

## **PUBLIC EMPLOYEES FOR ENVIRONMENTAL RESPONSIBILITY (PEER)**

Oct 2 2009

To: Mitch Ellis  
USFWS Kofa Complex Manager  
Yuma AZ USA

On behalf of Public Employees for Environmental Responsibility (PEER)<sup>[1]</sup>, we submit the following comments regarding the Draft Environmental Assessment for Limiting Mountain Lion Predation on Desert Bighorn Sheep on the Kofa National Wildlife Refuge (EA). The Notice of Availability of the EA was published in the Federal Register Vol. 74, No. 148 (August 4, 2009).

In the comments below, we discuss why Alternative A: No Action Alternative Continue Current Management Efforts is the only appropriate choice and, therefore, that Alternative B: the Proposed Action Alternative Conduct Limited Removal of Mountain Lions and Alternative C Indiscriminate Removal of Mountain Lions should not be chosen.

It is very important to note at the outset that although the EA correctly states that KOFA was established in 1939 by Executive Order 8039 for the conservation and development of natural wildlife resources<sup>[2]</sup>, the statement that [t]he conservation of desert bighorn sheep . . . was the driving factor in the establishment of the Refuge<sup>[3]</sup>, is not entirely accurate. Nowhere in Executive Order 8039 and related documents does it expressly state or even intimate this; in fact, bighorn sheep are not even mentioned in the document. As noted above, the KOFA was reserved and set apart for the conservation and development of natural wildlife resources.<sup>[4]</sup> Because mountain lions are certainly a natural wildlife resource, KOFA was established in part for their conservation and development. KOFA was not expressly established to be a bighorn sheep refuge or breeding grounds, and favoring one natural resource (bighorn sheep) over another (mountain lions) to the others detriment, clearly flies in the face of the Executive Orders intent.

Alternative A: No Action Alternative Continue Current Management Efforts states that: Research on wildlife and wildlife water sources would continue. Collection of mountain lion scat for composition analysis and the collaring of mountain lions and desert bighorn sheep would continue. The study of desert bighorn sheep health and causes of mortality on the Refuge would continue.<sup>[5]</sup>

By providing Alternative A, and from its partial description quoted above, it is clear that the United States Fish and Wildlife Service (Service) and Arizona Game and Fish Department (AGFD), believe that further research is not only warranted, but is necessary, in order to determine whether or not mountain lion predation is the cause of an alleged decline in bighorn sheep.

There are numerous valid reasons why the bighorn sheep population on the Kofa National Wildlife Refuge (KOFA) may be declining, wholly separate from the possibility that it may be due to mountain lion predation. Such reasons include a combination of: global climate disruption; the current and recent past severe drought conditions (and thus reduction in resources available to the sheep); environmental pressure and destruction by humans; environmental factors that contribute to low-fertility and/or high mortality of the young sheep; disturbance and stress by motorized use of vehicle routes cherry-stemmed into designated Wilderness; bighorn hunting; disturbance associated with bighorn, deer, quail and other permitted hunts on the refuge; disturbance as a result of research activities including helicopter overflights; observer inexperience and errors; capture of animals for translocation elsewhere; infectious disease; proliferation of non-native vegetation; changes in vegetation composition and structure as a result of decades of livestock grazing that lasted until 1983; genetic isolation as a result of habitat fragmentation outside the refuge; predation by coyotes and bobcats; and the breakdown of bighorn social organization as a tertiary effect of many of the other factors.

The Service and AGFDs focus on killing mountain lions while ignoring many of the other likely causes is unwise and scientifically unsound. Furthermore, in one of the first reported instances of a lion having killed a bighorn on the KOFA, the sheep was ill and partially blind. The lion may have very well prevented that sick bighorn from infecting other sheep. The killing of more lions risks the elimination of a significant natural interaction that serves to prevent the spread of disease in the bighorn population.

Regarding herd health in particular, AGFD stated that: bighorns seem particularly susceptible to respiratory problems like bacterial pneumonia, [e]vidence of chronic sinusitis has been common in the Kofa bighorn sheep herd and, outbreaks of disease have been documented in the Kofa herd<sup>[6]</sup>.

Additionally, AGFD and Service stated that permanent water availability as well as disease and public recreation impact on lambing areas are among the other factors being studied for their possible contributions to population decline.<sup>[7]</sup> Wildlife experts attribute the decline to a variety of potential factors including drought, water availability, disease and human disturbance.

Irrespective of these findings, the most recent survey by AGFD and Service actually indicated an increase in sheep numbers from 2006. Biologists analysis of the past three surveys indicates no significant decline in the herds population. Biologists observed lamb-to-ewe ratios of 29 lambs per 100 ewes, which is above the long-term average of approximately 20 lambs per 100 ewes for the refuge. This higher lamb-to-ewe ratio has stabilized the population.<sup>[8]</sup>

Due to the significance of this sheep population, the Service and AGFD are conducting an ongoing, joint study to collect data on the causes of the populations decline. In November 2007, 30 ewes were captured and fitted with tracking devices in order to monitor nutrition, movements, and mortality to assist in making active management decisions to assist in restoring the herds population. Lab results for the disease analysis of

blood samples are still pending. The project study is scheduled to run through the fall of 2010.<sup>[9]</sup>

Accordingly, until the findings of the project study are released, the continued indiscriminate killing of mountain lions is scientifically unjustified.

It must be noted that mountain lions and desert bighorn sheep evolved in the Sonoran Desert together, and the desert ecosystem needs both to be complete. Lions historically ranged in the KOFA, adapted to the Sonoran Desert, and are part of that deserts ecology. Unfortunately, AGFDs March 12, 2009 News Release, Biologists capture, collar and release mountain lion on Kofa NWR<sup>[10]</sup>, basically justifies killing potentially every lion in the Sonoran Desert. Specifically, the AGFD claims that: Historically, mountain lions have only been rare transient visitors to the Kofa NWR. There are no verified records of mountain lions on the refuge between 1944 and 2001. The Kofa NWR is neither critical nor essential to the health of the Arizona mountain lion population.<sup>[11]</sup>

AGFD is utilizing the same repudiated logic behind the recently-remanded federal decision not to recover the endangered jaguar in the United States. The Service, as well as AGFD, used all-but-identical language to disparage the need to develop a jaguar recovery plan and designate jaguar critical habitat, decisions that were rejected by the United States District Court of Arizona on March 30, 2009. The court held that:

The FWS [Service] determinations to not designate critical habitat or prepare a recovery plan are set aside, and this case is remanded to the FWS so that it may, consistent with this opinion, consider whether to designate critical habitat and prepare a recovery plan for the jaguar [based on available scientific research and reports]. The FWS shall make a determination as to critical habitat and recovery planning by January 8, 2010.<sup>[12]</sup>

Clearly, AGFD is attempting to ignore the historical record and to downplay the significance of lions inhabiting the desert to justify their lion management policies. Their assertion that lions on the KOFA are insignificant is also seriously flawed.

AGFDs untenable assumption that lions on the refuge are merely transients underlies the notion that lions captured on the KOFA are neither critical nor essential. To the contrary, KOFA lions are likely to be behaviorally and perhaps genetically adapted to the Sonoran Desert and thus are important evolutionarily. Desert bighorn sheep, in turn (as well as other animals and even plants), have adapted to mountain lions and were in part shaped by the presence of mountain lions. Desert-adapted mountain lions, therefore, are ecologically significant on the KOFA and throughout their Sonoran Desert habitat. Moreover, the Service has a longstanding biological directive to manage for biodiversity<sup>[13]</sup> of which lions are important components.

Choosing any other alternative than Alternative A will result in the continued systematic lion killing centered on animals captured on the KOFA. This will directly threaten to further destroy the widely-scattered regional lion population that is only tenuously connected to larger populations elsewhere, and which is already at risk of greater

isolation in the face of the exponential growth of Arizona's human population. It is reasonable to foresee that if the tiny population of lions in KOFA were to be eliminated, it might never become re-established.

There is no urgent need or logical reason to kill lions on behalf of the desert bighorn sheep herd on the KOFA. We understand that the KOFA region bighorn population is of great importance to AGFD as a source of bighorn transplants to restore bighorn to suitable habitat throughout the state/region or to augment existing herds. This objective must be considered in the context of what is going on overall with habitat, disease, and other factors. At its peak in both 1994 and 2000, the herd allegedly numbered slightly more than 800 animals. Though returning to this herd size has become AGFD's objective, this may be biologically and ecologically impossible as those historically high population estimates were recorded shortly after periods of larger than average precipitation in the region creating ideal habitat conditions that maximized production and survival. While such conditions could conceivably return in the future, managing a bighorn population and, consequently, imposing lion management strategies, to achieve a bighorn population level that is likely unattainable is biologically reckless and demonstrates the inadequacy of AGFD's single-species management strategy for the KOFA bighorn population. Moreover, the long-term historical average size of the KOFA bighorn population is closer to the current estimated population of 436 animals reported in November 2008.<sup>[14]</sup> Changes in the methodologies used to count bighorn, the typical wide confidence interval in annual censuses, and the multitude of factors that influence population numbers make it difficult to compare population estimates over time. Indeed, assuming past counts are accurate and comparable, today's population estimated at 436 animals is larger than the estimated population of 390 bighorn recorded in 2006 and of the estimated 200-375 bighorn reported on the KOFA from 1970-1978.<sup>[15]</sup>

Clearly, radio-collared mountain lions are far more valuable alive than dead. AGFD expends limited funds to study Arizona's wildlife species in order to, ostensibly, improve their management and to ensure that management strategies are based on the best available scientific information. Lions or other wildlife that are captured and collared represent a treasure trove of data on their movement, distribution, and habitat use patterns along with providing other pertinent ecological and biological information. For this reason, radio-collared animals are far more valuable, particularly from a scientific perspective, alive than dead. Given the limited number of desert-adapted lions in the Sonoran Desert and the paucity of information about the ecology and biology of these animals, it is imperative that any collared lions not be subject to intentional lethal removal by AGFD or any of its agents regardless of what alleged impact, if any, the animal is having on bighorn sheep or other prey species. The amount of valuable ecological and biological data that can be obtained from a collared lion surely is of greater value to the AGFD and its efforts to base its management strategies on sound scientific foundations, than the bighorn sheep or other prey species that the lion may kill to survive throughout its life. Regardless of a lion's alleged role in a bighorn sheep predation incident, it should not be killed in order to facilitate the ongoing collection of valuable scientific data on the movements, distribution, and habitat use patterns of the

lion and, due to ethical concerns inherent to using the collars signal to track and kill the animal.

Accordingly, Alternative A is necessary so that radio-collared mountain lions can continue to provide valuable scientific data to help improve species management. As an institution that should first and foremost base its management strategies on science and on adhering to its public trust responsibility for all of Arizonas native wildlife, we would hope that AGFD will retain collared lions to gather as much scientific data as is possible rather than act to prevent natural predation on bighorn sheep in a numerically secure bighorn population.

Not surprisingly, on September 25, 2009, AGFD submitted its comments to the EA and strongly supports Alternative B. They state that their decision is because [t]he scientific data collection and analyses conducted to date, has led the Department to believe that mountain lion predation is additive to other sources of mortality and sufficient to prevent the attainment of desert bighorn sheep population objectives on the Refuge.<sup>[16]</sup> Suspiciously, AGFD cite to absolutely no scientific evidence to support their conclusion. Accordingly, AGFDs comments to the EA, along with their lack of any sound scientific findings on which they base their decision, renders their response suspect, at best.

In conclusion, eliminating a natural carnivore like the mountain lion from KOFA reflects archaic and scientifically repudiated management. Until further research determines the reason behind the alleged decline in the bighorn population, it would be highly inappropriate, and possibly illegal<sup>[17]</sup>, to kill mountain lions. Accordingly, Alternative A is the only logical choice, and Alternatives B and C should not even be considered.

Please be advised that in the event Alternative A is not chosen, one or more organizations may pursue legal action to challenge the sufficiency of the EA and to secure greater protections for KOFAs small lion population. We hope no one will be forced to do that by a bad USFWS decision.

SW PEER may submit additional information and comments to USFWS as the draft EA process continues. Please keep us fully informed as the EA evolves.

Thank you,  
*Daniel R. Patterson*  
Ecologist & Southwest Director  
Public Employees for Environmental Responsibility (PEER.org)

738 N. 5th Av., #210  
Tucson AZ 85705 USA  
520.906.2159  
[swpeer@peer.org](mailto:swpeer@peer.org)

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<sup>[1]</sup> PEER is a national non-profit alliance of local, state and federal scientists, law enforcement officers, land managers and other professionals dedicated to upholding environmental laws and values, <http://www.peer.org/>.

<sup>[2]</sup> EA at 1; Executive Order 8039, Establishing the KOFA Game Range, January 25, 1939, 4 FR 438, Exec. Order No. 8039, 1939 WL 42154.

<sup>[3]</sup> EA at 1.

<sup>[4]</sup> Executive Order 8039, Establishing the KOFA Game Range, January 25, 1939, 4 FR 438, Exec. Order No. 8039, 1939 WL 42154.

<sup>[5]</sup> EA at 13.

<sup>[6]</sup> AGFD website, Wildlife & Conservation, Kofa National Wildlife Refuge, Disease Monitoring, retrieved on September 27, 2009 from [http://www.azgfd.gov/w\\_c/bhsheep/disease.shtml](http://www.azgfd.gov/w_c/bhsheep/disease.shtml).

<sup>[7]</sup> AGFD website, Wildlife & Conservation, Kofa National Wildlife Refuge, Press Releases and Media Communications, 2007 releases, 2007 Survey Results Released for Bighorn Sheep on the Kofa National Wildlife Refuge, AGFD and Service Joint News Release, December 21, 2007, retrieved on September 29, 2009 from [http://www.azgfd.gov/artman/publish/printer\\_691.shtml](http://www.azgfd.gov/artman/publish/printer_691.shtml).

<sup>[8]</sup> AGFD website, Wildlife & Conservation, Kofa National Wildlife Refuge, Press Releases and Media Communications, 2008 releases, 2008 survey results released for desert bighorn sheep on the Kofa NWR, AGFD and Service Joint News Release, November 26, 2008, retrieved on September 29, 2009 from [http://www.azgfd.gov/pdfs/w\\_c/bhsheep/2008surveyresults.pdf](http://www.azgfd.gov/pdfs/w_c/bhsheep/2008surveyresults.pdf).

<sup>[9]</sup> Id.

<sup>[10]</sup> AGFD website, Wildlife & Conservation, Kofa National Wildlife Refuge, Press Releases and Media Communications, 2009 releases, Biologists capture, collar and release mountain lion on Kofa NWR, News Release dated March 12, 2009, retrieved on September 30, 2009 from [http://www.azgfd.gov/w\\_c/bhsheep/documents/KM04CapturedandCollaronKofa.pdf](http://www.azgfd.gov/w_c/bhsheep/documents/KM04CapturedandCollaronKofa.pdf).

<sup>[11]</sup> Id.

<sup>[12]</sup> Center for Biological Diversity v. Kempthorne, et al., U.S. District Court, District of Arizona, Nos. CV 07-372 TUC JMR and CV 08-335 TUC JMR at 32; Center for Biological Diversity website, Species, Mammals, Jaguar, Key Documents, 2009 court ruling in favor of recovery plan and critical habitat, retrieved on September 30, 2009 from [http://www.biologicaldiversity.org/species/mammals/jaguar/pdfs/jaguar\\_ruling\\_033009.pdf](http://www.biologicaldiversity.org/species/mammals/jaguar/pdfs/jaguar_ruling_033009.pdf).

<sup>[13]</sup> See Directors Order No. 144 at Section 7e(4)(b) (managers and project leaders will manage landscapes with biodiversity and resource stewardship as primary goals). See also: Americas National Wildlife Refuge System Science Team website (The National Wildlife Refuge System Improvement Act of 1997 recognizes the complexities of natural resource management on refuges and calls for the integration of sound science in the Refuge Systems management. Ultimately, refuges are anchors for biodiversity and ecosystem-level conservation and leaders in wilderness preservation. Service website, Americas National Wildlife Refuge System, Conservation in Action Summit, Summit Teams, Science, retrieved on September 30, 2009 from <http://www.fws.gov/refuges/ConservationSummit/ScienceTeam/>.)

<sup>[14]</sup> See Footnote 8.

<sup>[15]</sup> AGFD website, Wildlife & Conservation, Kofa National Wildlife Refuge, References, Joint Investigative Report and Recommendations for the Kofa Bighorn Sheep Herd, prepared by AGFD and Service, April 17, 2007 at 6, retrieved on September 27, 2009 from [http://www.azgfd.gov/pdfs/w\\_c/bhsheep/Investigative%20Report%2004-17-2007.pdf](http://www.azgfd.gov/pdfs/w_c/bhsheep/Investigative%20Report%2004-17-2007.pdf).

<sup>[16]</sup> AGFD website, Wildlife & Conservation, Kofa National Wildlife Refuge, References, AZGFD letter to USFWS supporting "Proposed Action Alternative B" with recommended changes on draft environmental assessment, September 25, 2009 at 1-2, retrieved on September 30, 2009 from [http://www.azgfd.gov/pdfs/w\\_c/bhsheep/AZGFD\\_KofaDraftEA\\_comments\\_090925.pdf](http://www.azgfd.gov/pdfs/w_c/bhsheep/AZGFD_KofaDraftEA_comments_090925.pdf).

<sup>[17]</sup> On September 24, 2009, the Center for Biological Diversity sued AGFD in federal court in Tucson to prevent the agency from killing any more endangered jaguars. Center for Biological Diversity v. AGFD, U.S. District Court, District of Arizona; Center for Biological Diversity website, Press Release dated September 24, 2009: Conservationists Sue to Protect Endangered Jaguars From Arizona Game and Fish Department, retrieved on September 30, 2009 from [http://www.biologicaldiversity.org/species/mammals/jaguar/pdfs/Jaguar\\_Take\\_Complaint.pdf](http://www.biologicaldiversity.org/species/mammals/jaguar/pdfs/Jaguar_Take_Complaint.pdf).