



Animal Welfare Institute

900 Pennsylvania Avenue, SE, Washington, DC 20003
awionline.org phone: (202) 337-2332 fax: (202) 446-2131

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BY ELECTRONIC MAIL

Public Comments Processing
Attn: FWS-R2-ES-2012-0042
Division of Policy and Directives Management
U.S. Fish and Wildlife Service
4401 N. Fairfax Drive, MS 2042-PDM
Arlington, VA 22203

Re: Designation of Critical Habitat for Jaguars (*Panthera onca*) under the Endangered Species Act (ESA); FWS-R2-ES-2012-0042

Dear Sir or Madam:

These comments respond to the revised critical habitat rule for the jaguar (*Panthera onca*) (“Revised Rule”), 78 Fed. Reg. 39237 (July 1, 2013). The U.S. Fish and Wildlife Service’s (FWS) proposed critical habitat designation represents a positive step for jaguar recovery and, as such, the Animal Welfare Institute (AWI) supports the proposed critical habitat designation for the jaguar. However, AWI is concerned that both the Jaguar Recovery Outline for the jaguar and the proposed critical habitat designation ignore significant portions of the jaguar’s historic range that are essential to the recovery of the species.

I. Critical habitat should include all of the areas that jaguars historically occupied within the U.S.

Historically, jaguars occurred in California, Arizona, New Mexico, Texas, and possibly as far east as Louisiana.¹ Jaguars were extirpated from California in the early 1900s and Texas in 1948, and nearly eradicated from Arizona and New Mexico, with sightings since 1963 limited to south-central Arizona and extreme southwestern New Mexico.²

The Endangered Species Act (ESA) places a high priority on the recovery of threatened and endangered species within the U.S. It allows a species to be listed “where its principal range is in another country, such as Canada or Mexico, and members of that species are only found in this country insofar as they exist on the periphery of their range.”³ Meeting the goal of recovery

¹ 37 Fed. Reg. 6,476 (Mar. 30, 1972).

² Nowak, R.M. 1975. *Retreat of the jaguar*. National Parks Conservation Magazine 49:10-13.

³ See 16 U.S.C. § 1531(a)(3) (Threatened and endangered species “are of esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people”).

under the ESA requires the FWS to recover self-sustaining populations of jaguars within the U.S., yet the proposed critical habitat does not appear broad enough to meet this objective.

In order to establish a self-sustaining population of jaguars within the U.S., the FWS should identify enough critical habitat to support a strong population target. This target should be in accordance with conclusions reached by the FWS' Jaguar Recovery Team in Mexico, indicating that high quality habitat should be able to support 50-100 jaguars.⁴ In comparing the criteria identified by the Jaguar Recovery Team for high quality habitat in Mexico with the criteria identified by the FWS for critical habitat in the U.S., it appears that the FWS has omitted the requirement for "expansive areas of adequate habitat" to support 50-100 jaguars within the U.S. It is particularly important, for the jaguar to have any chance of recovery, that the FWS designate additional protected habitat farther north than is currently designated in Arizona and New Mexico. This additional habitat is necessary given the existing and expanding threats to jaguars and their habitat including, but not limited to, livestock grazing, lethal predator control activities, human recreational activities, and past and future impacts of climate change.⁵

Furthermore, it is crucial that the FWS maximize the amount of designated critical habitat from the outset because future revisions to critical habitat designations are rare and will involve expending additional resources. Despite listing the jaguar in 1997, critical habitat was not proposed for the species until 2012. This delay suggests that, should jaguars be observed in undesignated regions in the future, the FWS will likely be unable to respond quickly and effectively to expand the boundaries of the critical habitat. Accordingly, it is essential that the FWS adopt a strong critical habitat rule based on sound science. To that end, the final critical habitat designation should encompass all locations where the presence of jaguars has been documented since its listing in 1997 under the ESA, and provide justification for the exclusion of any such areas from the critical habitat boundaries.

At a minimum, the FWS should expand critical habitat for the jaguar to include the following areas:

a. Chiricahua Mountains and Animas Mountains

The Chiricahua and Animas Mountains adjoin smaller mountain ranges where jaguars were confirmed in 1986 and 2006, respectively. The Revised Rule's failure to designate the Chiricahua Mountains as critical habitat is particularly worrisome, considering its location south of Interstate Highway 10 (I-10), its close proximity to the smaller Peloncillo Unit (#5) and to Mexico, and the recent jaguar occurrence in that range.

b. Mogollon Rim and Gila National Forest

The decision to omit Gila National Forest and Mogollon Rim from designated critical habitat does not reflect best available science. This effectively omits all areas above 6,562 feet in elevation from designation as critical habitat. In fact, two jaguars—including the last female

⁴ Jaguar Recovery Outline at 15-16 (April 2012).

⁵ See, e.g., "Conservation of Jaguars in North America," resolution passed unanimously by attending American Society of Mammalogists members at the society's 87th annual meeting in Albuquerque, New Mexico, June 2007. *Journal of Mammalogy*, 88(6), Dec. 2007; p. 1574.

jaguar seen in the U.S.—were killed in this region at an elevation of nearly 9,000 feet. Moreover, the Jaguar Recovery Team noted that jaguars use oak and pine forests in Jalisco, Mexico at elevations between 8,858 and 9,186 feet.⁶

Additionally, the areas near the border with Mexico—where jaguars began recolonizing the American Southwest—are smaller in size, have less water and are able to naturally support fewer large prey animals than the Gila National Forest and Mogollon Rim, which both have elk, deer and javelinas for jaguars to feed on. Thus, both the Gila National Forest and the Mogollon Rim fit the criteria for high quality jaguar habitat, as determined by the FWS’s Jaguar Recovery Team, as well as the criteria proposed by the FWS in the Revised Rule.

In the event that the final critical habitat designation fails to expand critical habitat to areas at an elevation above 6,562 feet, the FWS must provide an explanation based on the best available science as to why habitat that, based on the FWS’s own Jaguar Recovery Team’s criteria, would be most conducive to sustaining and increasing the jaguar population has been excluded based on what is an arbitrary elevation limit. Such an explanation is crucial since elevation limits were entirely absent from the Jaguar Recovery Team’s criteria for quality jaguar habitat, as well as the Jaguar Habitat Subcommittee’s criteria for suitable jaguar habitat.⁷

II. It is important to recognize connectivity between jaguar critical habitat units.

a. Connectivity is generally lacking in the Revised Rule

The FWS has concluded that actions which sever connectivity with Mexico or with a critical habitat unit would likely violate the ESA’s Section 7(a)(2) prohibition on the adverse modification or destruction of critical habitat.⁸ However, under the Revised Rule, there is no designated critical habitat that connects Unit 1, Unit 2, Unit 5 or Unit 6 to the other areas of designated critical habitat. Only Units 3 and 4 have connectivity with one another. It is well accepted that “connectivity of large areas is essential to conserving biological diversity...and is particularly important to long-term viability of large-carnivore [such as jaguar] populations.”⁹ As such, the FWS must revisit its decision not to identify critical habitat between the proposed units.

The FWS stated in the previous version of the rule that it could not designate critical habitat to facilitate connectivity between the remaining proposed critical habitat units.¹⁰ Connecting corridors that include rivers, streams, draws, washes and wetlands should be designated as critical habitat because jaguars prefer to use areas with cover to facilitate their movements. In the lowland areas of the Sky Islands region, which is considered to be a core area for jaguars,

⁶ See Jaguar Recovery Outline at p. 11.

⁷ *Id.* at.13.

⁸ 78 Fed. Reg. 39237 (July 1, 2013).

⁹ JOHNSON ET. AL., JAGUAR CONSERVATION ASSESSMENT FOR ARIZONA, NEW MEXICO AND NORTHERN MEXICO 31 (2011), available at <http://www.sacpaaz.org/wp-content/uploads/2012/04/Jaguar-Conservation-Assessment-for-AZ-NM-NMX-20110131-Final-Revised.pdf>.

¹⁰ “[W]ith only one record [of jaguar movement within in the United States], we are unable to describe the features of these areas because of a lack of information.” (77 Fed. Reg. 50,220).

cover is more readily available in seasonally or perennially wet areas. Indeed, when Geographic Information System (GIS) technology was used to characterize potential jaguar habitat in Arizona by overlaying 25 historic jaguar sightings on landscape and habitat features believed to be important to jaguars, it was found that “[r]elated to water, when springs, rivers, and creeks were combined, 100 percent of the jaguar records were within 10 km (6.2 mi) of a water source.”¹¹

Additional GIS analysis and modeling of southeastern Arizona could have been used to identify areas that are most likely to facilitate jaguar movement based on the presence of water sources in comparison to other factors that limit jaguar use of habitat including, for example, levels of human activity.¹² To facilitate jaguar recovery, all presently occupied and potential jaguar habitat should be designated as critical.

b. Connectivity between Sky Island and Mogollon Rim regions

The most critically threatened habitat for jaguar movement is concentrated along Interstate-10 (I-10), where wildlife habitat and open space are rapidly disappearing due to urban sprawl, expanded transportation infrastructure and other human activities. Without proper conservation planning, I-10 will block movement of most terrestrial wildlife and prevent jaguar recolonization to the north. Indeed, as reported by Johnson et al. (2011) “[F]uture loss, fragmentation and modification of habitat” is a “concern with regard to jaguar conservation in the United States-Mexico borderlands.”¹³ Thus, a number of wildlife corridors and linkages have been identified in southeastern Arizona and western New Mexico as essential areas for jaguar movement around I-10 to encourage further population growth in historical ranges and maintain populations already in existence.¹⁴

c. Connectivity within the Sky Island region

Nine corridors south of I-10 should be considered for critical habitat designation, along with habitat areas linking the Atascosa and Baboquivari units. Additional corridors north of I-10 should be designated to allow eventual jaguar dispersal between the Rincon-Santa Catalina and Galiuro Mountains, the Galiuro and Pinaleno Mountains and habitat areas connecting the Sky Island and Mogollon Rim regions (e.g., the Peloncillo Mountains north of I-10). These are historical ranges where jaguars are “most likely to occur in the United States,” (and where they

¹¹ Jaguar Recovery Outline at p. 12. (citing Hatten et. al., *A Spatial Model of Potential Jaguar Habitat in Arizona*, in 69 THE JOURNAL OF WILDLIFE 1024 (2005).

¹² See e.g. Beier, P., D.R. Majka, W.D. Spencer. 2008. *Forks in the Road: Choices in Procedures for Designing Wildland Linkages*, Conservation Biology 22:836-851; Beier, P. et al. 2011. *Toward Best Practices for Developing Regional Connectivity Maps*, Conservation Biology 25:879-892.

¹³ Johnson et. al., *supra* note 9 at 22.

¹⁴ SKY ISLAND ALLIANCE, WILDLIFE LINKAGES PROGRAM: 10 YEAR REPORT 4 (2011), available at <http://www.skyislandalliance.org/jessica/WLP10yearreport.pdf>; See also, Johnson et. al., *supra* note 8 at 34 (“From 1996 through 2009, jaguar occurrence was confirmed repeatedly along the U.S.-Mexico border in southern Arizona and New Mexico”).

have been observed)¹⁵ as well as areas that are “most likely to provide habitat that would support the existence of jaguars in the United States.”¹⁶

III. There are current and planned activities in jaguar habitat and possible impacts, including but not limited to adverse modification and potential take, which the FWS must consider. These activities affect the environmental baseline.

Activities such as those conducted by the Wildlife Services (WS) predator control program on public lands should not be absolved from consideration for adverse modification and/or destruction of critical habitat. The capacity of landscapes to support jaguars and jaguar prey may be greatly reduced for indefinite stretches of time in part due to WS activities. The use of hounds, neck snares, foot snares, and steel-jaw leghold traps for mountain lion control in jaguar habitat can impair the abilities of such habitats to support a vital life function for jaguars and impair the abilities of such habitats to recover jaguars. For these reasons, it is not justifiable to exclude the WS predator control program from the description of activities that may destroy or adversely modify critical habitat for jaguars.

Indeed, in Arizona, the jaguar’s gradual decline was concurrent with predator control associated with the development of the cattle industry.¹⁷ Actions that may affect jaguars include trapping and animal control activities designed to target jaguars and other large predators.¹⁸ Such activities may also prevent jaguars from recolonizing previously inhabited, or otherwise suitable, areas. In particular, as cited in the attached Biological Opinion, M-44 ejector devices with cyanide capsules used by WS to accommodate stockmen concerns over predator losses may be of threat to the jaguar.¹⁹ The jaguar may also be victims of traps targeted for other predators such as bears and mountain lions.²⁰

The portion of the WS project area of concern which the FWS needs to take into account is the southwestern U.S. and includes specific locations where the most recent reports of jaguars in the U.S. have occurred, including but not limited to the Greaterville area, Santa Cruz River, and the Dos Cabezas, Baboquivari, Peloncillo, and Cerro Colorado mountains of Arizona.²¹ Losses are continually anticipated in these areas as a result of predator control activities. In particular, WS has stated that control efforts directed at depredated mountain lions along the Mexican border have the potential to affect a transient jaguar.²² WS determined that the proposed activities may affect the jaguar based on the use of hounds, neck snares, foot snares, and steel-jaw leghold traps for mountain lion control.²³

¹⁵ Johnson et. al., *supra* note 9 at 10.

¹⁶ See attached, U.S. FISH AND WILDLIFE SERVICE, BIOLOGICAL OPINION SUMMARY: EFFECTS OF THE NATIONWIDE WILDLIFE SERVICES PROGRAM ON THE JAGUAR 5 (1999); *See also*, Johnson et. al., *supra* note 8 at 56 (a map showing the Peloncillo Mts. as both a suitable habitat for jaguars and a possible migration connection).

¹⁷ Brown, D.E. 1983. On the status of the jaguar in the Southwest. *Southwest Naturalist* 28:459-460; USFWS 1990. Listed cats of Texas and Arizona recovery plan (with emphasis on the ocelot). USFWS, Albuquerque, New Mexico.

¹⁸ Biological Opinion Summary, *supra* note 14.

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Id.*

²² *Id.* at 6.

²³ *Id.*

Section 9 of the ESA prohibits the take of listed species without special exemption. Taking is defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, collecting, or attempting to engage in any such conduct.²⁴ Harm is further defined to include “significant habitat modification or degradation” that results in death or injury to listed species “by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering.”²⁵ Within the ESA, the FWS is required to not only determine the distribution of jaguar habitat within the southwestern U.S., but the possible or actual distribution of jaguars within that habitat and designate enough critical habitat to avoid jeopardy to the species, taking into account the effects of past and ongoing human (and natural) factors leading to the current status of the species, its habitat, and ecosystem.

Conclusion

Although recovery efforts have increased over the years, jaguars remain an endangered species. AWI supports the FWS’ proposed critical habitat designation for the jaguar but asserts that the FWS is obligated to designate a more expansive area as critical habitat, including historical ranges, to achieve jaguar recovery as mandated by the ESA. Particularly, connecting all the units, especially those that surround interstate highways, would increase the jaguars’ range while ensuring safe migration from Mexico to their historical habitats in the United States.

Furthermore, WS’ lethal control activities on public lands should not be absolved from consideration for adverse modification and/or destruction of critical habitat. Lethal predator control activities, though not purposefully directed at jaguars, do affect the species and their habitat. As an endangered species, all efforts should be made to minimize harm to jaguars and to be aware of where they reside- and could possibly reside in the United States. The FWS must take into account WS activities when accounting for adverse modification of habitats.

Thank you in advance for providing this opportunity to comment on this proposed rule and for considering these comments. Please send any future correspondence or information about this proposed rule to: Tara Zuardo, Wildlife Attorney, Animal Welfare Institute, 900 Pennsylvania Ave., SE, Washington, DC 20003.

Sincerely,



Tara Zuardo
Wildlife Attorney

²⁴ 16 U.S.C. § 1532(19).

²⁵ 50 C.F.R. § 17.3.