HUMANE SOCIETY
INTERNATIONAL

January 27, 2015

Janine Van Norman
Chief, Branch of Foreign Species
U.S. Fish and Wildlife Service
5275 Leesburg Pike
Falls Church, VA 22041–3803.

Re: Comments from Petitioners on the Proposed Rule to List African Lions as Threatened with a Special Rule to Regulate Import, Export, Take, and Interstate Commerce of the Subspecies (Docket No. FWS–R9–ES–2012–0025)

Dear Chief Van Norman,

On March 1, 2011, the International Fund for Animal Welfare, Humane Society International, The Humane Society of the United States, Born Free USA, Born Free Foundation, The Fund for Animals (hereinafter "Petitioners"), and Defenders of Wildlife petitioned the U.S. Fish and Wildlife Service ("FWS" or "the Service") to list the African lion (*Panthera leo leo*) pursuant to the Endangered Species Act ("ESA", 16 U.S.C. § 1533). The petition and additional scientific information made available during the status review period and subsequently clearly demonstrate that the African lion is facing extinction throughout a significant portion of its range. Fewer than 40,000 African lions exist today, a population decrease of at least 48.5 percent over the past 22 years. Furthermore, the African lion now occupies only 22 percent of its historic range, and most populations are too small and isolated from other populations to be viable.

Recognizing that the subspecies is imperiled because of habitat loss and human-caused mortality, on October 29, 2014, the Service published a proposed rule to list African lions as threatened. 79 Fed. Reg. 64472. The Service also proposed to issue a special rule that would require threatened species permits for otherwise prohibited activities involving the subspecies (including import, export, take, and interstate commerce in lions and lion parts). *Id. See also* 50 C.F.R. §§ 17.31, 17.32. Petitioners applaud the Service for taking action to protect the only big cat that does not currently receive protection under the ESA, and we strongly urge the Service to proceed expeditiously to finalize this proposed regulation to promote the conservation of African lions. *See* 16 U.S.C. § 1533(b)(6)(A)(i)(I) (providing that

the Service shall finalize a proposed listing regulation within one year from the date it is published in the Federal Register).

Petitioners hereby submit the following comments on the Service's finding that listing is warranted and the need to strictly implement the ESA permitting system with respect to lions.

African Lion Survival is Threatened by Habitat Loss and Overutilization

As discussed in our petition and further below, the best available scientific and commercial data make clear that the threats to the continued existence of *Panthera leo leo* are operative and significant, and the Service is thus required to extend ESA protection to African lions. *See* 16 U.S.C. § 1531(b) (the primary purpose of the ESA is to "provide a program for the conservation of such endangered species"); 16 U.S.C. § 1532(3) (the term "conservation" means "to use…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").

The ESA requires listing determinations to be made "solely on the basis of the best scientific and commercial data available..." 16 U.S.C. § 1533(b)(1)(A). *See also New Mexico Cattle Growers v. U.S. Fish & Wildlife Service*, 248 F.3d 1277, 1284-85 (10th Cir. 2001) (*quoting* H.R. Rep. No. 97-567, pt. 1 at 29 (1982), "'The addition of the word 'solely' is intended to remove from the process of listing or delisting of species any factor not related to the biological status of the species.'"); H.R. Conf. Rep. No. 835, 97th Cong. 2d Sess. 19-20 (1982) (the limitations on the factors the Service may consider in making listing decisions were intended to "ensure that decisions . . . pertaining to listing . . . are based solely upon biological criteria and to prevent nonbiological considerations from affecting such decisions."). Thus, potential future economic impacts on the trophy hunting industry caused by the listing cannot be considered in evaluating the African lion's status.

- **<u>Habitat Loss is a Threat to African Lion Survival</u>**

New studies published since Petitioners filed their January 2013 comments on the Service's 90-day finding (77 Fed. Reg. 70727 (Nov. 27, 2012)) further demonstrate the need for the Service to regulate otherwise prohibited activities involving African lions. For example, a study by Peterson et al. (2014)[1] (which was not cited by FWS in the proposed rule) projected the impact of climate change on the distribution of the African lion by using ecological niche models combined with climate model scenarios for 2040-2070. The authors found that "there is little to inspire optimism regarding the future of lions" and predicted that ecological conditions in southern Africa will become less suitable for lions, while those in West Africa will become "distinctly less suitable or even uninhabitable". The authors conclude that "investments in conservation of lions are best focused in East African reserves that are most likely to be able to sustain populations in the medium term."

[1] A. Townsend Peterson, Thomas Radocy, Erin Hall, Julian C. Kerbis Peterhans and Gastone G. Celesia (2014). The potential distribution of the Vulnerable African lion *Panthera leo* in the face of changing global climate. Oryx, 48, pp 555-564. doi:10.1017/S0030605312000919.

As the Service acknowledged in the proposed rule, the plight of lions in West Africa is particularly bleak. Henschel et al. (2014)[2] estimate that of 21 protected areas surveyed in 11 countries in West Africa (Guinea-Bissau, Senegal, Mali, Guinea, Cote d'Ivoire, Ghana, Burkina Faso, Togo, Benin, Niger, and Nigeria), only *four* had lions; three of these protected areas had fewer than 50 lions and the only large population had an estimated 356 lions (range: 246-466). The authors estimate that the total number of lions remaining in West Africa is 406 and the range was estimated to be only 1.1% of the historic range in West Africa. The authors conclude that the lion has "undergone a catastrophic collapse in West Africa". Thus, in West Africa the lion satisfies the IUCN Red List criteria for a "critically endangered" listing because the population is declining, it has fewer than 250 mature individuals, and more than 90% of individuals are in one population.

Petitioners have argued that this subspecies is in danger of extinction because of habitat loss, and the Service has acknowledged that habitat loss is a severe threat throughout the African lion's range; thus, the subspecies must be listed under the ESA based on this factor alone.

- **Trophy Hunting is a Threat to African Lion Survival**

Petitioners agree with the Service's finding that human-lion conflict (e.g., retaliatory killing and loss of prey base) is a serious threat to African lion survival. 79 Fed. Reg. at 64498. But the best available scientific evidence further demonstrates that trophy hunting contributes to substantial declines in lion populations across African range states, and therefore puts the subspecies in danger of extinction. Thus, Petitioners strongly object to the Service's finding that "trophy hunting is not a significant threat to the species." 79 Fed. Reg. at 64494. Such finding is not supported by the administrative record and is contrary to multiple peer-reviewed studies, some of which the Service appears to have inexplicably ignored in its decision-making.

For example, with the world's preeminent lion scientist as the lead author, Packer et al. (2009)[3] and Packer et al. (2010)[4] identify trophy hunting as the likely cause of multiple lion population declines in Africa. In addition to direct population reduction through lethal take, trophy hunting poses a threat to lions because it can weaken a population's genetic constitution (e.g. Allendorf et al. 2008[5]). Because hunters target the biggest and strongest males, trophy hunting removes these animals from the breeding pool and unnaturally selects for smaller or weaker animals (Allendorf and Hard, 2009[6]). In this way, trophy

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[2] Henschel, P., Coad, L., Burton, C., Chataigner, B., Dunn, A., MacDonald, D., ... & Hunter, L. T. (2014). The lion in West Africa is critically endangered. PloS one, 9(1), e83500.

[3] Packer, C., Kosmala, M., Cooley, H.S., Brink, H., Pintea, L., Garshelis, D., Purchase, G., Strauss, M., Swanson, A., Balme, G., Hunter, L., and Nowell, K. (2009). Sport Hunting, Predator Control and Conservation of Large Carnivores. *PLoS ONE, 4*(6): e5941. DOI:10.1371/journal.pone.0005941

[4] Packer, C., Brink, H., Kissui, B.M., Maliti, H., Kushnir, H., and Caro, T. (2010) Effects of trophy hunting on lion and leopard populations in Tanzania. *Conservation Biology, 25,* 142–153.

[5] Allendorf, F.W., England, P.R., Luikart, G., Ritchie, P.A., and Ryman, N. (2008). Genetic effects of harvest on wild animal populations. *Trends in Ecology and Evolution, 23,* 327-337. doi:10.1016/j.tree.2008.02.008

[6] Allendorf, F.W. and Hard, J.J. (2009). Human-induced evolution caused by unnatural selection through harvest of wild animals. *Proceedings of the National Academy of Sciences of the United States of America, 106*, 9987-9994.

hunting can decrease genetic variation, shift the population structure, and cause unnatural evolutionary impacts (Allendorf et al., 2008). This effect has already been documented in other species. For example, selective hunting likely increased the occurrence of mature female African elephants (*Loxodonta africana*) lacking tusks from 10% to 38% in parts of Zambia over 20 years (Jachmann et al. 1995[7]), and recent studies of bighorn sheep suggest that horn size and body weight decreased over time as a result of trophy hunting (e.g. Coltman et al., 2003[8]; Festa-Bianchet et al., 2013[9]).

With respect to the African lion specifically, several recent studies have identified trophy hunting as a threat to the species. Notably, Sogbohossou et al. (2014)[10] studied lions in Pendjari Biosphere Reserve, Benin, which includes Pendjari National Park, Pendjari Hunting Zone, and Konkombri Hunting Zone. The authors concluded that the low lion density and small group size found in Pendjari is due to human disturbance and mortality through trophy hunting, and infer that this may also be the case in other protected areas in West and Central Africa. They also noted that the Pendjari lion hunting quota is three times higher than recommended by Packer et al. (2011), and the existing age limit for 'old males' is not enforced.

Additionally, a new study by Dolrenry et al. (2014)[11] (which was not cited by FWS in the proposed rule) describe lions as under threat in both Tanzania and Kenya where, despite the fact that the countries contain more than half of the remaining lions in Africa, lion populations are declining due in part to "overexploitation due to poor management of trophy hunting". The authors state that lion populations in East Africa exist in a metapopulation structure in which distinct populations exist in patches with limited migration or dispersal. The authors found that males are key to ensuring connectivity and occupancy of patches within a metapopulation because they show greater dispersal than females. However, the authors warned that "if male lions are not able to disperse from stable populations, as may be the case where adult male survival is low, i.e., sport hunting areas, this could result in a lower rescue effect for the broader metapopulation, causing an increased risk of extinction for local populations."

Another new study, by Groom et al. (2014)[12], which was not cited by FWS in the proposed rule, looked at lion population sizes in two areas in Zimbabwe using a direct method of counting lions. One of the study areas is a national park (Gonarezhou) surrounded by

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[7] Jachmann, H., Berry, P.S.M., and Imae, H. (1995). Tusklessness in African Elephants: a future trend. *African Journal of Ecology*, *33,* 230-235. DOI: 10.1111/j.1365-2028.1995.tb00800.x

[8] Coltman, D.W., O'Donoghue, P., Jorgenson, J.T., Hogg, J.T., Strobeck, C., and Festa-Bianchet, M. (2003). Undesirable evolutionary consequences of trophy hunting. *Nature*, *426,* 655-658. doi:10.1038/nature02177

[9] Festa-Bianchet, M., Pelletier, F., Jorgenson, J.T., Feder, C., and Hubbs, A. (2013). Decrease in Horn Size and Increase in Age of Trophy Sheep in Alberta Over 37 Years. *Journal of Wildlife Management*, *78*, 133-141.

[10] Sogbohossou, E. A., Bauer, H., Loveridge, A., Funston, P. J., De Snoo, G. R., Sinsin, B., & De Iongh, H. H. (2014). Social Structure of Lions (*Panthera leo*) Is Affected by Management in Pendjari Biosphere Reserve, Benin. *PloS one*, *9*(1), e84674.

[11] S. Dolrenry, J. Stenglein, L. Hazzah, R.S. Lutz, and L. Frank (2014). A metapopulation approach to African lion (*Panthera leo*) conservation. Plos One 9 (2), e88081.

[12] R.J. Groom, P.J. Funston and R. Mandisodza (2014). Surveys of lions Panthera leo in protected areas in Zimbabwe yield disturbing results: what is driving the population collapse? Oryx 2014: 1-9.

trophy hunting concessions; in the other area (Tuli) trophy hunting is permitted. The authors were able to directly count only ten lions in Gonarezhou and no lions in Tuli. However, based on prey density, the authors expected 248 lions to exist in Gonarezhou and 31 in Tuli. Therefore, lion density estimates were significantly lower using direct count methods than using estimates based on prey density. The authors state that previous lion population size estimates that relied on prey base, including often-cited papers by Chardonnet (2002), Bauer & van der Merwe (2004) and the IUCN Cat Specialist Group (2006), may have seriously over-estimated lion population sizes. The authors also concluded that the low densities of lions found are due to the collapse of these populations in the past because of "unsustainably high trophy hunting within Tuli and in the concessions around Gonarezhou …" in addition to other anthropogenic factors. Between 2001 and 2011, the lion quota for concessions around Gonarezhou totaled 74 male and 9 female lions, although no lions were hunted there since 2009. One Mozambique hunting area adjacent to Gonarezhou had a hunting quota of 7 male lions in 2009 which the authors point out was 14 times the recommendation for establishing lion hunting quotas. The Tuli area, which is much smaller than Gonarezhou, also had a high lion trophy hunting quota over the period of 2000-2009 of 16 males, which also exceeded the general recommendation; there was no lion hunting there in 2010-2011. The authors conclude that 'hunting has probably had a strong negative effect on lion abundance in both reserves."

Lindsey et al. (2014)[13] reviewed the functioning of Zambia's protected areas and game management areas (GMAs, where trophy hunting occurs), but this study was not cited by FWS in the proposed rule. The authors found numerous problems that pertain to management of trophy hunting (generally, not specific to lions except in one instance) in GMAs including: uncontrolled human immigration and open access to wildlife; the Zambia Wildlife Authority (ZAWA) retains most of income derived from trophy hunting, little of this income goes to people living in GMAs with affluent community members benefiting most, and there are frequent financial irregularities associated with the distribution of this income; scouts employed in anti-poaching in GMAs are poorly and irregularly paid, insufficiently trained and equipped, and inadequate in number; ZAWA is poorly funded, has an inadequate number of staff to protect wildlife against poaching (particularly 'resurgent' elephant poaching), has increased hunting quotas to unsustainable levels in GMAs in order to raise money (the authors state that ZAWA 'are sometimes forced to make decisions to achieve financial survival at the expense of the wildlife they are mandated to conserve'), establishes trophy quotas arbitrarily (the authors note that "quotas of lions have been particularly excessive"), and does not monitor wildlife populations or trophies; and hunting concession agreements are not effectively enforced and unscrupulous concession operators are not adequately punished. The authors blame these many failures for the low numbers and diversity of wildlife. Of relevance to lions, the authors note that "depressed prey populations means that predator populations are almost certainly also occurring well below historic densities."

[13] Lindsey, P. A., Nyirenda, V. R., Barnes, J. I., Becker, M. S., McRobb, R., Tambling, C. J., ... & t'Sas-Rolfes, M. (2014). Underperformance of African Protected Area Networks and the Case for New Conservation Models: Insights from Zambia. *PloS one*, *9*(5), e94109.

FWS also does not appear to have considered a new study by Rosenblatt et al. (2014)[14] that focuses on lions in South Luangwa National Park, Zambia, and associated Game Management Areas (GMAs, where trophy hunting occurs) from 2008-2012 (just before a hunting ban was instituted in January 2013) and found a declining lion population with low recruitment, low sub-adult and adult survivorship, depletion of adult males and an aging adult female population. Trophy hunting was the leading cause of death. The authors stated that the trophy hunting of male lions from the Park in the GMAs led to the turnover of male coalitions within the Park thereby "continually creating open territories and weakening established coalitions by removing their members." The authors looked at other possible factors that may have caused severe depletion of males but concluded, "it is unlikely that factors other than trophy hunting significantly contributed to the severe male depletion". Regarding their findings on low cub recruitment, the authors further state that "infanticide following turnover in male coalitions is well-documented in lions" and "increased turnover of male coalitions from trophy hunting is expected to produce the low cub recruitment that we observed"). The authors also recognize trophy hunting as one of the reasons for the decline of the lion throughout its range. The authors support continuation of the hunting ban to "at least 2016" to allow for recovery. Thereafter, they recommend substantially reduced quotas, age-limits, and effective trophy monitoring. Regarding the hunting ban, Zambia is considered to have one of the eight remaining lion strongholds and has a National Conservation Strategy and Action Plan for the Lion, published in 2009, the intent of which is to establish science-based policy. However, Zambia banned lion trophy hunting in January 2013 due to concerns over excessive quotas, mismanagement, lion declines and lack of scientific data (see: http://www.reuters.com/article/2013/01/10/uk-zambia-hunting-ban-idUSLNE90900T20130110).

Lion scientists have produced a steady drumbeat of warnings that trophy hunting across African range states is unsustainable and is a threat to survival of the species:

African Continent:

- Rosenblatt (2014): "…overharvesting of lions has been well-documented throughout Africa", recognize trophy hunting as one of the reasons for the decline of the lion throughout its range.
- Hunter et al. (2014): "there is considerable scientific evidence of negative population impacts associated with poorly-managed trophy hunting of lions." The authors state "there have been documented negative impact on lion populations resulting from trophy hunting" and call for lion trophy hunting reform.
- Lindsey et al. (2013) stated that, regarding the recent decline of lion populations, "Most of the factors that contribute to this decline are now well understood, although evidence of the impacts of trophy hunting on lions has only emerged relatively recently." The authors also state, "lion quotas remain higher than the 0.5/1,000 km2 recommended by [Packer et al. (2011)] in all countries except Mozambique" and "in all countries where data are available, harvests appear too high in a proportion of hunting blocks."

[14] Rosenblatt, E., Becker, M. S., Creel, S., Droge, E., Mweetwa, T., Schuette, P. A., ... & Mwape, H. (2014). Detecting declines of apex carnivores and evaluating their causes: An example with Zambian lions. *Biological Conservation*, 180, 176-186.

Zambia:

- Rosenblatt et al. (2014): found a declining lion population in South Luangwa National Park with low recruitment, low sub-adult and adult survivorship, depletion of adult males and an aging adult female population and attributed this to the "severe male depletion" caused by trophy hunting.
- Lindsey et al. (2014): numerous problems identified with trophy hunting in Zambia including that the Zambia Wildlife Authority establishes trophy quotas arbitrarily and "quotas of lions have been particularly excessive".
- Lindsey et al. (2013): "Excessive offtake from trophy hunting also lowered population density of lions and altered sex-ratios of lions in Hwange National Park, Zimbabwe, South Luangwa, Kafue and Lower Zambezi national parks in Zambia, and the Bénoué Complex in Cameroon." The authors also said that mean lion harvests are higher than Packer et al. (2011) 0.5/1,000 km^2 threshold in Zambia.

Tanzania:

- Dolrenry et al. (2014): populations in Tanzania are declining in part due to "overexploitation due to poor management of trophy hunting".
- Lindsey et al. (2013): "Trophy hunting has contributed to population declines outside (and inside some) protected areas in Tanzania, a country that holds between 30-50% of Africa's lion."

Zimbabwe:

- Groom et al. (2014): the low densities of lion populations in Gonarezhou National Park and trophy hunting concessions in Tuli are due to the collapse of these populations in the past due to "unsustainably high trophy hunting within Tuli and in the concessions around Gonarezhou …." The authors concluded, "hunting has probably had a strong negative effect on lion abundance in both reserves."
- Lindsey et al. (2013): "Excessive offtake from trophy hunting also lowered population density of lions and altered sex-ratios of lions in Hwange National Park, Zimbabwe, South Luangwa, Kafue and Lower Zambezi national parks in Zambia, and the Bénoué Complex in Cameroon."
- Lindsey et al. (2013): mean lion harvests are higher than Packer et al. (2011) 0.5/1,000 km^2 threshold in Zimbabwe.

Namibia:

- Lindsey et al. (2013): mean lion harvests are higher than Packer et al. (2011) 0.5/1,000 km^2 threshold in Namibia.

Cameroon:

- Lindsey et al. (2013): "Excessive offtake from trophy hunting also lowered population density of lions and altered sex-ratios of lions in Hwange National Park, Zimbabwe, South Luangwa, Kafue and Lower Zambezi national parks in Zambia, and the Bénoué Complex in Cameroon."

Burkina Faso:

- Lindsey et al. (2013): mean lion harvests are higher than Packer et al. (2011) 0.5/1,000 km2 threshold in Burkina Faso.

Benin:

- Sogbohossou et al. (2014): the low lion density and small group size found in Pendjari Biosphere Reserve in Benin is due to human disturbance and mortality through trophy hunting, the Pendjari lion hunting quota is three times higher than recommended by Packer et al. (2011), and the existing age limit for 'old males' is not enforced.

Instead of heeding these warnings, the Service took the position in the proposed rule that trophy hunting contributes to lion conservation by creating a revenue stream that could ostensibly be used to fund lion conservation efforts. *See* 79 Fed. Reg. at 64471, 64492, 64493, 64499. However, as demonstrated in our petition and subsequent comments, few of the potential dividends from hunting are consistently realized by local communities that live amongst lions. According to an IUCN analysis from 2009, big-game hunting only provided one job for every 10,000 inhabitants in the area studied,[15] and many of these jobs were temporary seasonal positions like opening the trails at the start of the hunting season (IUCN 2009[16]). Trophy hunting fails to create a significant number of permanent jobs (and those that it does create do not automatically benefit conservation), but ecotourism offers a possible solution. Consider the Okavango in Botswana where, as of 2009, a safari ecotourism tourism park provided 39 times the number of jobs than would big-game hunting on an area of equal size (IUCN 2009). Another example is the Luangwa National Park in Zambia, which produced twice the number of jobs provided by Benin and Burkina Faso's trophy hunting sector combined in 2007 (IUCN 2009).

The IUCN also found that Africa's 11 main big-game hunting countries only contributed an average of 0.6% to the national GDP as of 2009 (IUCN 2009). Of this marginal profit, studies suggest that as little as 3-5% of trophy hunting revenues are actually shared with local communities (Economists 2013[17]; IUCN 2009; Sachedina 2008[18]). Perhaps because of this, locals do not always view trophy hunting as the positive economic driver that hunting advocates portray it as. For example, villagers in Emboreet village in Tanzania characterized hunting as "destructive, exploitative, and disempowering," and blame hunting for jeopardizing village revenues (Sachedina et al. 2008). The same study presents an interview with a the Village Executive Officer, who explained that villagers feel more closely partnered with photographic tour operators than with hunters because hunters "are finishing off the wildlife before we've had a chance to realize a profit from it," and because villagers never see the 5% of revenue they are supposed to receive from trophy hunting (Sachedina et al. 2008).

By ignoring record evidence and new studies showing that trophy hunting is a significant threat to African lions, the Service's contrary finding on this point fails to comply with the ESA mandate that listing decisions be made on the basis of the best available scientific evidence. The Service's finding that recreational lethal take benefits a threatened species

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[15] South Africa, Namibia, Tanzania, Botswana, Cameroon, Central African Republic, Burkina, and Benin.

[16] IUCN. (2009). Programme Afrique Centrale et Occidentale. Big Game Hunting in West Africa. What is its contribution to conservation?

[17] Economists at Large. (2013). The $200 million question: How much does trophy hunting really contribute to African communities? A report for the African Lion Coalition, prepared by Economists at Large, Melbourne, Australia.

[18] Sachedina, H.T. 2008. "Wildlife Is Our Oil : Conservation, Livelihoods and NGOs in the Tarangire Ecosystem, Tanzania." University of Oxford. PhD. Thesis.

furthers the notion that imperiled lions are worth more dead than alive, which ultimately serves to undermine lion conservation. Trophy hunting is a significant threat to lion populations because it contributes to population declines, disrupts the social structures of lion prides, and weakens the population's genetic composition. As discussed further below, hunting quotas do not mitigate these impacts because they are often not scientifically supported and corruption impairs the efficacy of these and other wildlife enforcement laws and regulations. Furthermore, trophy hunting generates very few jobs and shares little revenue with local communities.

Thus, when the Service finalizes this rule, it must amend its finding to reflect that the African lion is also threatened with extinction in part as a result of trophy hunting (in addition to habitat loss and human-lion conflict). And once such listing is finalized, the Service must ensure that no permits are issued to import trophies when it cannot be guaranteed that the lethal take of that specific animal enhanced the survival of the subspecies.

FWS Must Strictly Regulate Import, Take, & Interstate Commerce in African Lions

Pursuant to the ESA and Fish and Wildlife Service regulations, once the Service lists a species as threatened, individuals of the species, whether captive or wild, may not be subjected to import, export, take, or interstate commerce, unless such action is conducted pursuant to a permit or a special rule. 16 U.S.C. § 1538(a); 50 C.F.R. §§ 17.31, 17.32, 17.40. Special rules must be designed and implemented to promote the conservation of the species. *See Sierra Club v. Clark*, 755 F.2d 608 (8th Cir. 1985). The Service has proposed to adopt a special rule for African lions that would require a threatened species permit for all otherwise prohibited activities (79 Fed. Reg. at 64502). In order to ensure that this special rule is implemented in a manner to actually promote the conservation of African lions (as required by law), the Service must strictly scrutinize such permit applications and ensure there is transparency in that process.

As an initial matter, Petitioners applaud the Service for finding that the presumption that imports of threatened species on CITES Appendix II serve a conservation purpose is easily rebutted with respect to African lions. 79 Fed. Reg. at 64501; 16 U.S.C. § 1538(c)(2). Indeed, it is imperative that the Service exercise stringent oversight of any imports of African lions and African lion parts, as the international trade in trophies, claws, teeth, and other specimens drives unsustainable take of the subspecies for recreational purposes. While it is not the Service's standard policy to publish notice and solicit comment on threatened species permits, Petitioners strongly urge the Service to do so at least with respect to permits involving imports of African lions, as soliciting scientific input would improve the Service's analysis of whether a specific import would promote the conservation purpose of the ESA.

Threatened species permits, which the Service has proposed to apply to African lions, can only be issued for conservation purposes. 16 U.S.C. § 1531(c)(1) (FWS "shall seek to conserve endangered and threatened species and shall utilize [its] authorities in furtherance of the purpose[]" of the ESA, i.e., *conservation*, 16 U.S.C. § 1531(b)). FWS regulations provide for threatened species permits for scientific purposes, the enhancement of propagation or survival, economic hardship, zoological exhibition, educational purposes,

or incidental taking. 50 C.F.R. § 17.32. In deciding whether to issue a threatened species permit, the FWS must consider "[t]he probable direct and indirect effect which issuing the permit would have on the wild populations of the wildlife sought to be covered by the permit;" "[w]hether the permit . . . would in any way, directly or indirectly, conflict with any known program intended to enhance the survival probabilities of the population from which the wildlife sought to be covered by the permit was or would be removed;" "whether the purpose for which the permit is required would be likely to reduce the threat of extinction facing the species"; "[t]he opinions or views of scientists or other persons or organizations having expertise concerning the wildlife or other matters germane to the application;" and "[w]hether the expertise, facilities, or other resources available to the applicant appear adequate to successfully accomplish the objectives stated in the application." 50 C.F.R. § 17.32(a)(2).

The most logical way to ensure that otherwise prohibited activities promote conservation is to analyze threatened species permits under the enhancement standard (e.g., in order for use of a threatened species for scientific purposes, zoological exhibition, or educational purposes to benefit conservation efforts, as required by the ESA, such activities must actually enhance the survival of the species). As the plain language of the statute makes clear, enhancement authorization may only be issued for activities that *positively benefit* the species in the wild. *See also* U.S. Fish and Wildlife Service Handbook (1996) (making clear that an enhancement activity "must go beyond having a neutral effect and actually have a positive effect").

- **<u>Permits for Lion Imports Should be Rarely, if Ever, Issued</u>**

Because lions are not native to the U.S., the import of lions and lion parts makes up a significant portion of the activity that the Service will need to oversee once this rule is finalized. Our March 2011 petition documented that the African lion was over-utilized and that the U.S. is a major importer of African lions and their parts. Specifically, we found that that between 1999 and 2008[19] the U.S. imported 13,484 lion specimens reported as being from a wild source (62 percent of the total), which is the equivalent of at least 4,021 lions; this averages to 402 wild-source lions per year. An updated search of U.S. imports using the same methodology reveals that the U.S. imported the parts of at least 2,205 wild-source lions from 2009-2013 (Table 1, Annex Table A1), which averages to 441 wild-source lions per year. This indicates that the annual average number of wild-source lions imported to the U.S. over the last five years has increased by approximately 39 lions per year or 9.7% over the annual average during 1999-2008.

Our petition also found that between 1999 and 2008 the U.S. imported about 3,600 wild-source lions just for hunting trophy purposes; this averages to 360 wild-source lions per year. An updated search of U.S. imports using the same methodology reveals that the U.S. imported the parts of a minimum of 2,163 wild-source lions for hunting trophy purposes from 2009-2013 (Table 1, Annex Table A1), which averages to 432 wild-source lions per year. This indicates that the annual average number of wild-source lions imported to the U.S. over the last five years has increased by approximately 72 lions per year or about 20% over the annual average during 1999-2008.

[19] Based on a search of the CITES Trade Database using methodology described in our petition.

Table 1. Summary: Gross imports to U.S. of *Panthera leo* specimens equal to one lion each from wild sources

Term	Purpose	2009	2010	2011	2012	2013	Subtotals
bodies	H	5	3	0	2	0	10
live	H	0	0	8	0	0	8
skins	H	40	39	63	100	36	278
trophies	H	436	416	347	376	292	1867
live	P	1	0	0	0	0	1
skins	P	6	3	1	1	0	11
trophies	P	10	4	1	2	2	19
bodies	T	1	0	1	0	0	2
skins	T	0	1	0	1	2	4
trophies	T	2	2	1	0	0	5
Subtotals		501	468	422	482	332	2205

Purpose codes: H = hunting trophy; P = personal; T = commercial

Further, UNEP-WCMC (2014)[20] provides an analysis of CITES trade records from the CITES Trade Database pertaining to international trade in lion trophies for the years 2003-2012. The report also looks at "threats, uses and management" and notes that many authors have noted concerns with existing management of trophy hunting in many areas.

Consequently, the threat of over-utilization caused by the importation of wild-source African lions – including that for trophy hunting purposes – to the U.S. has *increased* since our petition was filed. Thus, it is essential that the Service require permits for African lion imports so that such applications can be rigorously evaluated to ensure that no imports are allowed if the lion was taken in an unsustainable manner.

- **FWS Must Annually Review Range State Management Plans**

The Service acknowledged in its proposed rule that lion trophy hunting is "a highly complex issue that has raised considerable controversy" and that if lions are hunted in a country that does not have a "scientifically based management program" such hunting should not be sanctioned via an import permit. *See* 79 Fed. Reg. at 64488, 64492-93, 64501. According to the proposed rule, in 2013 trophy hunting of wild lions occurred in nine countries: Benin, Burkina Faso, CAR, Mozambique, Namibia, RSA, Tanzania, Zambia, and Zimbabwe. 79 Fed. Reg. at 64488. Further, it is well established that canned hunting of captive lions in South Africa accounts for a substantial portion of the lion trophies imported into the U.S.

Before issuing a threatened species permit for the import of a lion trophy or part, the Service must evaluate whether the source country has established a scientifically based management program that is developed and implemented to promote the conservation of the species in each management area. Petitioners recommend that the Service determine on an annual basis whether it could make an enhancement finding for each country where lion hunting occurs. In order to facilitate that evaluation, the Service should adopt criteria that range state and management area plans must meet. Petitioners generally support the

[20] UNEP-WCMC (2014). Review of trophy hunting in selected species. UNEP-WCMC, Cambridge.

concepts behind the "best practices" referenced in the proposed rule: quota-setting; moratoriums; minimum age requirements; minimum trophy quality, sizes, and standards; wildlife hunting regulations enacted and enforced; professional hunting training courses; professional hunter standards established; compliance with CITES demonstrated; monitoring; and information and data collection and analysis. 79 Fed. Reg. at 64491.

With respect to quotas, Petitioners would note that the mere requirement that quotas are established is not enough. Lion trophy hunting quotas are not usually established on a scientific basis and are instead based on personal opinions influenced by the presence of problem animals (Lindsey et al. 2013; Packer et al. 2009). As of 2013, lion quotas in all countries except Mozambique were higher than the 0.5/1,000 km^2 recommended by Packer et al. (2010) (Lindsey et al. 2013). And even if quotas or other trophy hunting regulations were developed using ideal scientific data and methodology, poor enforcement due to corruption often render them unsuccessful in curbing the negative effects of trophy hunting. It is well documented that corruption is prevalent in some lion range countries and that it weakens the enforcement of wildlife protection laws (e.g. IUCN 2009; Kideghesho 2008[21]; Kimati 2012[22]). We applaud the Service for acknowledging that the high financial investment associated with lion trophy hunting makes it a target for corruption (79 Fed. Reg. at 64471). While it is admirable that some countries are taking action to combat corruption, it is unreasonable to assume that corruption will decline to a level where its inhibitory impacts can be discounted in the near future.

Many well-respected lion experts agree that "there is considerable scientific evidence of negative population impacts associated with poorly-managed trophy hunting of lions." Hunter et al. (2014)[23]. The authors point to examples of such poor management practices in South Luangwa, Kafue and Lower Zambezi National Parks in Zambia; Tuli Safari Area, Gonarezhou National Park and Hwange National Park in Zimbabwe; the Bénoué Complex in Cameroon; and in the entire country of Tanzania. The authors list the five problems that likely cause these negative impacts:

- Usually, lion hunting quotas are not science-based and there is no population monitoring.
- Quotas are set too high. There is documented scientific evidence that lion quotas and offtake in "several countries" are higher than populations can sustain.
- "Several countries" have fixed quotas where hunting operators are charged for a proportion of the total regardless of the number of animals hunted which encourages them to kill all the animals on the fixed portion of the quota "regardless of sustainability".
- Age restrictions are applied only in Tanzania, western Zimbabwe and Niassa National Reserve in Mozambique.
- Females can be hunted in Namibia and Zimbabwe.

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[21] Kideghesho, J.R. (2008). Who Pays for Wildlife Conservation in Tanzania and Who Benefits? Faculty of Forestry and Nature Conservation, Department of Wildlife Management, Sokoine University of Agriculture, P.O. Box 3073, Morogoro Tanzania.

[22] Kimati, B. (2012). Tanzania: Kagasheki Warns Corrupt Hunters. Tanzania Daily News (Dar es Salaam. Available at: http://allafrica.com/stories/201209060195.html, Accessed 1/13/2015.

[23] Hunter, L., Lindsey, P., Balme, G., Becker, M., Begg, C., Brink, H. …White, P., Whitman-Gelatt, K. (2014). Urgent and comprehensive reform of trophy hunting of lions is a better option than an endangered listing; a science-based consenus [sic]. Unpublished.

Hunter et al. make the following recommendations on reforming lion trophy hunting:

- Establish, implement and enforce a rule to restrict trophies to males of six years of age or older in all range States. Compliance should be evaluated by "multiple independent assessors at a central repository to ensure consistency." Penalize operators by reducing quotas if they shoot underage lions and reward elevated quotas to those who shoot lions in accordance with the rule. For monitoring, operators should be required to submit a completed questionnaire, photographs and x-ray analysis of pre-molar teeth for each lion shot.
- Independent lion hunting and trophy monitoring by scientists, NGOs, etc. instead of governments to ensure transparency and objectivity. Submission of information hunting (such as hunt effort) and trophies (such as age of animal) to the monitoring body should be mandatory and a pre-requisite for receiving an export permit. Over time, the monitoring body could use changes in measured variables to set quotas that prevent over-harvesting.
- Until age restrictions and trophy monitoring are in place, implement maximum quotas (such as Packer's general figure of 0.5 lions per 1,000 km^2) to prevent excessive harvest.
- Restrict harvest to males.
- Stop 'fixed quota fees" whereby operators pay for lions before they are hunted, thus encouraging more lions to be shot because they have "been paid for".
- Unified approach to lion hunting amongst the 11 countries where it occurs so that no one country would be disadvantaged by the reforms, and the benefit to lions of the reforms could be spread over all countries.

Similarly, Lindsey et al. (2013)[24] identified the following 'key problems and necessary interventions' associated with the management of lion trophy hunting:

- The basis for the establishment of quotas is arbitrary; they are not established in a scientific manner, instead being established on personal opinion including that of hunting operators or on problem animal reports. The authors recommend immediate establishment of quota caps following recommendation of Packer et al. (2011) for setting thresholds for offtake, until age restrictions, trophy monitoring and adaptive quota management are put into place.
- Lack of enforced age restrictions.
- The hunting of females is permitted in Namibia.
- Fixed quotas encourage more lions to be killed.
- Lack of minimum hunt lengths in some countries is a problem because hunters do not have time to be selective and longer hunts can bring in more money. The authors recommend a 21-day hunt minimum.
- General problems associated with management of trophy hunting include:
    - Corruption: Thus it is important that lion hunting management is done transparently with "independent verification of processes such as quota setting, concession allocation and trophy monitoring."
    - Closed tender systems for hunting concession allocation: Need to award hunting concessions to those who have a good track record.

[24] Lindsey, P. A., Balme, G. A., Funston, P., Henschel, P., Hunter, L., Madzikanda, H., ... & Nyirenda, V. (2013). The trophy hunting of African lions: Scale, current management practices and factors undermining sustainability. PloS one, 8(9), e73808.

- Short lease periods for concessions encourages over-use.

Rosenblatt et al. (2014) also provide a synopsis of practices that have been proposed to help ensure that lion hunting is sustainable: "conservative quotas (0.5 lions/1000 km^2)" (Packer et al. 2011), "harvest restricted to older age-classes, changes in the quota allocation structure and accurate and transparent trophy monitoring and enforcement" (Lindsey et al. 2013a), "close monitoring to prevent unsustainable harvesting", and a rotation of hunting between the populations on a three year cycle.

Therefore, in addition to annually reviewing each range state management plan, Petitioners strongly urge the Service to establish formal guidance on how permit biologists should evaluate each application to import a lion trophy. For example, in order to make an enhancement finding and issue a permit, the range state from which the trophy originated must:

- Have an approved and current National Lion Management Plan, which develops and implements conservation activities for specific lion conservation units and works in concert with regional lion management plans,
- Such national management plans should be developed using the IUCN SSC guidelines for strategic conservation planning, based on scientific information, and implemented in a manner that benefits the species and provides economic incentives for local communities to protect and expand African lion habitat.

In addition, the Service must verify whether a range state:

- Has up-to-date estimates on lion distribution range, abundance, prey abundance, and status
- Observes a precautionary approach to establishing hunting quotas given current lion status
- Has an understanding of national lion population levels and trends
- Carries a credible capacity to monitor and manage lion populations in order to maintain healthy numbers and genetic diversity
- Appoints an identified national lion plan coordinator
- Has an understanding of the biological needs of the species
- Has sound management practices including law enforcement capabilities to deter or punish illegal retaliatory killings
- Involves local communities in lion protection and conflict mitigation strategies
- Implements a human-lion conflict management plan (including rapid response, mitigation approaches, a training component, education)
- Actively promotes wildlife-integrated land-use to ensure land-use planning does not negatively impact lion conservation
- Achieves conservation targets within identified time frames
- Reports on the achievements of stated goals and monitors and evaluates the implementation of the plan, and adapts it as necessary

Before the Service issues an import permit, it must also find that the range state:

- Is in compliance with all international, regional and national commitments, agreements and regulations relating to wildlife (and specifically lion) conservation, including (but not limited to) CITES

- Has effective laws and enforcement against illegal wildlife (particularly lion) trade
- Cooperates with neighboring countries for transboundary lion population conservation and monitoring
- Has a system for measuring good governance when it comes to wildlife conservation/protection policy making and its implementation (for example, transparency International's corruption perception index)
- Has credible policies for managing any hunting offtake, including:
    - A science-based system for establishing hunting quotas which is demonstrably sustainable at a population level
    - Price-setting (taxes and minimum number of safari days) and a system of concession leasing that increase the value of lions across Africa (no competition on price)
    - Hunting moratoria for any declining populations
    - Quotas restricted to post-reproductive males older than six years with a verifiable and enforceable mechanism to ensure no subadults are taken
    - An adaptive management policy of monitoring the impacts of the removal of individuals on remaining populations , and adjusting quotas accordingly
    - A demonstrable commitment to ensure proceeds of trophy hunting are used to benefit wildlife (and specifically lion) conservation and communities living with wildlife.

In the proposed rule, the Service suggests that "range countries have recognized the need to incorporate best management practices, and have been progressively updating their policies and management systems in order to implement them" (79 Fed. Reg. 64471). While this is commendable, the Service also concedes that there is no information indicating that these best practices have been employed yet (79 Fed. Reg. at 64471). Petitioners have reviewed publicly-available lion management plans, and most available plans are woefully insufficient to promote lion conservation. Notably, Lindsey et al. (2013) identified keys to successful management of lion trophy hunting and then explained how each country that allows lion trophy hunting does not meet all of these (see table below).

Poor lion trophy hunting management practices (from Lindsey et al. 2013)	**Reason the practice is problematic according to Lindsey et al. 2013**	**Country with lion trophy hunting**										
		Mozambique	**Namibia**	**Tanzania**	**Zambia**	**Zimbabwe**	**Benin**	**Burkina Faso**	**Cameroon**	**CAR**	**South Africa**	**Botswana**
Closed tender for hunting concessions exist	Guarantees operator access to lions in the concession even if he/she has exceeded quotas, hunted underage lions, etc.	x	x	x	x	x					Not assessed	Not assessed
Short lease on hunting concessions (5 years or less) exist	Encourages operators to take as many lions as possible because they will not have the concession after the short lease.		x	x		x	x					
Hunting quotas based on factors other than science	Quotas must be based on the best available science and not on hunting concession operator's	x	x	x	x	x		x	x	x		

	opinion or problem animal reports.											
Mandatory quota payment ('fixed quota') exist	Encourages operators to kill all the lions they have paid for.		x	x	x	x				x		
Hunt return form is not mandatory and is not tied to obtaining export permit	Mandatory hunt return forms are necessary to monitor hunting and trophies, and must be tied to obtaining an export permit as an incentive to operators to cooperate.	x	x	x			x	x	x	x		
No 21-day minimum hunt length	A 21-day minimum gives hunters more time to find an older male, and returns more money to the system.	x	x		x	x	x	x	x	x		
Females can be hunted	Hunting females can cause increased cub mortality, and removes productive individuals from the population, thereby reducing the ability of the population to recover.		x									
6-year age minimum not in place	Males aged 6 years and older can be removed without reducing the population.		x		x	x	x	x	x	x		

Thus, it is clear that there are **certain permits that cannot be lawfully issued**, as the import of such trophies would actively undermine the conservation of African lions:

- **The Service cannot authorize imports of trophies from West Africa.**

There is abundant evidence that lions in West Africa are perilously close to extinction – Peterson et al. (2014) show that lion habitat in West Africa is rapidly diminishing due to climate change, and Henschel et al. (2014) show that lions in this region have recently undergone a "catastrophic collapse." Thus, the Service cannot lawfully issue any import permits for trophies or parts originating from such countries (Benin, Burkina Faso, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, or Togo). Notably, the European Union has also suspended lion trophy imports from Benin and Burkina Faso (as well as Cameroon in Central Africa) (*see* http://www.speciesplus.net/#/taxon_concepts/6353/legal).

- **The Service cannot authorize imports of trophies from Tanzania or Zimbabwe**.

The Service should not issue any import permits for lion trophies hunted in Tanzania or Zimbabwe, as the Service has already made findings that those countries are incapable of sustainably managing trophy hunting of elephants. *See* 79 Fed. Reg. 44459, 44460 (July 31, 2014) ("Without management plans with specific goals and actions that are measurable and reports on the progress of meeting these goals, the Service cannot determine if…Zimbabwe is implementing, on a national scale, appropriate management measures for its elephant populations."); U.S. Endangered Species Act Enhancement Finding for Tanzanian

Elephants (http://www.fws.gov/international/pdf/enhancement-finding-2014-elephant-Tanzania.PDF) ("Questionable management practices, a lack of effective law enforcement, and weak governance have resulted in uncontrolled poaching and catastrophic population declines in Tanzania."). These systemic wildlife management problems are also relevant to lion trophy hunting, and the Service cannot be confident at this point that lion hunts in Tanzania or Zimbabwe are sustainable and promote conservation of the subspecies. *See also* Zimbabwe Parks and Wildlife Management Authority (2014). Response on Implementation of CITES in the European Union on Importation of the African Lion (*Panthera leo*) into the European Union (Nov. 5, 2014) (conceding that Zimbabwe's lion quotas are not scientifically based and that Zimbabwe allows unsustainable hunting of young male lions).

- **The Service cannot authorize imports of trophies from any females or males under 6 years of age.**

Regardless of where the hunt occurs, it is well-established that lethal take of female lions negatively impacts the subspecies' reproductive success, and the Service therefore cannot make an enhancement finding for imports of female lion trophies. Similarly, as discussed at length in our Petition and at the African Lion Workshop, lethal take of male lions under 6 years of age causes cascading impacts on lion populations, leading to increased infant mortality and undermining conservation of the species. Thus, the Service must not issue any permits if the applicant cannot prove that the male lion was 6 years of age or older when hunted. Additionally, as the Service has suggested for leopards and elephants, there should be a cap on the number of lion trophies an applicant can import (no more than one per year).

- **The Service cannot authorize imports of trophies obtained from captive hunting facilities.**

As the Service has acknowledged, when a subspecies is listed under the ESA, such listing clearly applies to any individual of the listed entity, whether living in captivity or in the wild. *See* 16 U.S.C. § 1533(b) (making clear that the take prohibition applies to captive animals regardless of the date of listing); 16 U.S.C. § 1538(a)(1) (prohibiting the take of "any" endangered species); H.R. Rep. No. 93-412 (1973) ("[t]he term 'fish or wildlife' means all wild animals, whether or not raised in captivity"); 42 Fed. Reg. 28052 (June 1, 1977) ("captive individuals provide gene pools that deserve continued preservation, and such individuals make it possible to re-establish or rejuvenate wild populations," and "[f]or these reasons, the Service will continue to enforce the stringent prohibitions of the Act as they relate to captive individuals of a species that is endangered in the wild…"); 44 Fed. Reg. 30044 (May 23, 1979) ("The Service has consistently maintained that the Act applies to both wild and captive populations of a species…"); 63 Fed. Reg. 48634, 48636 (September 11, 1998) (explaining that "take" was defined by Congress to apply to endangered or threatened wildlife "whether wild or captive" and conceding that "It is true that the Act applies to all specimens that comprise a 'species'" and "does not distinguish between wild and captive specimens thereof"); 77 Fed. Reg. 431, 434 (Jan. 5, 2012) (the ESA "specifically covers any species that is listed as endangered or threatened, whether it is native to the United States or non-native and whether it is in captivity or in the wild."); 78 Fed. Reg. 33790 (June 5, 2013); 78 Fed. Reg. 35201, 35204 (June 12, 2013) ("the Act does not allow for captive-held animals to be assigned separate legal status from their wild counterparts on

the basis of their captive state, including through designation as a separate distinct population segment (DPS). It is also not possible to separate out captive- held specimens for different legal status under the Act by other approaches…"); 79 Fed. Reg. 4313, 4317 (Jan. 27, 2014) ("The ESA does not support the exclusion of captive members from a listing based solely on their status as captive.").

Captive hunting of imperiled animals and the trade of the animals' body parts as trophies can have a negative impact on wild populations (as well as severe welfare impacts on individual animals). The Service itself has recognized that "uses of captive wildlife can be detrimental to wild populations" because "consumptive uses," including captive hunting, can "stimulate a demand for products which might further be satisfied by wild populations." 44 Fed. Reg. 30,044, 30,045 (May 23, 1979). Creating legal markets for endangered and threatened species and their parts can encourage and facilitate poaching and create demand for wild members of those species. *See* Valerius Geist, *How Markets in Wildlife Meat and Parts, and the Sale of Hunting Privileges, Jeopardize Wildlife Conservation*, CONSERVATION BIOLOGY, Vol. 2, Issue 1 at 16 (Mar. 1988) (U.S. wildlife conservation has been "based on three primary policies ... 1) the *absence* of market in the meat, parts, and products of [wildlife,] 2) the allocation of the material benefits of wildlife by law, not by the market place . . ., 3) the prohibition on frivolous killing of wildlife"); David M. Lavigne, *et al.*, *Sustainable utilization: the lessons of history*, THE EXPLOITATION OF MAMMAL POPULATIONS 251, 260 (Victoria J. Taylor *et al.* eds., 1996) (establishment of "legal markets for valuable wildlife product . . . provide[s] incentives for poaching [because] when the prices of wildlife products are sufficiently high, they also attract criminal elements into poaching, making wildlife protection not only increasingly difficult but also dangerous"); Lavigne, *et al.*, at 258-260 ("Generally, putting a price on dead wildlife almost invariably leads to over-exploitation and increases the 'extinction potential' of target species"); Hunter, *et. al*, INTERNATIONAL ENVIRONMENTAL LAW & POLICY at 1035 (Foundation Press 1998) (Excerpt) ("Trade is responsible for an estimated 40% of vertebrate species facing extinction. Ironically, market forces can exacerbate the threats from illegal trade, for as species become rarer their value on the market increases to reflect this scarcity, increasing the incentive for further poaching"); *see also* Valerius Geist, *North American Policies of Wildlife Conservation*, WILDLIFE CONSERVATION POLICY (Geist and McTaggart-Cowan eds 1995).

Lion experts agree that "Captive-bred hunting undermines the conservation credibility of the hunting industry and does nothing to preserve lion habitat". Packer et al. (2006)[25]; Luke Hunter et al., *Walking With Lions: Why There Is No Role for Captive-Origin Lions* Panthera leo *in Species Restoration*, Oryx Vol 47(1), 19-24 (2013), *available at* http://www.panthera.org/sites/default/files/HUNTER-2012-WalkingWithLions-ORYX.PDF (experts, including members of the IUCN Species Survival Commission Cat Specialist Group, agree that facilities that breed lion cubs (and prematurely separate those cubs from their mothers for hand-rearing) to provide lions for tourist interactions do not contribute to conservation). *See also* Chloe Cooper, *How Lions Go From the Petting Zoo to the Dinner*

[25] Packer, C., Whitman, K., Loveridge, A., Jackson, J. & Funston, P. (2006*). Impacts of trophy hunting on lions in East and Southern Africa: Recent off take and future recommendations* (Background paper for the Eastern and Southern African Lion conservation workshop). Johannesburg, South Africa. P. 9.

Plate, Africa Geographic (Aug. 4, 2013) http://blog.africageographic.com/africa-geographic-blog/hunting/how-lions-go-from-the-petting-zoo-to-the-dinner-plate/; *Threat to Conservation: Lion Bone Trade on Rise*, The Times of India (June 25, 2013) http://timesofindia.indiatimes.com/home/environment/flora-fauna/Threat-to-conservation-Lion-bone-trade-on-rise/articleshow/20754330.cms (noting that lion bones are being used as substitutes for tiger bone potions and the value of a lion skeleton could therefore be in excess of $10,000); Jacalyn Beales, *Canned Hunting and Cub-Petting are Big Business in South Africa*, Earth Island Journal (Jan. 20, 2015), *available at* http://www.earthisland.org/journal/index.php/elist/eListRead/canned_hunting_and_cub-petting_are_big_business_in_south_africa?utm_content=bufferf9f87&utm_medium=social&utm_source=facebook.com&utm_campaign=buffer (discussing the lucrative industry in South Africa whereby captive lions are bred to produce a maximum number of offspring, cubs are hand-reared to sell photographic opportunities to tourists, and once the cubs get too large they are sold for captive hunts); Clarissa Ward, *The Lion Whisperer*, CBS News – 60 Minutes (Nov. 30, 2014), *available at* http://www.cbsnews.com/news/the-lion-whisperer/ (reporting from a sanctuary that houses lions rescued from the canned hunting industry, noting that such animals cannot be reintroduced into the wild after being hand-reared).

Further, as discussed at the Service's African Lion Workshop on June 26, 2013, there is a significant problem with lions from South Africa being traded internationally under CITES permits that do not accurately represent their wild or captive origin. Similarly, the CITES Animals Committee has recognized the detrimental impacts of international trade in other African big cats (cheetahs) – in East Africa, wild cheetahs are being traded under the guise of being captive bred, and in South Africa there is no evidence that captive-breeding is properly managed. *See* CITES Animals Committee, *Illegal Trade in Cheetahs (*Acinonyx jubatus*)*, Decision 16.72, AC27 Doc. 18 (2014), *available at* http://cites.org/sites/default/files/eng/com/ac/27/E-AC27-18.pdf.

Currently, U.S. hunters are importing staggering numbers of trophies and parts obtained (allegedly) from captive hunting facilities. Between 2009 and 2013, the parts of approximately 1,962 captive-bred African lions and 13 captive-born lions were imported to the U.S. (Tables 2 and 3, Tables A2 and A3). This includes 1,860 trophies of which 1,848 were imported for hunting trophy purposes, 10 for personal purposes, and 2 for commercial purposes; all but four of these originated in South Africa (Tables A2 and A3).

Table 2. Summary: Gross imports to U.S. of *Panthera leo* specimens equal to one lion each from captive-bred sources

Term	Purpose	2009	2010	2011	2012	2013	Subtotals
bodies	H	0	41	0	0	0	41
skins	H	2	7	19	0	0	28
trophies	H	379	311	375	453	321	1839
live	P	0	0	0	0	2	2
skins	P	0	1	2	1	0	4
trophies	P	1	3	1	1	4	10
bodies	T	0	0	1	2	0	3
live	T	0	0	25	4	4	33
trophies	T	0	0	0	2	0	2

Term	Purpose	2009	2010	2011	2012	2013	Subtotals
Subtotals		382	363	423	463	331	1962

Purpose codes: H = hunting trophy; P = personal; T = commercial

Table 3. Summary: Gross imports to U.S. of *Panthera leo* specimens equal to one lion each from born in captivity (F1) sources

Term	Purpose	2009	2010	2011	2012	2013	Subtotals
bodies	H	1	0	0	0	0	1
trophies	H	1	0	1	6	1	9
live	T	0	0	0	0	3	3
Subtotals		2	0	1	6	4	13

Purpose codes: H = hunting trophy; P = personal; T = commercial

Thus, the Service must rigorously evaluate future applications for imports of captive-hunted trophies and parts, in the same vein as it evaluates applications for imports of wild-sourced lions. Given the abundant evidence that the captive hunting industry in South Africa and elsewhere fails to promote the conservation of the subspecies, the Service cannot lawfully authorize imports of specimens obtained from such origins.

- **The Service cannot authorize domestic trade in lion parts.**

Neither the international or domestic trade in lion parts (e.g., claws, teeth, pelts, meat) can be said to enhance the survival of African lions, and must be strictly prohibited. Further, the Service must make clear to the regulated community that once lions are listed as threatened, interstate sale and interstate commercial transport in lion meat is prohibited. Eating lion meat as a novelty clearly does not benefit the conservation of the species, and it would be unlawful for the Service to authorize domestic trade in lion meat (whether the meat originated from a wild lion or from a lion raised in captivity in the U.S.).

Conclusion

Petitioners (joined by over 58,000 of their members) strongly urge the Service to expediently issue a final rule listing African lions as threatened with a special rule requiring threatened species permits for all otherwise prohibited activities. Such permits must only be issued for activities that demonstrably enhance the survival of wild lions. The Service should annually review the management plan(s) for each country where lion hunting occurs, using the criteria established by experts and outlined herein, to ensure that permit applications to import lion trophies are strictly scrutinized. The Service cannot lawfully issue trophy import permits for any female lions or male lions under six years of age, as the lethal take of such animals undermines the conservation of the species. Further, the Service must not issue import permits for trophies or parts originating from West Africa, Tanzania, Zimbabwe, or any canned hunting facility, and the Service must make clear that domestic trade in parts is prohibited.

Respectfully submitted,

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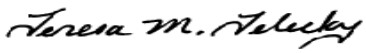

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ANNEX

Table A1. Detail: Gross imports to U.S. of *Panthera leo* specimens from wild sources

Term	Purpose	Country	2009	2010	2011	2012	2013	Subtotals
bodies	H	CA	3	2	0	0	0	
bodies	H	NA	0	1	0	0	0	
bodies	H	ZA	2	0	0	2	0	
Subtotals			5	3	0	2	0	10
bones	H	NA	4	0	0	0	0	
bones	H	TZ	2	0	0	0	0	
bones	H	ZA	10	22	14	21	18	
bones	H	ZW	0	0	0	26	2	
claws	H	NA	6	2	0	0	0	
claws	H	TZ	0	8	0	0	0	
claws	H	ZA	16	14	30	58	95	
claws	H	ZW	0	0	0	0	16	
derivatives	H	ZA	0	2	1	0	0	
feet	H	ZA	0	4	4	0	0	
garments	H	ZA	1	0	1	2	0	
live	H	ZA	0	0	8	0	0	8
skins	H	MX	1	0	0	0	0	
skins	H	MZ	3	1	19	9	9	
skins	H	NA	1	0	0	1	0	
skins	H	TZ	31	23	1	5	5	
skins	H	ZA	1	14	23	46	0	
skins	H	ZW	3	1	20	39	22	
Subtotals			40	39	63	100	36	278
skulls	H	CA	3	3	0	1	0	
skulls	H	MZ	1	1	21	8	8	
skulls	H	SA	1	0	0	0	0	
skulls	H	TZ	31	23	0	5	8	
skulls	H	ZA	14	25	30	53	2	
skulls	H	ZW	6	3	28	41	22	
tails	H	ZA	0	0	0	1	0	
teeth	H	ZA	0	10	4	0	0	
trophies	H	AD	0	0	2	0	0	

Term	Purpose	Country	2009	2010	2011	2012	2013	Subtotals
trophies	H	AE	1	0	0	0	0	
trophies	H	BF	1	0	0	0	3	
trophies	H	BW	1	4	2	0	1	
trophies	H	CA	0	4	0	2	0	
trophies	H	CF	0	0	1	1	0	
trophies	H	CM	0	1	0	0	0	
trophies	H	ET	0	1	0	1	0	
trophies	H	FR	0	1	1	1	0	
trophies	H	MX	1	0	1	1	0	
trophies	H	MZ	8	10	7	5	4	
trophies	H	NA	7	7	10	7	6	
trophies	H	TW	0	0	0	0	0	
trophies	H	TZ	91	64	37	42	3	
trophies	H	ZA	249	260	236	217	214	
trophies	H	ZM	31	26	17	50	17	
trophies	H	ZW	46	38	33	49	44	
Subtotals			436	416	347	376	292	1867
bone pieces	P	ZW	0	0	0	0	5	
bones	P	ZA	4	0	0	0	0	
bones	P	ZW	0	0	0	0	15	
claws	P	GB	0	0	0	5	0	
claws	P	ZA	18	2	0	1	0	
derivatives	P	ZA	3	0	0	0	0	
garments	P	ZW	0	1	0	0	0	
leather products (small)	P	ZA	0	0	0	6	0	
live	P	KE	1	0	0	0	0	1
skin pieces	P	NA	1	0	0	0	0	
skin pieces	P	ZA	1	0	0	0	0	
skins	P	CA	0	0	1	0	0	
skins	P	NA	1	1	0	0	0	
skins	P	ZA	5	1	0	1	0	
skins	P	ZW	0	1	0	0	0	
Subtotals			6	3	1	1	0	11
skulls	P	AU	0	0	0	2	0	
skulls	P	NA	1	0	0	0	0	
skulls	P	NO	1	0	0	0	0	
skulls	P	ZA	2	2	1	1	0	
skulls	P	ZW	0	2	0	0	0	

Term	Purpose	Country	2009	2010	2011	2012	2013	Subtotals
tails	P	ZA	0	0	0	1	0	
teeth	P	ZA	0	2	0	6	0	
trophies	P	FR	1	0	0	0	0	
trophies	P	IT	0	0	0	0	0	
trophies	P	NA	3	0	0	1	2	
trophies	P	ZA	6	2	1	1	0	
trophies	P	ZW	0	2	0	0	0	
Subtotals			10	4	1	2	2	19
unspecified	P	GB	0	1	0	0	0	
bodies	T	GB	1	0	0	0	0	
bodies	T	ZA	0	0	1	0	0	
Subtotals			1	0	1	0	0	2
claws	T	TZ	0	0	0	0	2	
claws	T	ZA	12	0	1	0	74	
derivatives	T	GB	0	1	0	0	0	
garments	T	ZA	0	0	0	0	1	
skins	T	ET	0	1	0	0	0	
skins	T	ZA	0	0	0	1	2	
Subtotals			0	1	0	1	2	4
trophies	T	CA	0	1	0	0	0	
trophies	T	ZA	1	1	1	0	0	
trophies	T	ZW	1	0	0	0	0	
Subtotals			2	2	1	0	0	5

Purpose codes: H = hunting trophy; P = personal; T = commercial

Table A2. Detail: Gross imports to U.S. of *Panthera leo* specimens from captive-bred sources

Term	Purpose	Country	2009	2010	2011	2012	2013	Subtotals
bodies	H	ZA	0	41	0	0	0	41
bone pieces	H	ZA	0	0	0	2	3	
bones	H	ZA	42	18	503	4	8	
claws	H	ZA	4	54	6	33	72	
feet	H	ZA	0	0	3	0	0	

Term	Purpose	Country	2009	2010	2011	2012	2013	Subtotals
garments	H	ZA	0	0	1	0	0	
skins	H	ZA	2	7	19	0	0	28
skulls	H	CA	0	0	0	0	2	
skulls	H	ZA	4	6	22	13	1	
teeth	H	ZA	2	0	0	0	0	
trophies	H	CA	0	0	0	0	2	
trophies	H	NA	0	0	0	1	1	
trophies	H	ZA	379	311	375	452	318	
			379	311	375	453	321	1839
bones	P	ZA	0	0	0	8	0	
carvings	P	ZA	0	0	0	0	1	
claws	P	ZA	36	2	8	0	27	
garments	P	ZA	1	1	0	0	0	
live	P	MX	0	0	0	0	2	2
skins	P	CA	0	0	1	0	0	
skins	P	ZA	0	1	1	1	0	
			0	1	2	1	0	4
skulls	P	ZA	0	0	1	1	0	
trophies	P	ZA	1	3	1	1	4	10
bodies	T	BE	0	0	0	2	0	
bodies	T	FR	0	0	1	0	0	
			0	0	1	2	0	3
live	T	BO	0	0	25	0	0	
live	T	ZA	0	0	0	4	4	
			0	0	25	4	4	33
trophies	T	ZA	0	0	0	2	0	2

Purpose codes: H = hunting trophy; P = personal; T = commercial

Table A3. Detail: Gross imports to U.S. of *Panthera leo* specimens from born in captivity (F1) sources

Term	Purpose	Country	2009	2010	2011	2012	2013	Subtotals
bodies	H	ZA	1	0	0	0	0	1
trophies	H	ZA	1	0	1	6	1	9

Term	Purpose	Country	2009	2010	2011	2012	2013	Subtotals
live	T	ZA	0	0	0	0	3	3

Purpose codes: H = hunting trophy; P = personal; T = commercial