



October 19, 2012

Public Comments Processing
Docket: 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: Comments of the Society for Conservation Biology on the Proposed Critical Habitat for the Jaguar.

Dear Supervisor Spangle,

The Society for Conservation Biology¹ (SCB) would like to offer the following comments on the U.S. Fish and Wildlife Service's (FWS) proposed critical habitat for the jaguar (*Panthera onca*).² SCB supports the FWS's decision to designate critical habitat for the jaguar, which was first protected³ in 1972 under the Endangered Species Conservation Act of 1969.⁴ The jaguar once roamed the southern United States from California eastward to Louisiana, but was believed to have been extirpated or nearly extirpated from the United States by the time the species was first afforded federal protection. Since 1997, the jaguar has been protected as an endangered species under the Endangered Species Act of 1973 (ESA).⁵ Beginning in 2006, the FWS began to receive reliable reports that jaguars were present in southeast Arizona, suggesting that the species has begun to recolonize some of its unoccupied historic range. In 2010, the FWS began the process of developing a recovery plan for the jaguar, and a recovery outline for the jaguar was published in April of 2012.⁶

The FWS's proposed critical habitat designation represents a positive step for jaguar recovery. As a native species that bred in the United States in the recent past, the FWS has a duty to recover that species under the ESA. However, SCB is concerned that both the recovery outline for the jaguar and the proposed critical habitat ignore significant portions of the jaguar's historic range which are essential to the recovery of the species *within the United States*. Specifically, SCB recommends that critical habitat for the jaguar includes areas representing each of the unique biogeographic ecoregions that the jaguar has previously been

¹ 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 the application of science to management and policy. The Society's 5,000 members include resource managers, educators, students, government and private conservation workers in over 140 countries.

² USFWS. 2012. *Designation of Critical Habitat for Jaguar*. 77 Fed. Reg. 50,214 (Aug. 20, 2012).

³ 37 Fed. Reg. 6,476 (Mar. 30, 1972)

⁴ Public Law 91-135.

⁵ 62 Fed. Reg. 39,147 (Jul. 22, 1997)

⁶ USFWS. 2012. Recovery Outline for the Jaguar (*Panthera onca*). Available at: <http://www.fws.gov/southwest/es/arizona/Documents/SpeciesDocs/Jaguar/049777%20-%20Jaguar%20Recovery%20Outline.pdf>



extirpated from, which in turn affirms the need to achieve recovery in each of these ecoregions in the future.

SCB supports the FWS's decision to include habitat that will provide connectivity with Mexico. However, SCB is concerned that there will be insufficient connectivity between each of the critical habitat units within and between units inside the United States. Finally, SCB continues to be concerned with efforts of the FWS to include language in critical habitat proposals that may prejudice future consultations under Section 7 of the ESA. The FWS critical habitat proposal intimates that ranching activities will not jeopardize the jaguar or adversely modify any critical habitat. Given the documented negative effects that overgrazing has had on native ecosystems in the southwest United States, the FWS's conclusion appears to be unsupported by scientific literature. Finally, SCB recommends that FWS take steps to insure that any agency actions occurring in Mexico do not adversely modify jaguar habitat in Mexico.

I. Critical Habitat Should Include Areas of Unoccupied Habitat from Each of the Ecoregions the Jaguar Previously Occupied within the United States.

Historically, jaguars occurred in California, Arizona, New Mexico, Texas, possibly ranging as far as Louisiana.⁷ Jaguars were extirpated from California in the early 1900s; they were extirpated from Texas in 1948; and have been nearly extirpated from Arizona and New Mexico, with sightings since 1963 being limited to south-central Arizona and extreme southwestern New Mexico.⁸ While global in its scope, the ESA places a high priority on the recovery of threatened and endangered species within their range inside United States, and allows a species to be listed "within the United States 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."⁹ Meeting the goal of recovery under the ESA requires the FWS to recover self-sustaining populations of jaguars within the United States. The proposed critical habitat designation does not appear large enough to meet this objective.

While the jaguar has a very large global range, extending as far south as Argentina, jaguars have been extirpated from 37 percent of their historic breeding range including the United States. Recovery of the jaguar within the United States will require extensive cooperation with Mexico. Improving the conservation status of the jaguar within Mexico is a prerequisite to restoring the jaguar to the United States, because Mexico will undoubtedly provide the source population for any future jaguar populations within the United States. However, improvement of the conservation status of the jaguar in Mexico is not sufficient to meet the goal of recovery as required by the ESA. Rather, the jaguar must be fully recovered *within all significant portions of its United States range* to be considered recovered under the

⁷ 37 Fed. Reg. 6,476 (Mar. 30, 1972)

⁸ Nowak, R.M. 1975. *Retreat of the jaguar*. National Parks Conservation Magazine 49:10-13

⁹ 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*.")



ESA and removed from the list of endangered species. Recovery of the jaguar within the United States will be a difficult task that may not be achieved for decades. But this does not mean that the objective of jaguar recovery is not important. Significant scientific research indicates that populations at the edge or periphery of a species' range play an important role in maintaining the total genetic diversity of a species, especially in situations where habitat fragmentation and habitat loss impact the total range of the species.¹⁰ Peripheral populations can be an important genetic resource in that they may be beneficial to the protection of evolutionary processes that are likely to generate future evolutionary diversity.¹¹ In addition, recovering jaguars at the northern end of the species' range may prove important as climate change causes biological communities to shift farther north. Even if recovery of the jaguar will not be feasible for decades, the FWS may not limit the recovery objectives for this species given current fiscal and social constraints.

SCB has previously recommended to the FWS that the presence/absence of a species from distinct biogeographic ecoregions within its historic range provides a scientifically valid approach for both the listing and a goal for the recovery of species under the ESA.¹² Under SCB's recommended approach, as a species is recovered within each ecoregion, it could be downlisted and eventually removed from the ESA if the threats of future extirpation in that ecoregion have been alleviated to the point that protection under the ESA is no longer necessary. Under SCB's recommended approach to recovery, self-sustaining jaguar populations should be recovered in each biogeographic ecoregion the species once occupied. This approach would not require that the jaguar be restored to its full historic range or abundance, but it would not permit the FWS to ignore vast areas of suitable habitat in several ecoregions that the jaguar formerly occupied.

Under the FWS's proposed critical habitat, virtually all of the proposed critical habitat areas are located in extreme southeast Arizona and southwest New Mexico, inside the Arizona/New Mexico mountains ecoregion (also known as the sky islands ecoregion) (see Figure One).¹³ In particular, the FWS identified areas containing Madrean oak woodlands or semidesert grasslands as critical habitat for the jaguar that region.¹⁴ SCB agrees with the FWS's conclusion that these areas contain the physical and biological features that are essential to the conservation of the jaguar, the standard for critical habitat required by the ESA.¹⁵ However, the FWS proposal also notes that jaguars have been documented in areas of thornscrub, desertscrub, lowland desert, mesquite grassland, and pine-oak woodland

¹⁰ Channell, R. and M.V. Lomolino. 2000. *Dynamic biogeography and conservation of endangered species*. Nature 403:84-86.

¹¹ Lesica, P. & F.W. Allendorf. 1995. *When Are Peripheral Populations Valuable for Conservation?* Conservation Biology 9:753-760.

¹² See SCB's Comments on the Draft Policy on Interpretation of the Phrase "Significant Portion of Its Range" in the Endangered Species Act's Definitions of "Endangered Species" and "Threatened Species." March 8, 2012. Available at: http://www.conbio.org/images/content_policy/SCB_Comments_on_SPR_Policy_3_8_2012.pdf

¹³ 77 Fed. Reg. 50,239

¹⁴ 77 Fed. Reg. 50,224

¹⁵ 16 U.S.C. § 15332(5)



communities in other ecoregions in the Southwest.¹⁶ The FWS appears to have largely overlooked the possibility that additional critical habitat should have been designated in these biotic communities as well. On a broader geographic scale, SCB is concerned that no substantial critical habitat has been proposed for the Chihuahuan desert, the southern Texas Plateau, or the Rio Grande Valley ecoregions.¹⁷ While it may be more of a conservation challenge, jaguar populations do exist in the Sierra Madre Oriental in the Mexican states of Nuevo León and Tamaulipas.¹⁸ Designating critical habitat in New Mexico and Texas in areas where jaguars were historically present provides a greater likelihood that if jaguars disperse north from eastern Mexico, there will be some regulatory safeguards in place to protect and preserve the biological and physical features essential to the jaguar into the future. SCB notes that large portions of southwest Texas, especially near Big Bend National Park, have less than 5 people per square mile¹⁹ and relatively few roads, and could potentially support jaguars in the future.

Similarly, despite the fact that jaguars have been documented as far north as the Grand Canyon and the Mogollon rim in the recent past, the FWS has not proposed to designate any critical habitat for jaguar in either of these areas. Recent studies have analyzed potential habitat in Arizona, and identified approximately 15 million acres that could be suitable as critical habitat for the jaguar.²⁰ Given the possibility that all of these areas could support jaguars, SCB recommends that the FWS reconsider its decision to limit the critical habitat of the jaguar to only 840,000 acres.

Jaguars can have very large home ranges, which the FWS estimates to generally be between 84-100 square kilometers (20,750-24,700 acres).²¹ Although home ranges can overlap among individuals in a population, adult males and dispersing juveniles are capable of using much larger areas, thus 840,000 acres of critical habitat may not represent enough habitat to support self-sustaining populations of jaguars within the United States (the jaguar recovery team defines “self-sustaining” as breeding with population growth (a λ of 1.0 or greater) and a minimal risk of extinction). The jaguar recovery team has concluded that in Mexico, high quality habitat should be able to support 50-100 jaguars.²² It therefore follows that to establish a self-sustaining population of jaguar within the United States, FWS should

¹⁶ 77 Fed. Reg. 50,218

¹⁷ See The Nature Conservancy, 1999. Ecoregional Conservation Analysis of the Arizona-New Mexico Mountains. Available at: http://azconservation.org/dl/TNCAZ_Ecoregions_Assessment_AZ-NM_Mtns.pdf; Griffith, G. *et al.*, 2007. Ecoregions of Texas. Available at: http://www.epa.gov/wed/pages/ecoregions/tx_eco.htm

¹⁸ Rodríguez-Soto, C., *et al.*, 2011. Predicting Potential Distribution of the Jaguar (*Panthera onca*) in Mexico: Identification of Priority Areas for Conservation, Diversity and Distributions 17:350-361.

¹⁹ U.S. Census Bureau. 2010. *Texas Profile: Population Density by Census Tract*. Available at http://www2.census.gov/geo/maps/dc10_thematic/2010_Profile/2010_Profile_Map_Texas.pdf

²⁰ Hatten, J.R., A. Averill-Murray, and W.E. Van Pelt. 2005. *A spatial model of potential jaguar habitat in Arizona*. *Journal of Wildlife Management* 69(3):1024-1033.

²¹ 77 Fed. Reg. 50,220

²² Jaguar Recovery Outline at 15-16.



identify enough critical habitat to support a similar minimum population target.²³ SCB is concerned that when one compares the eight criteria identified by the jaguar recovery team for high quality habitat with the criteria identified by the FWS for critical habitat, the only significant deviation between these two sets of criteria is that FWS eliminated the “expansive areas of adequate habitat” to support 50-100 jaguar criteria. As stated above, meeting the goal of recovery under the ESA requires the FWS to recover self-sustaining populations of jaguars within the United States. The proposed critical habitat designation does not appear large enough to meet this objective.

It is important for the FWS to designate additional critical habitat, both within Arizona and in other ecoregions because it makes recovery of self-sustaining populations more likely. Research indicates that species with designated critical habitat are more likely to have an improving population trend than those species that do not have critical habitat.²⁴ It is also important for FWS to propose additional critical habitat because revisions to critical habitat designations rarely occur, and they can require the FWS to expend significant resources to complete them. Despite listing the jaguar in 1997, critical habitat was not proposed at all until this 2012 proposal, a delay of 15 years. Realistically, it is unlikely that the FWS will revisit the jaguar’s critical habitat designation on its own initiative for many years, if ever. This makes it more important for the FWS to finalize the strongest possible critical habitat designation at this time. Finally, it is also important to include critical habitat because the critical habitat designation could have some influence on the outcome of the recovery planning process. If the entire critical habitat designation for the jaguar is located in extreme southeast Arizona and southwest New Mexico, it is more likely that recovery efforts will only be focused in that area, to the exclusion of other areas where jaguar recovery could eventually occur.

II. There is Insufficient Connectivity Between Each Proposed Critical Habitat Unit to Facilitate Jaguar Movements within the United States.

SCB supports the FWS’s decision to include areas within the critical habitat designation that are designed to facilitate connectivity between jaguar populations in Mexico. The FWS is correct that there must be sufficient connectivity between areas within the United States and Mexico to ensure that there is natural exchange of individual jaguars with populations in Mexico to promote the long-term genetic integrity of both populations.²⁵ SCB is concerned, however, by the FWS’s decision not to designate any areas as critical habitat that would facilitate connectivity between populations that will eventually become established within the United States. As shown below in Figure One, there is no proposed critical habitat

²³ See, e.g., Lynch, M., and R. Lande. 1998. *The critical effective size for a genetically secure population*. *Animal Conservation* 1:70-72. The 50/500 rule specifies that retention of allelic diversity through a long-term balance between mutation and genetic drift may require that such subpopulations be part of a larger metapopulation with an $N_e > 500$.

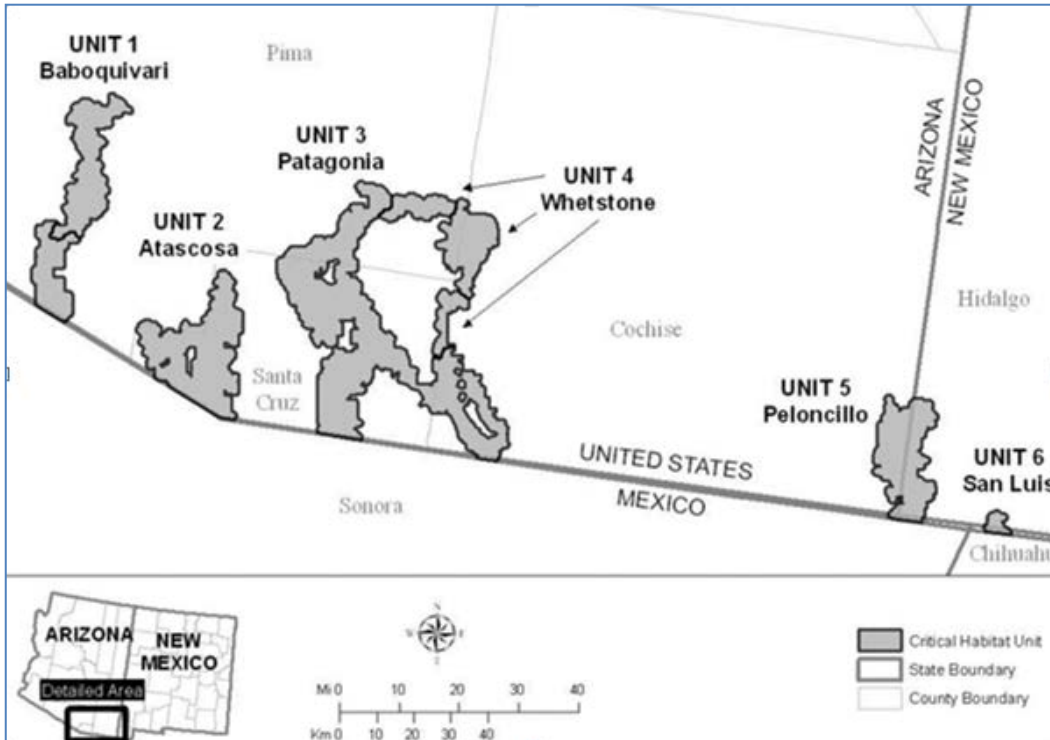
²⁴ Taylor, M.F., et al. 2005. *The Effectiveness of the Endangered Species Act: A Quantitative Analysis*, *BioScience* 55:360-367.

²⁵ Mills, L. S., and F. W. Allendorf. 1996. *The One-Migrant-per-Generation Rule in Conservation and Management*. *Conservation Biology* 6:1509-1518.



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 to facilitate the movement of jaguars in southeast Arizona.

Figure One – Proposed Critical Habitat for the Jaguar



Despite acknowledging the importance of connectivity between these units, the FWS states that it could not designate critical habitat to facilitate connectivity between the remaining proposed critical habitat units because “with 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.”²⁶ Because of the lack of data, FWS chose not to designate any valley areas between the proposed units as critical for the jaguar. SCB does not dispute the lack of specific jaguar movement data within the United States as being sufficient to make precise determinations about areas best suited to facilitate jaguar movement. However, the FWS has the inherent authority and ability to use the best available science regarding connectivity for other similar species, such as the mountain lion, to make a reasoned judgment about the most likely areas that would facilitate connectivity for the jaguar.

For example, there is sufficient evidence that jaguars avoid areas where human population densities are higher and human activities are more frequent. Jaguars tend to selectively use large areas of relatively intact habitat away from certain forms of human

²⁶ 77 Fed. Reg. 50,220.



influence. As a result, towns and roads can have an impact on the spatial distribution of jaguars.²⁷ Basic GIS analysis and modeling of southeastern Arizona could have easily identified areas that are most likely to facilitate jaguar movements based on the lower levels of human activities.²⁸ Likewise, there is significant research on the effectiveness of road underpasses as a means of facilitating wildlife movements in fragmented landscapes. The FWS could have identified where road underpasses and bridges are present in southeastern Arizona that would facilitate jaguar movements (and also reduce the likelihood of jaguar mortality due to vehicle collisions).²⁹ More broadly, the FWS could have looked at connectivity for other large predators, including mountain lion, in southeastern Arizona as a proxy for jaguar connectivity. Such results would have been scientifically acceptable in identifying critical habitat for the jaguar.

Preserving and improving connectivity is essential to jaguar recovery within the United States. These activities, including the development and maintenance of highway underpasses and overpasses, have been identified by the jaguar recovery team as a priority recovery action. The FWS has concluded that actions that 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. The single most important statutory power that will preserve and potentially improve connectivity is to designate areas that are likely to allow connectivity in the first instance. Therefore, SCB recommends that the FWS revisit its decision not to identify critical habitat between the proposed units. Doing so is especially important given that if there are areas that still facilitate connectivity (such as a highway underpass), then the FWS should be vigilant to ensure that future activities do not eliminate such connectivity (i.e. the redesign of the highway in a manner that eliminates the underpass).

III. The FWS Should Remove Language from the Final Critical Habitat Proposal that Could Prejudice the Outcome of Future Section 7 Consultations on Adverse Modification of Jaguar Critical Habitat

In the draft critical habitat proposal for the jaguar, the FWS states that “we do not anticipate activities such as grazing, ranching operations, or limited recreational activity would have adverse effects to jaguar critical habitat.”³⁰ SCB is concerned that this statement will prejudice the outcome of future consultations on Federal agency actions that could adversely modify or destroy jaguar critical habitat. Section 7(a)(2) of the ESA requires that Federal agencies consult with the FWS when a proposed action may jeopardize a listed species or result in the destruction or adverse modification of its critical habitat. Section

²⁷ Zeller, K. 2007. *Jaguars in the New Millennium Data Set Update: The State of the Jaguar in 2006*. Unpublished Report. Wildlife Conservation Society, Bronx, New York, USA.

²⁸ 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.

²⁹ Ng, S.J., et al. 2004. Use of Highway *Undercrossings by Wildlife in Southern California*. Biological Conservation 115:499-507.

³⁰ 77 Fed. Reg. 50,233



7(a)(2) requires that *each* consultation *must* be based on the “best scientific and commercial data available.”³¹ SCB is concerned that the FWS may be attempting to short-circuit the consultations process regarding the critical habitat of the jaguar by creating an expectation that a particular result will be reached in future consultations, without appropriate consideration of the facts on the ground.

The proposed critical habitat for the jaguar occurs primarily on federal land in Arizona and New Mexico. On those lands, the U.S. Forest Service and/or Bureau of Land Management (BLM) will periodically be required to make decisions regarding whether, where, and to what extent grazing is permitted on lands within their jurisdiction. This type of decision represents a discretionary agency action, and therefore triggers the consultation process under Section 7(a)(2). As such, the Forest Service and BLM must consult with the FWS to ensure that their actions do not adversely modify or destroy critical habitat.

There is ample scientific evidence to demonstrate the negative impacts that grazing can have on native ecosystems in the southwestern United States. Ecological impacts of grazing can include the alteration of species composition in a biotic community, the disruption of ecosystem functions, and the alteration of ecosystem structures. Fleischner (1994) summarized and reviewed existing research on grazing impacts, and concluded that because cattle tend to congregate in riparian areas, damage from grazing can be especially concentrated in these biodiverse habitats.³² Freilich et al. (2003) identified six ecological impacts of grazing in the west, where management strategies may need to be adapted to restore native ecosystems, including: (1) the persecution and elimination of predators from the landscape, (2) truncation and simplification of the food web, (3) habitat fragmentation from fencing and road creation, (4) the spread of exotic weeds, (5) alteration of fire regimes, and (6) impacts to water supplies and riparian areas. Because jaguar are, to some extent, dependent on available and reliable surface water sources, and is dependent on intact riparian areas to facilitate movement across the landscape, damage to water sources from grazing activities may present a concern. More recently, Loeser et al. (2006) concluded that in drought prone grassland areas of Arizona, poor grazing management can have significant ecological impacts especially during droughts, but proper grazing practices can help to maintain native plant diversity.³³ Climate change may exacerbate the ecological impacts of grazing if management strategies do not consider grazing in light of a changing climate.³⁴

Whether or not a particular agency action permitting or modifying grazing activities on public lands *will in fact* adversely modify jaguar critical habitat is a scientific question that can only be answered at the time the decision is made based on an analysis of the likely impacts of grazing in that particular location. The FWS’s own regulations implementing the

³¹ 16 U.S.C. § 1536(a)(2)

³² Fleischner, T.L. 1994. *Ecological Costs of Livestock Grazing in Western North America*, Conservation Biology 8:629-644.

³³ Loeser, M.R., Sisk, T.D., Crews, T.E. 2006. Impact of Grazing Intensity During Drought in an Arizona Grassland. Conservation Biology 21:87-97.

³⁴ Beschta et al. In press. Adapting to Climate Change on Western Public Lands: Addressing the Ecological Effects of Domestic, Wild, and Feral Ungulates. Journal of Environmental Management.



ESA require a case-by-case analysis that fully considers the environmental baseline at the time of proposed agency action.³⁵ If the FWS intends to follow its own regulations for such consultations on jaguar critical habitat, then the language in the critical habitat proposal that “anticipates” a future result should have no meaning. However, if the critical habitat proposal’s language regarding grazing results in the Forest Service or BLM concluding that any and all grazing will have no effect on jaguar critical habitat, then such language represents a potential procedural violation of the ESA. This would represent a violation of the ESA because the action agency (the Forest Service or the BLM) has a duty to make an independent finding, based on the best available science, as to whether one or more specific actions may affect a listed species or its critical habitat. If the Forest Service or BLM merely concludes that grazing has no effect based on the critical habitat proposal, and not on the best available science at the time the decision is made, then this determination could be deemed a violation of the ESA.

On a related point, SCB is also concerned that by including language regarding grazing, the FWS creates an expectation within the ranching community that grazing activities on public land will never have to be modified in order to promote the recovery of the jaguar. In the Jaguar Recovery Outline, the recovery team notes that cattle can make up a significant portion of a jaguar’s diet in areas where the two species overlap.³⁶ While unlikely in the near future, it is certainly possible that jaguar could eventually begin to prey on cattle in southeast Arizona. If the ranching community has the expectation that its activities will have no effect on jaguar, and therefore no warning that their activities might have to be modified, heightened conflict could arise when resolving future management disputes, due to this unnecessary comment in the FWS’s critical habitat designation.

SCB raised similar concerns when similar language was included within the draft critical habitat proposal for the Northern Spotted Owl (*Strix occidentalis caurina*).³⁷ SCB specifically requested that the FWS eliminate this language from the final critical habitat designation for the spotted owl.³⁸ We do so again here, in the case of the jaguar, and request that the FWS not include similar language in future critical habitat proposals for other threatened and endangered species.

³⁵ 50 C.F.R. § 402.02 (“*Effects of the action* refers to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process.”). See also FWS & NMFS. 1998. Consultation Handbook: Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act at 1-7 (“An overriding factor in carrying out consultations should always be the use of the best available scientific and commercial data to make findings regarding the status of a listed species, the effects of a proposed action on the species or critical habitat.”).

³⁶ Jaguar Recovery Outline at 6.

³⁷ Revised Critical Habitat for the Northern Spotted Owl, 77 Fed. Reg. 14,062 (Mar. 8, 2012).

³⁸ SCB Comments Regarding the Proposed Critical Habitat for the Northern Spotted Owl and its Accompanying Environmental Assessment. July 5, 2010. Available at: http://www.conbio.org/images/content_policy/2012-7-5_SCB_Comments_Spotted_Owl_Critical_Habitat_Proposal_7.5.2012.pdf



IV. Protect Jaguar Habitat Within Mexico

Finally, SCB notes that to the extent a proposed Federal agency action could adversely modify habitat of the jaguar in another country, that agency has an obligation to consult with the FWS regarding that proposed action. Section 7(a)(2) requires *all* Federal agencies to ensure that “*any* action authorized, funded, or carried out by the agency is not likely to jeopardize the continued existence of listed species” anywhere in the world.³⁹ Congress did not intend, and the plain language of the ESA makes clear, that the Section 7 consultation mandate is not limited geographically to the United States. The implementing regulations that the FWS are following, found at 50 C.F.R. § 402.01, that limit the scope of consultations to within the territorial boundaries of the United States conflict with the plain meaning of the ESA.⁴⁰ Since jaguar recovery in the United States is contingent upon recovery in Mexico, it becomes that more important for the United States to insure that its activities do not jeopardize the jaguar, adversely modify its habitat, or destroy its habitat in Mexico. To the extent that the Mexican government has identified jaguar habitat that is critical to the species, the United States should incorporate that designation by reference in its critical habitat designation as well as any eventual recovery plan for the species. And where an agency action could result in jeopardy or potentially adversely modify habitat in Mexico, that agency must consult with the FWS.⁴¹

CONCLUSION

SCB supports the FWS’s decision to designate critical habitat for the jaguar as an early step towards the species’ recovery. As a native species that bred in the United States in the recent past, the FWS has a duty to recover the jaguar within all significant portions of its range within the United States. Designating critical habitat for the jaguar in each of the ecoregions from which the jaguar has previously been extirpated will facilitate the species’ eventual recovery. The final critical habitat proposal must also allow for sufficient connectivity between each of the critical habitat units within the United States. Thank you for your consideration.

Sincerely,

John Fitzgerald, J.D.
Policy Director

Brett Hartl, J.D.
Policy Fellow

³⁹ *Defenders of Wildlife v. Lujan*, 911 F.2d 117, 125 (8th Cir. 1990) *rev’d on other grounds by Lujan v. Defenders of Wildlife*, 504 U.S. 555 (1992).

⁴⁰ On June 12, 2012, SCB filed an administrative petition with the FWS and the National Marine Fisheries Service, which implements the ESA with respect to marine species, requesting that the Services revise this regulation such that it no longer is in conflict with the text of the ESA. Petition available at: www.conbio.org/images/content_policy/SCB_Petition_to_Restore_Section_7_Consultations_Global_Scope.pdf

⁴¹ This recommendation extends to other nations where jaguar are present, however ensuring that any U.S. agency action does not impact habitat in Mexico is likely to be more important for recovery of the jaguar within the United States.



Society for Conservation Biology

Society for Conservation Biology

LITERATURE CITED

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.

Beschta et al. In press. *Adapting to Climate Change on Western Public Lands: Addressing the Ecological Effects of Domestic, Wild, and Feral Ungulates*. Journal of Environmental Management.

Channell, R. and M.V. Lomolino. 2000. *Dynamic biogeography and conservation of endangered species*. Nature 403:84-86.

Fleischner, T.L. 1994. *Ecological Costs of Livestock Grazing in Western North America*, Conservation Biology 8:629-644.

Freilich, J.E., et al. 2003. *Ecological Effects of Ranching: A Six-Point Critique*. BioScience 53:759-765.

Hatten, J.R., A. Averill-Murray, and W.E. Van Pelt. 2005. *A spatial model of potential jaguar habitat in Arizona*. Journal of Wildlife Management 69(3):1024-1033

Lesica, P., F. W. Allendorf. 1995. *When Are Peripheral Populations Valuable for Conservation?* Conservation Biology 9:753-760.

Loeser, M.R., Sisk, T.D., Crews, T.E. 2006. *Impact of Grazing Intensity During Drought in an Arizona Grassland*. Conservation Biology 21:87-97.

Lynch, M., and R. Lande. 1998. *The critical effective size for a genetically secure population*. Animal Conservation 1:70-72.

Ng, S.J., et al. 2004. *Use of Highway Undercrossings by Wildlife in Southern California*. Biological Conservation 115:499-507.

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

Rodríguez-Soto, C., et al., 2011. *Predicting Potential Distribution of the Jaguar (Panthera onca) in Mexico: Identification of Priority Areas for Conservation, Diversity and Distributions* 17:350-361.

Taylor, M.F., et al. 2005. *The Effectiveness of the Endangered Species Act: A Quantitative Analysis*, BioScience 55:360-367.

Zeller, K. 2007. *Jaguars in the New Millennium Data Set Update: The State of the Jaguar in 2006*. Unpublished Report. Wildlife Conservation Society, Bronx, New York, USA