (*Canis lupus*) in the Eastern United States, Initiation o Status Reviews for the Gray Wolf and for the Eastern Wolf (*Canis lycaon*); Proposed Rule. 50 CFR Part 17, Federal Register, Vol 76, No. 87, p. 26086.

⁷ Los Angeles Times, April 25, 2013. “U.S. plans to drop gray wolves from endangered list.” Julie Cart. <http://articles.latimes.com/2013/apr/25/local/la-me-wolves-20130426>

⁸ Draft - U.S. Department of the Interior, Fish and Wildlife Service, 50 CFR Part 17 [Docket No. XXXXX] [FXES11130900000C2-123-FF09E32000] RIN 1018–AY00 Endangered and Threatened Wildlife and Plants; Proposed Rule To Remove the Gray Wolf (*Canis lupus*) from the List of Threatened and Endangered Wildlife and Maintain Protections for the Mexican Wolf (*Canis lupus baileyi*) by Listing it as Endangered. 2013.

Most likely, the federal Rule to remove protections for gray wolves here and across most of the Lower 48 will become law. While years of attempts by the Service to remove protections for wolves in the northern Rockies resulted in protracted legal challenges, ultimately Congress stepped in and delisted wolves in that region from the ESA through a rider attached to a federal appropriations bill. A Rule that removes federal protections for wolves in most of the Lower 48 will similarly be subject to lawsuits. There are current efforts in Congress, once again, to step in to undermine the ESA and protections for wolves. Given the direction of federal agencies and Congress to remove protections for wolves in the Lower 48, it is advisable for the agencies and all parties in California to assume that a complete delisting will be the eventual outcome at the federal level.

Absent federal or state listing, legal protections for wolves in California are inadequate to protect, recover and conserve the species.

In October of 2012, the Commission accepted our listing petition and designated the gray wolf species as a candidate for listing in California. While this status grants full protections for gray wolves, as if listed under CESA, the protections are only conferred temporarily until a final listing decision is made. (Fish & Game Code § 2074.2 (a)(2) and § 2075.5.)

Absent federal protections for wolves and listing under CESA, any gray wolves entering California would qualify for designation only as “nongame mammals” under Fish & Game Code § 4150. This designation will allow the unlimited killing of wolves for almost any reason or excuse. Under Fish & Game Code §§ 2000, 4150 and 4152, wolves can be killed if they cause any damage to property. This designation provides no protections for wolves and is subject to unlimited abuse. For example, a rancher might subjectively decide that having wolves in the neighborhood devalues property values and that he or she is justified in killing every wolf in the county.

The statutes that would govern the designation of the wolf and that define the scope of when wolves can be killed are the following statutes:

- Section 2000 provides a general prohibition on take as defined by State law of any bird, mammal, fish, reptile or amphibian, except as provided by other provisions of the Fish & Game Code or state law or regulation.
- Section 4150 designates nongame mammals as being “[a]ll mammals occurring naturally in California which are not game mammals, fully protected mammals, or fur-bearing mammalsNongame mammals or parts thereof may not be taken or possessed except as provided in this code or in accordance with regulations adopted by the commission.”
- Section 4152 provides that “(a) Except as provided in Section 4005, nongame mammals . . . that are found to be injuring growing crops or other property may be taken at any time or in any manner in accordance with this code and regulations adopted pursuant to this code by the owner or tenant of the premises or employees and agents in immediate possession of written permission from the owner or tenant thereof. They may also be taken by officers or employees of the Department of Food and Agriculture or by federal, county, or city officers or employees when acting in their official capacities”

In the northern Rockies, humans are the largest cause of wolf mortality and the only cause that can significantly affect populations at recovery levels. (USFWS 2000; Mitchell et al. 2008; Murray et al. 2010, Smith et al. 2010.)⁹ While wolves were federally listed in the northern Rockies, the chief cause of wolf deaths occurred when agencies killed them in response to wolf-livestock conflicts. Other significant causes of wolf deaths include illegal poaching, vehicle collisions and inter-pack strife. (Smith et al., *supra*, 2010.) In California, absent federal or state

⁹ USFWS (U.S. Fish and Wildlife Service). 2000. Proposal to reclassify and remove the gray wolf from the list of endangered and threatened wildlife in portions of the coterminous United States. Federal Register 65(135): 43449-43496; Mitchell, M.S., D.E. Ausband, C.A. Sime, E.E. Bangs, J.A. Gude, M.D. Jimenez, C.M. Mack, T.J. Meier, M.S. Nadeau, and D.W. Smith. 2008. Estimation of successful breeding pairs for wolves in the northern Rocky Mountains, USA. Journal of Wildlife Management 72:881-891; Murray, D.L., D.W. Smith, E.E. Bangs, C. Mack, J.K. Oakleaf, J. Fontaine, D. Boyd, M. Jimenez, C. Niemeyer, T.J. Meier, D. Stahler, J. Holyan, and V.J. Asher. 2010. Death from anthropogenic causes is partially compensatory in recovering wolf populations. Biological Conservation 143:2514-2524; Smith, D.W. Smith, E.E. Bangs, J.K. Oakleaf, C. Mack, J. Fontaine, D. Boyd, M. Jimenez, D.H. Pletscher, C. C. Niemeyer, T.J. Meier, D. R. Stahler, J. Holyan, V.J. Asher and D.L. Murray. 2010. Survival of colonizing wolves in the northern Rocky Mountains of the United States, 1982-2004. Journal of Wildlife Management 74:620-634.

listing, the self-help provisions of Fish & Game Code § 4152 would result in an inordinate amount of take of wolves by property owners applying their own definition of what constitutes “injuring . . . property.”

Because of its conservation mandate, CESA listing will provide the legal protections essential to achieve wolf recovery in the State.

Based on the inadequacy of protections for wolves pursuant to these general State wildlife statutes, and the impending and near-certain removal of federal protections for wolves in California, listing the gray wolf under CESA is imperative to recover and conserve the species here. It would also be in keeping with California’s strong legacy of protecting endangered and rare species that are part of the State’s natural history and cultural heritage.

In fulfilling its duties pursuant to CESA, the Department should err on behalf of wildlife and conservation. Listing of species should not be seen as a burden to people or property; rather, as CESA itself states, conservation of wildlife is fundamental to our well being: “these species of fish, wildlife, and plants are of ecological, educational, historical, recreational, esthetic, economic, and scientific value to the people of [California], and the conservation, protection, and enhancement of these species and their habitat is of statewide concern.” Fish and Game Code, § 2051.

The purpose of the California Endangered Species Act (“CESA”) is “to conserve, protect, restore, and enhance any endangered species or any threatened species and its habitat.” Fish and Game Code, § 2052.¹⁰ CESA and its implementing regulations mandate that a species “shall be

¹⁰ CESA defines an “endangered species” as “a native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.” CFGC § 2062. A “threatened species” is “a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future” CFGC § 2067.

listed if its continued existence is in serious danger or is threatened by . . . present or threatened modification or destruction of its habitat, overexploitation, predation, competition, disease, or other natural occurrences or human-related activities.” 14 CCR § 670.1.

CESA ensures the overall conservation of listed species. State agencies have a duty to not approve projects that would result in the “destruction or adverse modification of habitat essential to the continued existence of [any endangered or threatened species] if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy.” (Fish and Game Code, § 2053.) Section 2053 further states that “it is the policy of this state and the intent of the Legislature that reasonable and prudent alternatives shall be developed by the department, together with the project proponent and the state lead agency, consistent with conserving the species, while at the same time maintaining the project purpose to the greatest extent possible.” Section 2055 also declares that “all state agencies . . . shall seek to conserve endangered species . . .” (Fish and Game Code, § 2055.) “Conserve . . . means to use, and the use of, all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary. (Fish and Game Code, § 2061.)

Both the legislature and the courts have made clear that California “has been at the forefront of enacting legislation to protect endangered and rare animals [L]aws providing for the conservation of natural resources such as the CESA are of great remedial and public importance and thus should be construed liberally.” *California Forestry Assn. v. California Fish & Game Comm.*, 156 Cal. App. 4th 1535, 1540, 1546 (Cal. App. 3d Dist. 2007). The State should remain at the forefront when it comes to protecting an apex predator whose presence was, for thousands of years, part of the fabric of California’s natural history, and whose recovery will restore ecological processes that have been missing from its landscape due to this species’ absence.

We are concerned that, in its evaluation of the listing petition, the Department has characterized the petition’s contents as not having scientific certainty. CESA, however, should be interpreted as requiring the best scientific information available as opposed to requiring scientific certainty.

CESA was modeled on the federal ESA, and the two statutes contain very similar substantive and procedural provisions. California Courts have explained that “it is a basic premise of statutory construction that when a state law is patterned after a federal law, the two are construed together.” *NRDC v. California Fish & Game Comm.*, 28 Cal. App. 4th 1102, 1118 (1994), citing *Moreland v. Department of Corporations*, 194 Cal. App. 3d 506, 512-13 (1987).

Federal courts interpreting the federal ESA have repeatedly stressed the fact that agency decisions are to be based upon best available scientific information. For instance, a federal district court has stated the following:

The [ESA] contains no requirement that the evidence be conclusive in order for a species to be listed. Application of such a stringent standard violates the plain terms of the statute . . . Congress repeatedly explained that it intended to require the FWS to take preventive measures before a species is ‘conclusively’ headed for extinction. The purpose of creating a separate designation for species which are ‘threatened’, in addition to species which are ‘endangered’, was to try to ‘regulate these animals before the danger becomes imminent while long-range action is begun.’

The FWS itself has taken the position that it need not, and must not, wait for conclusive evidence in order to list a species. For example, in its decision to list the northern spotted owl, it explained that because the agency had ‘used the best data available to prepare the proposed rule’, it was ‘not obligated to have data on all aspects of a species’ biology prior to reaching a determination on listing’. Moreover, the agency concluded that ‘to withdraw the proposal and conduct additional research would not improve the status of the [species] and would not be in keeping with the mandates of the Endangered Species Act.’ More recently, the FWS decided to list the California red-legged frog, even though many aspects of the species’ status were ‘not completely understood’, because ‘a significant delay in listing a species due to large, long-term biological or ecological research efforts could compromise the survival of the [species].’

The ESA does not . . . require . . . ‘certainty’ to justify the listing of a species. To the contrary, the clear intent and purpose of Congress in enacting the ESA was to provide preventive protection for species before there is ‘conclusive’ evidence that they have become extinct.

Defenders of Wildlife v. Babbitt, 958 F.Supp. 670, 679-81 (D.D.C. 1997) (internal citations omitted).

Thus, while the Department’s recommendation of whether to list the wolf must be based on the “best available science” nowhere does CESA indicate that for the listing threshold to be met there must be “scientific certainty.” The information we submitted concerning range, distribution, abundance, habitat that is essential for the species’ continued existence and threats faced by the species is the best available scientific evidence and is substantial. It is worthy of being the basis for the Department’s decision and it is sufficient to meet the threshold for listing. Given the current situation of wolves in California, waiting for “certainty” would imperil the species here further, and would violate CESA’s purpose and intent.

Developing a State wolf plan is not a replacement for listing the species under CESA

While the State is considering whether to list the gray wolf under CESA, the Department is simultaneously coordinating a stakeholder process to draft a state wolf conservation and management plan. These are two separate processes, each with its own unique purposes and goals. The development of a state plan with conservation-oriented goals and recommended actions, alone, is not a sufficient surrogate for listing under CESA. The listing of the gray wolf under CESA is the best vehicle to ensure successful recovery of the species. Information learned during that procedure can be incorporated into a state wolf plan.

THREATS TO GRAY WOLVES IN CALIFORNIA WARRANT LISTING THE SPECIES UNDER CESA

Listing of the gray wolf as an endangered species under CESA is warranted because of direct and indirect threats to the continued existence of this species. Threats to the survival of wolves are most dire during the period in which they begin dispersing into new territory and during the time that their numbers remain low, such as the movement of wolves now into California. When wolves exist in healthy, stable packs, the same threats do not carry the equivalent potential for total devastation. Now is the time and the phase of wolf recovery in California when the wolf needs protections the most.

The Department prepared a report in response to our listing petition. Among its many conclusions, the report asserted that “factors affecting the ability of wolf populations to survive and reproduce in California cannot be accurately projected or scientifically confirmed at this time.” (“Department Listing Petition Report” at pp. 22-23.)¹¹ The Report further concluded that “. . . the Department is not aware of any evidence indicating that the single wolf traveling through a number of counties in California, OR7, has experienced any direct threats by humans” and that “[u]ntil other wolves occur in California and related studies are conducted, . . . there is no scientific certainty at this time with respect to the nature and extent that humans will pose a threat to wolves in California.” (*Id.* at p. 24.)

In response, the Center contends that there is substantial and incontrovertible evidence of the nature and extent that humans will pose serious threats to wolves in California, although evidence may not quite reach the level of scientific “certainty” which, as noted before, is not a necessary or wise threshold. When the report was issued in August 2012, verifiable factual evidence of threats to wolves in California had already begun to appear and have continued to materialize.

¹¹ State of California Natural Resources Agency Department of Fish and Game “Report to the Fish and Game Commission: Evaluation of the Petition from the Center for Biological Diversity, Big Wildlife, The Environmental Protection Information Center, and the Klamath-Siskiyou Wildlands Center to List Gray Wolf (*Canis lupus*) as an Endangered Species under the California Endangered Species Act. August 1, 2012.”

Threats exist of potential predation by humans on wolves in California.

With the exception of wolves living in core-protected areas such as National Parks where they are not subject to human exploitation, the leading cause of death for wolves is some form of action by human beings. In one study which covered the period from 1982-2004, in the northern Rockies, 80% of wolf-mortalities were from human causes including agency lethal control actions, poaching and vehicle collisions. (Smith et al. 2010, *supra*). In Washington, where wolves are just starting to return, only two years after the Lookout Pack was confirmed in 2008 as that State's first breeding pair with pups in nearly 70 years, a family from Twisp poached nearly the entire pack.¹² As lone, dispersing Idaho wolves began to make their way into Oregon, four of the first five were found dead, two of them illegally shot and one struck by a vehicle. (Oregon Wolf Conservation and Management Plan at p. 1.)¹³

In the United States, whenever and wherever wolves have traveled into rural territories where livestock and agriculture interests predominate, the wolf has been met by illegal and violent poaching; by politicians boasting they were willing to defy the law and kill wolves on sight; by angry, organized protestors, and by widespread overt expression by community members of a desire and a willingness to kill wolves. Post-federal-delisting, the state-sanctioned hunting seasons in Idaho, Wyoming and Montana in 2011-2013 unleashed this desire for the kill, and the invitation to kill was met with enthusiasm.

As will be shown immediately below, the evidence is abundant and irrefutable that the wolf will be subjected to the same threats in the same degree when it travels into many of the rural areas of Northern California. One can examine the history and facts from the northern Rockies and compare those facts to recent events in many communities in Northern California, and the conclusion is inescapable. Based upon those facts and comparisons, one can say with a high

¹² Wolf poachers get more than slap on wrist. <http://blog.seattlepi.com/seattlepolitics/2012/07/11/wolf-poachers-get-more-than-slap-on-wrist/>

¹³ Oregon Wolf Conservation and Management Plan. Oregon Department of Fish and Wildlife. December 2005 and updated 2010.

predictive confidence that the wolf in California will face the same threats it has encountered in every state it has wandered into.

Indirect threats

Since late December of 2011 until the present, as OR-7 first approached and then crossed over the border into California, countless verbal and written threats have been made in California against wolves generally and against OR-7 specifically. Some of these threatening statements have been made by elected county officials from northern California counties where OR-7 was traveling. These statements have been documented in published newspaper articles, captured in archived audiotape recordings of public hearings, and heard first-hand by members of the public in attendance at the hearings. Examples include:

- “People are pretty much at their wits' end trying to make a living with all the environmental protections that are being foisted upon them,” she said. As for wolves, “we would like to see them shot on sight.” -- Statements made by the chair of the Siskiyou County Board of Supervisors, as reported in a December 24, 2011 Los Angeles Times article.¹⁴
- “If I see a wolf, it's dead.” -- Statement repeatedly made by a Modoc County Supervisor during a January 24, 2012 public board of supervisors meeting recorded in online archival audiotapes retained by the County.¹⁵
- “If I see an animal in my livestock, I kill it. If I kill a wolf, you going to throw me in jail? I don't care what it is.” -- Rhetorical query by a County supervisor to the Department's spokesperson during a February 21, 2012 public meeting of the Lassen County Board of Supervisors.¹⁶

¹⁴ Los Angeles Times, December 24, 2011. “A lone wolf heralds the return of a mythic predator.” Bettina Boxall. <http://articles.latimes.com/2011/dec/24/local/la-me-wolf-oregon-20111225>

¹⁵ Modoc County Board of Supervisors January 24, 2012 hearing, audio-archives available at www.co.modoc.ca.us/departments/board-of-supervisors/agenda-minutes-audio/

¹⁶ Lassen County Board of Supervisors hearing, February 21, 2012. (from A. Weiss' notes taken at the hearing.)

From the time OR-7 arrived in California, threats against wolves and against OR-7 have also been made by California citizens in comments posted on the internet in response to online news stories.

Verbal threats by County officials were made under circumstances in which wolves were not actually present nor is there evidence that any of the individuals making the threats were capable of carrying them out. These statements are thus best characterized as indirect threats.

Nevertheless, it is disheartening -- and inappropriate -- for elected government representatives to proclaim that they would break the law and kill a species that is a federally-protected animal.

These statements conflict with the oaths the officials undoubtedly took to uphold the law, and these statements serve as encouragement for local residents who are opposed to wolves to feel as though they could take action against wolves with impunity.

Direct threats

In its report evaluating our listing petition, the Department offered the following conclusions regarding direct threats to wolves in California: “The Department has received some input from residents and local government representatives expressing concern about OR7 and possibility of other wolves in California generally, but no related incidents have prompted or otherwise required the Department to intervene. . . . Until other wolves occur in California and related studies are conducted, however, there is no scientific certainty at this time with respect to the nature and extent that humans will pose a threat to wolves in California.” (Petition Evaluation Report at p. 24) We disagree. There exist known, direct physical threats by humans to the safety of wolves entering California.

As the Department is aware, a privately-sponsored coyote contest-hunt took place across Modoc, Siskiyou, Shasta and Lassen counties this year, last year and during the five years prior. These counties encompass a substantial amount of the terrain where OR-7 was traveling and are the pathway through which any wolves dispersing from Oregon would enter into California. Despite great public outcry, the 2013 contest-hunt proceeded, 42 coyotes lost their lives to 90 two-man teams, and the Modoc County sheriff’s opinion piece published in the local newspaper one day

before the contest's start advised participants to violate federal lands hunting laws and to stand their ground if anyone challenged them.¹⁷

Much of the vocal opposition to the return of wolves to California has come from residents of the counties in the North State area. Op-ed articles like that of the sheriff's, letters to the editor in local newspapers, and statements made by public officials and private citizens regularly endorse taking actions that would violate federal or state laws regarding public lands, endangered species protections, or restrictions on hunting or trapping of wildlife. As an example, the coyote contest-hunt was advertised by its sponsors as spanning across private and public lands through the four-county region, despite legal prohibitions against – or the requirement to first obtain a special use permit for -- predator-hunting in various federally-managed lands, as well as in wildlife areas managed by the Department. Anti-government, anti-wildlife-and-environmental-protection attitudes exist, they will always exist, and they pose a serious threat to the recovery of wolves in the region.

The coyote contest-hunt has resulted in the Department intervening expressly to prevent harm to any endangered wolves that could be in the area, in both 2012 and 2013:

- Although conservation and animal-protection organizations were not aware in 2012 that coyote contest-hunts existed in California and that one took place annually in the North State region, the Department was aware of the 2012 coyote contest-hunt and was sufficiently concerned for OR-7's safety then that, on its own, it increased agency presence in the region during the weekend of the hunt.¹⁸

¹⁷ 42 coyotes reportedly killed in hunting contest. SFGate blog, peter Fimrite. March 4, 2013. <http://blog.sfgate.com/stew/author/pfimrite/page/2/>; In a letter to the editor of the Modoc County Recorder on Feb. 7, Modoc County Sheriff Mike Poindexter said he won't "tolerate any restriction of legal hunting on our public lands" despite federal laws prohibiting or regulating coyote hunting on federal lands in and near Modoc County. The sheriff also recommended that any hunt participant who is questioned or detained by federal enforcement officials for illegally hunting on federal lands to "cooperate but stand their ground and call the Sheriff's Office" and that sheriff deputies "absolutely will not tolerate any infringement upon your liberties pertaining to accessing or legally hunting on your public lands."

¹⁸ "Fish & Wildlife officials say the hunt is legal and there's nothing they can do to stop it. They were more concerned last year when OR7 was in the same county as the hunt and sent wardens to educate

- After concerned citizens and organization representatives testified at a February 5th, 2013, Fish and Game Commission hearing to oppose the contest's reckless killing of coyotes and endangerment of wolves, the Department agreed to send agency staff to the contest to advise participants it is illegal to kill a wolf, how to distinguish wolves from coyotes, and to monitor the situation to prevent violations of law.¹⁹

Wolves and coyotes are commonly mistaken for one another. The Department is aware of this and has even included statements to this effect in reports it has published regarding wolves.²⁰ Lone wolves dispersing into states that have not had wolves present for decades have been mistaken for coyotes and shot by hunters.²¹

The coyote contest-hunt was widely-covered by California news outlets, and the Department was quoted extensively. In one media report, the Department's representative expressed puzzlement

hunters." Groups trying to protect wolf oppose coyote hunt. San Jose Mercury News, Feb 1, 2013. http://www.mercurynews.com/breaking-news/ci_22500263/groups-battle-over-coyote-hunt-wolf-territory

¹⁹ California Fish and Game Commission February 5, 2013 public meeting.

²⁰ "Wolves are often mistaken for coyotes . . ." (Gray Wolves in California Report at p. 11); "Wolves are often confused with coyotes (*Canis latrans*) . . ." (Department Listing Petition Report at p. 6).

²¹ On January 29, 2013, the U.S. Fish and Wildlife Service confirmed that a large canine shot by a coyote hunter in Kansas was a wild wolf - the first instance of a wolf in Kansas in almost 75 years. See Corn, M. Jan. 29, 2013. "DNA Tests Confirm Animal Was a Wolf," The Hays Daily News. (accessed online on 1.29.13 at <http://www.hdnews.net/Story/wolfkilled012913>). See also, e.g., WolfPark.org/coyotes ("The coyote is often mistaken for the larger, bulkier wolf, especially when only glimpsed in fading light or behind foliage."); www.arizonahuntingtoday.com ("A 70-pound female wolf was shot and killed Jan. 25 by a coyote hunter in Roberts County. Wolves are protected under the Endangered Species Act and state law, and it is illegal to kill them, according to U.S. Fish and Wildlife Service and state Game, Fish and Parks Department officials. People who plan to hunt coyotes in northeastern South Dakota, particularly in northern Roberts County, must make sure the animal is definitely a coyote and not a wolf."); Montana Fish, Wildlife & Parks (fwp.mt.gov/search) ("It is sometimes hard to tell the difference between wolves and coyotes, especially from a distance."); Michigan Wolf Management Plan (July 10, 2008) at 34 ("Other regulations could protect the wolf population in more-specific ways. For example, in recent years, the coyote season has been closed in the UP and the northern LP during the November 15–30 firearm season to help prevent the killing of wolves misidentified as coyotes. This restriction and other regulations will be reviewed, modified or enacted as necessary to provide the wolf population with appropriate levels of protection.") (available at: http://www.michigan.gov/documents/dnr/Draft_Wolf_Management_Plan_030708_227742_7.pdf).

that conservation groups and the public were not equally concerned for OR-7's safety while he was in Tehama County during deer-hunting season – a clear signal from the Department that it recognizes that wolves are placed at risk during big game hunting seasons, as well.²²

While there are many responsible hunters, there are others who do not wait to properly identify their target before pulling the trigger or releasing their arrow. Yet others may knowingly violate the law if they find themselves faced with the opportunity to take a wolf and the poaching statistics previously cited in our comment letter support this concern. Because of the potential for either of these scenarios to exist, in which a hunter “steps over the line” and injures or kills a wolf, hunting season is always going to be a danger to wolves.

HABITAT THAT MAY BE ESSENTIAL FOR THE SPECIES IN CALIFORNIA HAS BEEN SCIENTIFICALLY-DETERMINED

The Center's listing petition provided information based on published, peer-reviewed, scientific modeling studies that have identified habitat in California that is deemed potentially suitable for a population of wolves.²³ While wolves are habitat generalists and can live just about anywhere that humans will tolerate them, the species does best in areas where there is sufficient adequate prey and reduced potential for human-caused mortality. Since the potential for such mortality is correlated with human population density and road density, wolves fare better in locales where both humans and roads are present in low densities. The modeling studies we referenced identify potential suitable wolf habitat in California based on these parameters. Since the modeling

²² While we are not personally aware of reported incidents in which wolves have been shot after being mistaken as a deer, we are aware of an instance that was reported in Minnesota in the late 1990's-early 2000's in which a wolf may have mistaken a deer-hunter for a deer. In that incident, the hunter was in the woods and had spilled bottled deer urine on himself to mask his human scent. He reported to officials and the media that a wolf had come running at him, landed on his shoulder and then kept running. Speculation among wildlife officials at the time was that the wolf thought the man was a deer but on closer inspection discovered its mistake. (Personal recollection by A. Weiss of the reported incident.)

²³ Carroll, C. et al. 2001. Is the return of the wolf, wolverine and grizzly bear to Oregon and California biologically feasible? In D. Maehr, R. Noss and J. Larkins (eds.). Large mammal restoration: ecological and sociological implications. Island Press, Washington, D.C.; Carroll, C., et al. 2006. Defining Recovery Goals and Strategies for Endangered Species: the Wolf as a Case Study. *BioScience* 56:25-27.

results exclude other land areas, they necessarily indicate habitat which may be essential for wolves in California.

The Department insists the referenced studies by Carroll et al. require ground-truthing and “cannot be relied upon at this time to predict wolf habitat suitability or population density and trend in California with scientific certainty.” The threshold for listing a species under CESA does not require that the science considered in the evaluation process have “certainty”, only that the “best available science” be used.

In its comment letter to the Department, the Society for Conservation Biology (SCB) expresses deep concern that the Department’s response is to ignore or discount this peer-reviewed and scientifically-accepted modeling methodology and its research results. In its evaluation of gray wolf status in the Pacific West states, the U.S. Fish and Wildlife Service found the Carroll et al. studies’ results sufficiently robust to rely on them. It also found modeling studies by other researchers supported the Carroll et al. results.²⁴ (*See, also*, SCB gray wolf CESA listing comments, Figure 2.) The fact that the Service relied on those studies, we hope, will cause the Department to reconsider its conclusion about the Carroll et al. studies.

During the 15 months of his travel within California, as well as during the months he has spent in adjacent southwestern Oregon, OR-7 has done a considerable amount of ground-truthing of his own. As the map on the following page demonstrates, OR-7 has wandered, and slept, and hunted, and fed, and sustained himself entirely within the bounds of the habitat identified in the modeling studies. (Figure 1.)

Given that the maps generated by these modeling studies are based on criteria that best predict where wolves will be able to survive and maintain viable populations, we believe they are scientifically-credible and reliable indicators of habitat that may be essential for this species in California.

²⁴ Oakleaf, J.K. et al. 2006. Habitat Selection by Recolonizing Wolves in the Northern Rocky Mountains of the United States, *Journal of Wildlife Management* 70(2):554-563; Larsen, T. and W.J. Ripple. 2006. Modeling gray wolf (*Canis lupus*) habitat in the Pacific Northwest, U.S.A. *Journal of Cons. Planning*, 2(1):30-61.

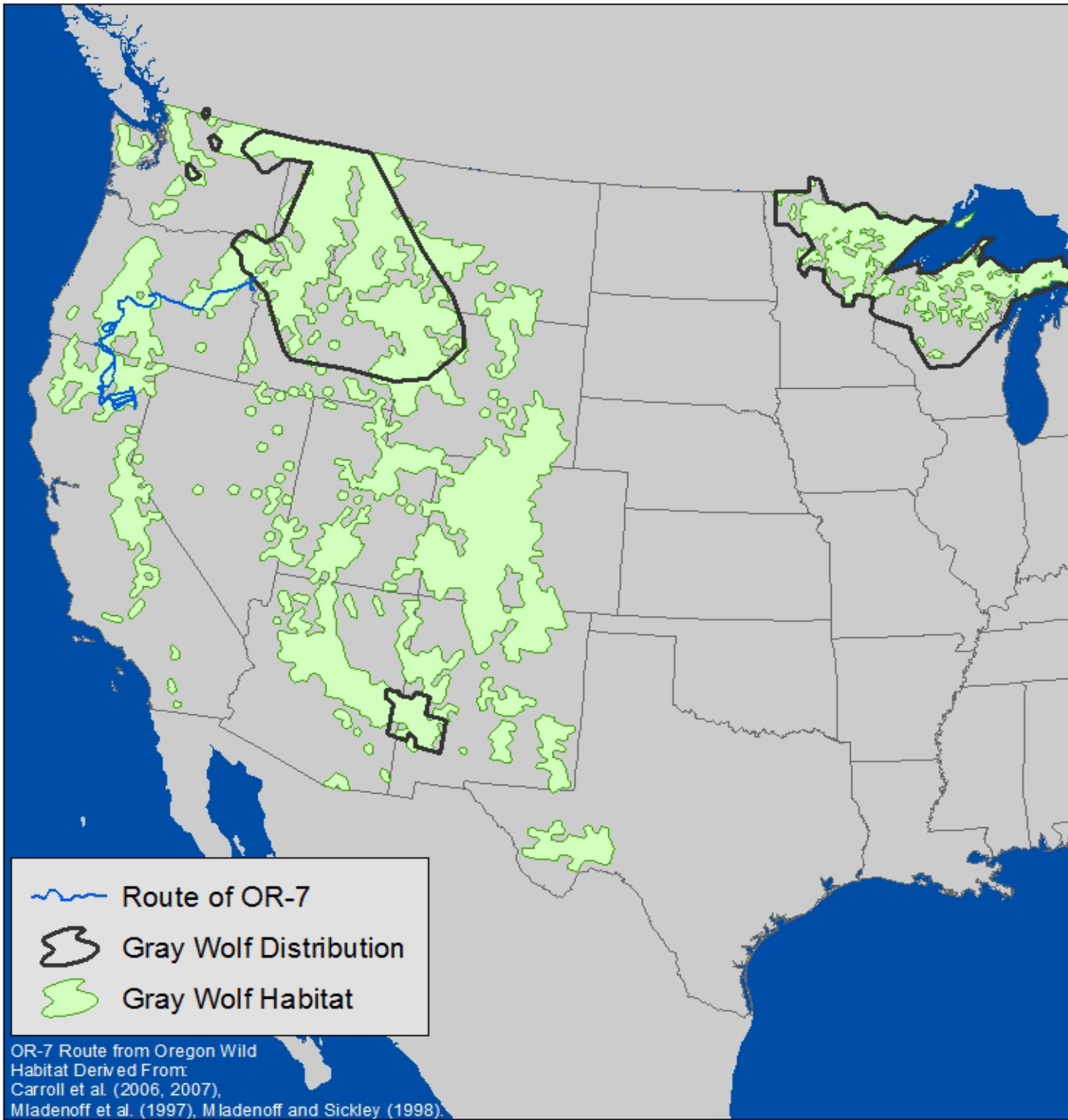


Figure 1. Map of suitable wolf habitat in California, with OR-7's travels digitized and overlaid. Map created by Curt Bradley / Center for Biological Diversity

WOLF POPULATION TRENDS IN OREGON AND WASHINGTON SUPPORT THE LIKELIHOOD MORE WOLVES WILL DISPERSE TO CALIFORNIA IN THE FUTURE

Our listing petition noted that California can anticipate the arrival of more dispersing wolves from Oregon, as the wolf population in Oregon increases. The Department, however, concluded that whether Oregon's wolf population would continue to increase could not be determined with "scientific certainty." (Listing Petition Evaluation Report, *supra*, at p.14.)

We reiterate that CESA does not require "scientific certainty" -- however, natural reproduction by Oregon's wolves over the past year has resulted in the addition of some data points. In the 12 months since our listing petition was filed, the Oregon wolf population nearly doubled, from 29 wolves in Feb 2012 to 47 wolves in March 2013. There are now six confirmed packs and six breeding pairs in Oregon. (ODFW website page on gray wolves, *supra*.)

The state of Washington is another potential source of wolves that could disperse to California. Its wolf population also has nearly doubled in the same 12-month period, from 27 confirmed wolves in February 2012, to a minimum of 51 wolves as of February 2013. (Washington Department of Fish and Wildlife February 15 2013 news release.)²⁵ Wolves from British Columbia have dispersed to Washington's North Cascades Ecosystem where three wolf packs have established. There are an additional seven packs in the northeastern part of the State, a pack whose territory straddles the border with British Columbia, and several probable but yet unconfirmed packs. The spine of the Cascade mountain range runs south through Oregon and deep into northern California and could provide a travel corridor for wolves to disperse from Washington to California.

In every state in which wolves have been re-introduced or into which they have dispersed, their numbers have dramatically increased so long as they were the beneficiaries of state or federal

²⁵ <http://wdfw.wa.gov/news/feb1513a/>

protections.²⁶ Those states include Idaho, Wyoming, Montana, Oregon and Washington, as well as Wisconsin and Michigan. In these states, successful reproduction and dramatic population increases occurred 100% of the time. Oregon and Washington have wolf management plans. The wolf is protected as an endangered species under Oregon and Washington state law. Wolves in Oregon and Washington will increase in numbers. Some of those wolves will move to California. That is the nature of this apex predator.

The Department has on several occasions indicated it has not found credible evidence of other wolves in California. Neither staff biologists monitoring for other species nor automated trail cameras installed in northern California counties have discovered evidence of other wolves in the region. During the 15 months that OR-7 traveled in these same areas, his presence and whereabouts were known only due to the satellite information provided by his GPS radio-collar. OR-7 has never been photographed by any of the trail cameras, and has been confirmed to have been seen by humans on only three occasions – once by Department biologists and twice by private citizens. He has been so nearly-invisible that some refer to him as the “ghost wolf.” Given the doubling of the wolf populations of Oregon and Washington and the naturally-elusive behavior of the species, it is likely other wolves will in the future disperse to or may have already arrived in California.

ARCHEOLOGICAL FINDINGS PROVIDE EVIDENCE OF THE DISTRIBUTION, NATIVE STATUS AND HISTORICAL AND CULTURAL SIGNIFICANCE OF THE GRAY WOLF IN CALIFORNIA

Archeological and anthropological evidence of the historic range and distribution of wolves in California, including some published research on the topic, is known to the Department and has been discussed in some of its wolf reports. We provide here additional relevant evidence for consideration in the Department’s gray wolf listing status review. The following scientific evidence confirms the presence of wolves in California as far back as 4300 years ago.

²⁶ The wolf populations in the states of Arizona and New Mexico, while reintroduced through a federal government program, cannot be characterized as having had the full benefits of federal protections, since the politics in that region have placed the federal recovery program in a state of disarray and the reintroduced wolf population there has, as a result, struggled mightily to survive.

Muwekma Ohlone “Kaphan Umux” (Three Wolves) archeological site.

Three research publications provide relevant information regarding wolf distribution, native status of the species and historical evidence of the cultural significance of wolves to some of California’s native people. All three papers involve research and analysis derived from an archeological site excavated near San Jose under the direction of Ohlone Families Consulting Services (OFCS), the archaeological consulting firm of the Muwekma Ohlone Tribe. Staff from the Center has previously discussed these research papers with the Department and we believe the Department has copies of all three. We submit the papers’ citations for inclusion in the Department’s status review for listing the gray wolf under CESA:

- Field, L.W. and A. Leventhal. "What Must It Have Been Like!": Critical Considerations of Precontact. Ohlone Cosmology as Interpreted through Central California Ethnohistory. *Wicazo Sa Review*, Volume 18, Number 2, Fall 2003, pp. 95-126 (Article). Published by University of Minnesota Press. *DOI: 10.1353/wic.2003.0013*.
- Jones, Barbara L. 2010. *Mythic Implications Of Faunal Assemblages From Three Ohlone Sites*. A thesis submitted to the faculty of San Francisco State University in partial fulfillment of the Requirements for the degree Masters of Arts in Anthropology. San Francisco, California. January 2010. 226 pp.
- Cambra, R., Leventhal, A., Jones, L., Hammett, J., Field, L. Sanchez, N. [Ohlone Families Consulting Services] and R. Jurmain [San Jose State Academic Foundation]. 1996. *Archeological Investigations at Kaphan Umux (Three Wolves) Site, CA-SCL-732: A Middle Period Prehistoric Cemetery on Coyote Creek in Southern San Jose, Santa Clara County, California*. Prepared for the Santa Clara County Traffic Authority and the California Department of Transportation, District 4. 568 pp.

A description of the site and findings as it relates to wolves is summarized, in part, in the following quoted portions from the Field and Leventhal paper:

“In the summer months of 1992, an archaeological excavation took place south of San José, California, under the direction of Ohlone Families Consulting Services (OFCS), the archaeological consulting firm of the Muwekma Ohlone Tribe. Members of the tribe unearthed the skeletal and artifactual remains of their ancestors, which were buried in two separate cemeteries that have been dated to 3000 and 1500 B.P., respectively. The Muwekma called the site (CA-SCL-732) *Kaphan Umux* or Three Wolves site, because the remains of three wolves, in addition to a number of other animal remains, were ritually interred among the human burials. . . . The animals buried at CA-SCL-732 included the whole bodies of three wolves interred in two graves. A sample of charcoal found in association with the single wolf burial and a sample of its bone generated dates of 1500 ± 30 and 2700 ± 80 B.P., indicating interment during Phase II of the Late Period. Two additional wolf skeletons were found in another grave with braided, uncharted yucca or soap root fiber cordage around their necks. The estimated age for these wolves has been determined from the uncharted cordage as 4370 ± 90 B.P. . . . By “ritual burial,” we mean the deliberate integral of deceased animals or their body parts, often (but not always) accompanied by nonperishable grave goods, such as shell beads and ornaments, and other symbols of status (e.g., exotic materials) used in central California cultural systems, or the placement of animal parts in conjunction with the human burials.” (Field and Leventhal, 2003 at pp. 95-96.)

San Francisco excavation site yields pre-historic wolf bone / New study launched.

Within the past year, additional evidence has been discovered of wolf presence in the Bay Area, during the time before European contact. In 2012, in a prehistoric midden excavation in San Francisco, senior faunal analyst and archeological specialist Michael Stoyka of the Anthropological Studies Center at Sonoma State University (SSU) found a bone in the collection which he has identified as the fifth metatarsal bone from a wolf. (Figure 2.)

The SSU Anthropological Studies Center is now engaged in exploratory investigations aimed at discovering the distribution of *Canis lupus*, the gray wolf, in California, prior to AD 1750 (pre-European contact). Their research results ultimately will provide information that will deepen

the public's understanding of just how long gray wolves have been a part of California's natural history and heritage.



Figure 2. Wolf fifth metatarsal bone from excavation site in San Francisco, California that is 1200-1900 years old. In the figure, the dark-colored bone is the identified wolf bone. Above it are fifth metatarsals of a coyote and of a very large dog for size comparison. Sonoma State University Anthropological Studies Center. Photograph by Amaroq Weiss, October 2012.

MANAGEMENT RECOMMENDATIONS

The recovery and conservation of wolves in California will take place in an atmosphere in which wolf management, post-federal delisting, has become even more contentious than when wolves were under federal control. It is likely the Department will come under tremendous political pressure to manage wolves in ways to keep the species' population at bare minimum levels, relegated to tiny patches of habitat, and lethally-controlled in response to conflicts. We believe California is able to take a different route. As has been the case with mountain lions in California, scientific studies that demonstrate the critical role of apex predators has resulted in

enhanced public appreciation and tolerance for coexisting with these species. Department policies and management strategies continue to evolve to reflect modern scientific understandings that ecosystems missing their top predators are impoverished landscapes, and that we can find ways to coexist with species like mountain lions and wolves.

Wolves in California should be managed according to the following principles:

- Wolf management should focus on conserving the species using an ecosystem-based approach. Efforts should focus on methods and strategies that will encourage populations of wolves to recover at numbers sufficient to restore ecologically-functioning relationships between wolves and their prey and the other plant and animal species and processes that make up a healthy ecosystem.
- Recovering and conserving wolves will require that they be allowed to develop populations across a range of habitats in areas where they can thrive. Long-range dispersal is an essential part of the life history of wolves and conservation measures implemented should allow for wolves to naturally distribute across all suitable habitat within the State.
- Wolves are habitat generalists and can live wherever humans will tolerate them. However, wolves do best in areas of low human settlement, few roads and where there is a good prey base. Habitat in California that fit these criteria should be protected against increased development of roads and human incursions, and should be managed to provide good habitat for elk and deer, the primary prey base for wolves in the western United States.
- While protected as endangered or threatened under State law, wolves should not be killed to prevent or resolve conflicts (except in defense of human life). Once recovered and delisted, lethal control for livestock-conflicts should be a last resort, after all feasible, circumstance-appropriate nonlethal tools and strategies have been exhausted. Wolves should never be killed for resolving conflicts related to wolf-livestock interactions that take place on open-range public lands.

- As highly social animals, wolves live in multi-generational family packs that help in pup-rearing, hunting and maintaining territories. Management of wolves has often relied heavily on killing wolves as a response to wolf-livestock conflicts. However recent experience suggests that killing members of wolf packs in fact increases the potential for more conflict. In Idaho last year, hundreds of wolves were killed in state-sanctioned hunting and trapping. Nevertheless, wolf-livestock conflict in Idaho rose nearly 75% above levels that had occurred there prior to the institution of wolf-hunting and trapping following federal delisting. Killing older, more experienced animals puts the pack social hierarchy into disarray and may cause packs to splinter. Without experienced leaders to guide the pack or to instruct young wolves how to hunt wild prey, more wolf-livestock conflict, not less, can be the result. Wolf management in California should take into account the vital need for wolf packs to remain intact and should use non-lethal methods to prevent and resolve any conflicts which may occur.
- Public lands grazing allotments in areas of good wolf habitat should be evaluated to determine whether certain allotments should be retired and to establish permit requirements that only nonlethal methods of wolf-livestock conflict prevention and resolution be used on these public lands.
- Collaborative efforts should be formed between the state wildlife agency, ranchers, non-governmental organizations and federal agencies to use non-lethal conflict-prevention methods that will keep both wolves and livestock safe.
- Wolves should not be managed through public hunting or trapping. Although wolves play a crucial role in fundamental ecological processes, they exist in the Lower 48 at population levels far below ecologically-functioning numbers. Their highly-social nature means that the deaths of pack members disrupt integral social behaviors. Wolf populations manage their own numbers via inter-pack strife as a result of territoriality and resource availability. There is no evidence that allowing hunting or trapping of wolves increases social tolerance for wolves. If anything, the hunting and trapping seasons on wolves that have been sanctioned under state management in the northern Rockies post-federal-delisting has demonstrated that the opposite is true.

- Steps should be taken to enhance habitat for wolf prey species such as deer and elk. Collaborative efforts should be formed between the Department , sports-hunting and conservation organizations to identify and secure funding sources for implementing habitat restoration projects that will benefit wild ungulates, human hunters and wolves.
- Public education about wolves is a critical component in recovering, conserving and managing the species. The Department should seek funding for and develop public education presentations and materials on a wide range of wolf-related topics, based on verifiable, accurate information about wolves. Topics should include (but not be limited to) wolf biology and behavior; wolves’ ecological role in nature; wolf-livestock interactions and non-lethal preventative methods to reduce or prevent wolf-livestock conflict; wolf-wild ungulate interactions; physical features that distinguish wolves from other canids; wolf-human interactions/safety issues; conservation issues for wolves including the need for long-range dispersal, the ability for multiple populations in different locations to have genetic flow between them, and the need for secure core habitat to protect against human-caused mortality.
- Long-term monitoring of California’s wolf population will be necessary to determine whether populations are healthy and sustainable, and the Department should seek and secure adequate funding for this. A wolf-monitoring program should be developed that will alert staff to any risks to the long-term survival of wolves and thus enable the Department to respond quickly with adaptive management strategies.

CONCLUSION

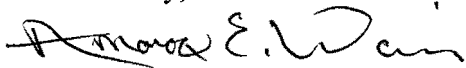
The Center supports listing of the gray wolf as an endangered species under CESA.

Ample evidence exists regarding the wolf’s historical presence in the state as a native species whose role as an apex predator not only filled a critical ecological niche in nature but also had cultural significance for California’s native peoples. Modeling studies have identified suitable habitat for wolves in California that may be essential to the species’ existence in the State.

Further, while OR-7 heralded the return of wolves to the State, the status of wolf populations in Oregon and Washington point to the likely dispersal of more wolves to California in the future.

Listing the wolf under CESA will provide the critical conservation mandate and legal protections which will be necessary to welcome the wolf home.

Sincerely,

A handwritten signature in black ink, appearing to read "Amaroq E. Weiss". The signature is fluid and cursive, with the first name being the most prominent.

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