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† BERTRAND DES CLERS

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Chief, Branch of Foreign Species
Endangered Species Program
U.S. Fish and Wildlife Service
4401 North Fairfax Drive
Room 420
Arlington, VA 22203
Tel: 703-358-2171

Public Comments Processing
ATTN: FWS-R9-ES-2012-0025
Division of Policy and Directives Management
USF&WS
4401 North Fairfax Drive
MS 2042-PDM
Arlington, VA 22203

RE: Comment on ESA status review of African Lion, 77 FR 70727, November 27, 2012
Docket FWS-R9-ES-2012-0025; 450 0030115

This is a comment in opposition to the petition to list the African lion as endangered throughout Africa. The comment is on behalf of Conservation Force, a 501(c)(3) international foundation deeply involved as a participant in African lion conservation and management in most African lion range countries. The opposition is also on behalf of the other organizations cited below. Conservation Force is a member of IUCN and three of its Board Members have been or are members of the IUCN Cat Specialist Group (Dr. James Teer, Dr. Bertrand des Clers and Dr. Philippe Chardonnet) and three have been or are members of the African Lion Working Group (ALWG) (Dr. Philippe Chardonnet, Dr. Bertrand des Clers and undersigned John J. Jackson, III). Conservation Force is the 18th largest conservation NGO in Africa and has expended approximately one and one-half million dollars in lion conservation in the past decade.

Conservation Force commissioned *Conservation of the African Lion: Contribution to a Status Survey, 2002*, commonly called the *Chardonnet Study*, which study of the African lion was the most comprehensive study ever done of any wild cat at the time it was completed. That study included the range and habitat of lion, the best population estimates and even an important chapter on the "driving forces" of its status. Attached in full. Though now 10 years have

passed, the Study was based upon the best available estimates and data of the experts and authorities in each respective country, not a mere desk study or limited to estimates based upon analysis of available habitat and modeling or subjective opinion about remotely related governance. The Study was largely compiled from direct consultations with experts and has undergone extensive review by experts. It was and remains the best available information on the status of the lion which generally has not changed over the past decade. See *The Size of Savannah Africa: A Lion's (Panthera leo) View*, 2012, attached (“broadly similar and...surely indistinguishable”).

Conservation Force also participated in the two-part WCS conservation lion units determination and IUCN West and Central Africa Regional Action Planning Workshop in 2005. See reports and Action Plan, attached. The first part was entitled *Conservation Priority – Setting for the Lion in West and Central Africa*, Hotel Arcade, Douala, Cameroon, 2-4 October, 2005 (attached) and was jointly conducted by WCS and the IUCN Cat Specialist Group. That was followed by the *IUCN Workshop to Develop a Logical Framework for Conservation Strategies for Lions in West and Central Africa*, also in Hotel Arcade, Douala, Cameroon, 5-7 October, 2005 (attached).

Conservation Force also participated in the similar joint Southern and Eastern Africa WCS and IUCN Eastern and Southern African Lion Workshop, held January 8-13, 2006 in Johannesburg, that developed the *Regional Conservation Strategy for the Lion (Panthera leo) in Eastern and Southern Africa*, 2006, attached.

Those two regional WCS workshops identified three categories of long-term conservation units (LCUs) where populations with significant numbers of lion and secure habitat were expected to survive one hundred years or more, category 1 LCUs. This too was the best available information from the scientists, authorities and experts gathered together from the respective regions which included range state government representatives, national and international conservation NGO representatives, lion scientists and tourist hunting representatives.

Conservation Force also participated in the Cameroon workshop entitled *International Seminar on the Conservation and Management of Lions and Other Large Carnivores in West and Central Africa*, February 2009, Cameroon (attached), and most recently the African Lion Working Group (ALWG) Etosha Lion Workshop in February, 2012.

Conservation Force has led a campaign to step down the Regional Action Plans from the (1) West and Central Africa and (2) East and Southern Africa LCU and action planning workshops to National Action Plans. See action plans and preparatory status reviews, attached. Conservation Force has been a participant in nearly every planning workshop for national action plans across Africa. Moreover, Conservation Force has initiated and supported local action plans for lion conservation. See the SAVE Conservancy action plan or, attached as an example, *The SAVE Valley Conservancy Lion Management Plan*, Dr. P. J. Funston, 2011, and attached comment materials from both Bubyee Conservancy and SAVE Valley Conservancy.

Conservation Force has also been the leader in researching and broadcasting best tourist hunting practices, particularly the 6 year approach in Tanzania, Mozambique, Zambia and, most recently, Benin. See Conservation Force's three lion aging conservation publications and related articles, attached. *A Hunter's Guide to Aging Lions in Eastern and Southern Africa* (K. Whitman, C. Packer; 2007), *A Regional Guide to Aging Lions in Zambia* (P. A. White; 2010), *Pocket Guide to Aging Lions* (K. Whitman; 2010). Note that the materials are being translated into French.

Conservation Force has initiated and supported many dozens of African lion field research and management projects across the entire African continent concerning lion aging methodology, anti-poaching, lion/human and livestock conflicts, local population surveys and implemented communal-based natural resource management projects to increase community benefits, participation and tolerance of lion, education films and programs and much more.

We have also been a leader in leopard and cheetah conservation projects and planning which bear some relationship to lion conservation (not attached, but available). Despite the expenditure of hundreds of thousands of dollars and partnering with the foremost cat experts in the world, we have had little conservation success with the cheetah because of its ESA endangered listing.

Position

Based upon the best available scientific and commercial data, the African lion is not in danger of extinction. Too many lion populations are secure in too large a part of its ranges. See *Chardonnet Study*, pgs. 23-80 and IUCN Regional Workshop LCUs and National Action Plans and status reviews, attached. The two *Regional Workshops* and resultant *Regional Action Plans* appropriately fit the two ranges of the African lion. The genetics, habitat, prey base, etc. of the two ranges are distinct. Though the lion may be threatened with endangerment in the foreseeable future in a significant part of its Western and perhaps its Central Africa range, it is not threatened in its Southern and Eastern Africa range. It is not in danger of extinction in either range, 1.) Western and Central Africa, 2.) Eastern and Southern Africa. Witness the LCUs, particularly the Selous (stable for decades), Kruger (stable for +30 years), Okavango, the Kalahari, the Niassa Reserve (1,000 lion and increasing), the Serengeti, etc. These are the largest protected areas in the world. Compare the Yellowstone National Park in the U.S. (2.22 million acres) with Serengeti National Park (3.65 million acres), Kruger National Park (4.81 million acres), Selous Reserve (11.07 million acres), Niassa Reserve (10 million acres), Hwange National Park (3.62 million acres), Kafue National Park (3.54 million acres), Etosha National Park (5.51 million acres) and Chobe National Park (2.89 million acres), etc. These national parks and reserves all have stable or growing lion populations and are LCUs or parts of CLUs (lion conservation units) or "strongholds" in Eastern and Southern Africa.

Few if any species has had the benefit of the region/range and national action planning that the lion has had in the last decade. The workshops and action planning mimic that of the African elephant. The range countries should be applauded for their uncommon efforts and their

expert designed action plans should not be obstructed. The status reviews and conservation planning of the lion are well underway. Stakeholder groups have been formed and are working on lion conservation across the continent. The conservation efforts are as genuine as they are uncommon. All of this should stem the loss of lion and help secure its perpetuation. The lion is not endangered range-wide. It has a high level of threat in parts of West Africa and a lower level of threat in Central Africa but is certainly not ESA threatened in its East/Southern Africa range. The IUCN treats the lion as vulnerable (VU A2 abcd; CSG 2004) throughout Africa with the justification:

A species population reduction of >30 - <50 percent is suspected over the past two decades (1984-2004) (three lion generations = 19/5 years). The cause of this reduction are not well understood, are unlikely to have ceased, and may not be reversible.

The two primary individual authors of that CSG evaluation added that they thought the West (not the Central) region/range was regionally endangered by Red List standards, but, of course, the IUCN Red Lists species by continental scale, not regionally, so the West African designation does not follow IUCN protocol. We must add that the “suspected” 30 to 50 percent decline in two decades of the two individual authors is gross speculation because of the lack of earlier population data. Lion have never been abundant in forested West or Central Africa. Moreover, trade was not thought to be a significant cause of the “suspected” decline.

The protected habitat, secure prey base, strategic planning, formation of the stakeholder/stewardship groups, sustainable use and improving regulated hunting practices ensure the long-term survival of the lion in the wild, particularly in its Eastern/Southern African range.

Supporting Organizations

The following organizations join in this opposition comment: Dallas Safari Club, Dallas Ecological Foundation, Houston Safari Club, African Safari Club of Florida, Shikar Safari Club International, Wild Sheep Foundation, Grand Slam/OVIS, International Professional Hunters Association, National Taxidermist Association, Professional Hunters Association of South Africa.

Population Status

The *Chardonnet Study* is still the best available scientific information on the population status of African lion to date. No study has directly consulted more expert lion authorities in each of the respective countries or has been more comprehensive. The study goes beyond the status of habitat, range and populations. It addresses the “driving forces.” *Conservation of the African Lion: Contribution to a Status Survey*, 2002, pg. 102-150. Attached in full.

The Bauer and Van Der Merwe Report, 2004, was a “partial review” not as comprehensive as the *Chardonnet Study* nor did it consult as many experts (16,500 to 30,000). The data arose

from an “information exchange workshop of the ALWG in 2001.” It excluded significant populations in Tanzania and other areas. See DVD being sent by postal mail, *The Fate of the African Lion*, IUCN Analysis, etc., attached. Though it was published in 2004, the data was largely collected in 2001 but not published as such until 2004. See IUCN Red List analysis, attached in full. Thus, the distinction between the two studies should not be represented or understood to reflect a decline between 2002 and 2004. The *Chardonnet Study* was more comprehensive and included more experts and areas than the ALWG “partial” estimate. See *The Fate of the African Lion* (1) and (2) DVD being sent by postal mail.

The more recent estimate, *The size of savannah Africa: a lion’s (Panthera leo) view*, Jason Riggio, et al., July 2012, attached, states that its “numbers are similar to previous estimates.” The estimate is 32,000 to 35,000 lions with “24,000 lions in strongholds, with an additional 4,000 in potential ones (strongholds).” The authors conclude that “the numbers (between the estimates over the past decade including Chardonnet) are broadly similar and...surely indistinguishable.” Attached.

The most recent LionAID estimate, though interesting reading, is by a single individual that is based upon nothing more than the subjective opinion of that individual, not attached. It is not the best available information or in any way comparable to that of the *Chardonnet Study* (direct communication and collection of estimates of foremost experts and authorities) and the WCS Western/Central Region and Southern/Eastern Region Workshops that had more experts from most countries making objective expert estimates.

In West Africa, the population exceeds 800. Chardonnet, pg. 44. “The most important in the whole Western African range” is 450 individuals in Eastern Burkina Faso, pg. 44. In the Singou-Arly complex they reach a remarkable density of 5 animals per 100 km² because of the abundant prey base in the protected areas and hunting areas, pg. 44. Ditto the northern part of Benin. These important populations are relatively secure because of the associate tourist hunting areas.

The *Chardonnet Study* showed 7 Western Africa subpopulations decreasing, 10 stable, one increasing, pg. 47. In Central Africa, the *Chardonnet Study* concluded 7 subpopulations were stable, 9 were decreasing and one was increasing, pg. 59. The lion in the Waza National Park have substantially decreased since the closure of hunting, Chardonnet pg. 52.

The *Chardonnet Study* estimated the lion in Africa in 2002 to be 28,854 minimum to 47,132 maximum, with an estimated average of 39,373, pg. 32. This can’t really be compared to the Nowell and Jackson 1996 gross “guesstimate” of 30,000 – 100,000 animals that had little or no scientific basis or modeling without more. See IUCN Red List explanation, attached.

The Present or Threatened Destruction, Modification or Curtailment of the Habitat or Range

An incredible amount of habitat in Africa has been secured for the lion and is suitable for its prey base and long-term survival. The national parks, tri-national parks, transfrontier areas and

the designated wildlife management /hunting areas are all considered protected areas by IUCN standards. The Kruger, Niassa, Okavango, Kalahari, Selous, Hwange and Serengeti lion populations are all stable or growing and the associated habitat and prey base are secure. These are among the largest protected areas in the world (see relative size on pg. 3).

The *Chardonnay Study* covers the range and habitat of lion extensively (attached). The two WCS/IUCN regional workshops determined what lion habitat constituted Lion Conservation Units, LCUs, where lion are secure for the next 100 years (see attached working papers with three categories of LCUs – what the recent Duke modeling calls “strongholds”). Regardless of historic losses of habitat, the present range of lion is largely secured as well as augmented by hunting areas.

Of course, the lion in forested (tropical rainforests) Africa (Western and Central) has never been as numerous as in its Southern/Eastern Africa savannah range, Nowell and Jackson, 1996.

It must be noted that many range countries have used not only gazettement of protected areas but also sustainable use to maintain, increase or otherwise expand the habitat of lion outside of protected areas, i.e. tourist safari hunting. This was also the finding and recommendation of the two WCS/IUCN regional action planning workshops in 2004 and 2005, attached. “[T]he total amount of land set aside for hunting exceeds the total area of national parks (Table 2), potentially doubling the amount of land available for lion,” Craig Packer.

Note that Tanzania has set aside 33% of its total area including 190 hunting units. The hunting areas are 5.1 times greater than Tanzania’s fully protected and gazetted parks. This strategy has greatly expanded and maintained a significant number of lion and lion prey while incentivizing local people to tolerate the lion. The available habitat and prey is far greater than it would be if the hunting areas were reduced. *The Significance of African Lions for the Financial Viability of Trophy Hunting and the Maintenance of Wild Land*, attached.

It must be noted that 21-day long safaris with all the attendant daily concession fees paid to both the wildlife department and communities have to be paid to hunt lion in Tanzania regardless of the success of the hunt (harvesting a 6 year old lion). This makes the lion far more important to the wildlife department operating budget and community revenues than the number of lion taken suggests. The importance of tourist hunting can’t be overstated. The low ratio of the lion actually taken to the respective conservation revenue bears noting. The 21-day requirement has enormous benefits to habitat, wildlife budgets, communities and the viability of the tourist hunting safari industry and habitat.

Note attached Buby Valley Conservancy in Zimbabwe safari data. Lion hunting has the highest daily rate (\$2,650.00 per day), the longest minimum number of days that must be booked and the highest trophy fee (\$24,500.00) versus cheetah that can’t be imported into the United States due to the “endangered” listing on the ESA. Lion are key species for safari hunting because they command the highest trophy and daily fees and are used to sell entire packages even though a lion is not necessarily taken. Ditto Buby Conservancy, materials also attached.

Namibia has expanded the range and available habitat of lion through sustainable use in its communal conservancies such as WWF's Life Plus program and private conservancies as well. Consequently, the lion population in Namibia is expanding and dispersing in still other habitat areas. It has reached capacity in Etosha National Park (5.51 million acres) and is expanding in both communal and private conservancies. See article attached about exceptional growth rate.

By design, lion have been reintroduced and are expanding in some habitat areas across Africa from Burkina Faso in West Africa to SAVE Valley Conservancy (1 million acres – lion at capacity; <http://savevalleyconservancy.org>) and Buby Valley Conservancy (850,000 acres – lion at capacity; <http://bubyvalleyconservancy.com>) in Zimbabwe to Pilanesberg National Park in RSA (171,376 acres – lion at capacity; <http://www.pilanesbergnationalpark.org>). See attached statements and management plans. Such successful models based upon sustainable use would be compromised by an “endangered” listing. These are examples of developing models of sustainable use that have proven to work to increase available lion habitat and prey. The long-term survival of the lion will continue to benefit from this expanded habitat-based sustainable use strategy and associated prey base and incentives.

Overutilization

The 90-day finding cites the assertion in the petition to list that the “African lion is overutilized to a great extent from trophy hunting” (Petition, pp. 22-23; Packer, et al., (p.2)) but that “[t]he overall effect of trophy hunting...is currently unclear.” We disagree with the assertion in the petition. Today trophy hunting is well regulated and limited, regardless of isolated short-term effects or historical practices.

First, the amount of trophy trade of wild lion is greatly overstated and misunderstood. See the attached report and clarifications from the World Conservation Monitoring Centre of the United Nations Environment Programme (UNEP-WCMC). Both Packer and the petitioners misunderstand, overstate and misuse the WCMC data. For example, where 105 lion are said to have been exported from Zambia to Russia, in reality 105 bones and parts of one single lion were exported. See attached clarification from WCMC. Craig Packer was also told this by peer reviewers, including the undersigned, but disregarded it. His inexperience with the figures and the agenda of the petitioners does not change the facts for those sophisticated with the nuances of the CITES/WCMC reporting system. Packer himself has written that “the level of lion trophy hunting has been prudent in most countries over the past 30 years, tourist hunting provides an important incentive to conserve wildlife habitat in 8 of the 12 countries...” Attached.

Aside from RSA where trade is almost totally of surplus, intensively bred lion, continent-wide approximately 194 lion were harvested in regulated tourist trophy hunting in 2012. Tanzania's take in 2012 was approximately 50. Botswana's tourist safari hunting of lion has been closed due to the value system of the dictatorial President, Ian Kama, but had been only one per concession, i.e. 30 total per year for nearly two decades. Zambia's quotas were reduced and

were down to approximately 50 (now temporarily closed). Zimbabwe's offtake is approximately 70. Mozambique's take is approximately 15. Namibia's take is approximately 10. Angola is in a transitional state with no tourist hunting at all. Ethiopia has been allocating one a year in case of problem animal control. West and Central Africa's quotas are far lower. Benin is approximately 6, Cameroon is approximately 6 and Burkina Faso is also 6. Adjustable quotas don't threaten or endanger a species with fecundity as robust as lion. No lion population has been extirpated by tourist safari hunting. See *Urgent and Comprehensive Reform of Trophy Hunting of Lions is a Better Option Than an Endangered Listing: A Science-Based Consensus*; "We know of no case where trophy hunting has caused or contributed to the extinction of a lion population," attached. African countries have demonstrated a willingness to adaptively adjust quotas and to completely close hunting. Licensed, regulated hunting is the core of the lion conservation strategy in Southern and Eastern Africa, as well as Western and Central Africa. It is cited as a primary means of sustaining the lion in the Regional and National Action Plans, attached. That speaks for itself.

Third, the tourist safari hunting community has been the leader in adopting practices that enhance the value and trophy status of the lion with concomitant increase in local tolerance, increase in management revenue, increase in conservation incentives, decrease in biological impact of offtake (aged lion approach), etc. Conservation Force has been the leader of the lion age approach commonly called the "6 year" approach or rule, which greatly, if not wholly, reduces the biological impact of tourist hunting of lion. See attached Conservation Force publications *A Hunter's Guide to Aging Lions in Eastern and Southern Africa*, *A Regional Guide to Aging Lions in Zambia* and *Pocket Guide to Aging Lions*. Also see 5-6 year approach in *Sustainable Trophy Hunting of African Lion*, K. Whitman, et al., attached. The leading Tanzania hunting operators were the first to adopt the aged lion approach in the early 90s. This was followed by the 6 year approach adopted by TAHOA at the suggestion of Craig Packer, 2004. Niassa Reserve, including its buffer zone, adopted the 6-year approach at the suggestion of Dr. Craig Packer and John J. Jackson, III, undersigned. Then Tanzania made it a national regulation and in Zambia, PHAZ (Professional Hunters Association of Zambia) adopted the age-based approach as a practice under the guidance of Dr. Paula White. Tanzania is in the process of adding restrictions including limits on the number of adult male lion per hectare as per recommendation of Dr. Craig Packer. Thus Tanzania will soon have redundant, dual restrictions/limits that are both habitat and age-based.

The tourist hunting community is trying hard to conserve lion and are among the primary stakeholders and participants in lion survival. They are a driving force for conservation. No group has been investing more in lion management and conservation. The tourist hunting stakeholders have led the campaign for both regional conservation strategies, the adoption of national action plans and are helping step down action planning and implementation for local lion populations. See attached plans and strategies and the respective country data in each (SAVE Conservancy, Life Plus, Buby Valley Conservancy, etc.). Conservation Force has expended approximately 1.5 million, SCI approximately 1 million and has just (January 26, 2013) raised another million and Shikar Safari Club \$450,000 on lion conservation in the past seven years.

The two-part Regional IUCN and WCS Workshops did not conclude that tourist trophy hunting endangered the lion (2005, 2006). To the contrary, tourist hunting was in all cases viewed as part of the action plan to secure the survival of the lion, its prey and habitat, to positively incentivize local people and reduce the human/livestock lion conflict (attached).

Many in the cat conservation community, including the Cat SG and its affiliated African Lion Working Group (ALWG), did not consider the primary causes of this suspected decline to be trade-related (Nowell, 2004) and priorities for lion conservation have been identified as resolving human-lion conflicts and stemming loss of habitat and wild prey (Nowell and Jackson, 1996; Chardonnet, 2002; Bauer and Van Der Merwe, 2004)

Regional Conservation Strategy for the Lion (Panthera leo) in Eastern and Southern Africa, 2006, attached.

Fifth, the 2009 Packer article cited by petitioners is incorrect and contrary to the expert opinion of peer reviewers in the respective countries and industry described. Packer incorrectly surmises that tourist hunting caused a crash in lion populations in each of the cited countries because the WCMC records he misunderstands and misrepresents to indicate a sharp decline due to hunting at various historical points in time. Worse, he simply assumes any apparent decline in trophy exports in WCMC data was caused by overhunting. That is a grossly incorrect assumption. He wholly fails to recognize that in each instance the apparent trade level (export of lion trophies) sharply increased after the decline which, of course, contradicts his speculation and demonstrates the short-term impact not to be endangerment, if true. He neglects to consider that the short decline in Tanzania followed the September 11 terrorist attack in New York that impacted all international travel and tourism for two years or more. See attached worldwide tourism reports. It also followed the U.S. recession in March 2001 through May 2002. He neglects to include the fact that leopard and other exports in other countries such as Namibia fell during the same period, which again suggests the short-term decline in trophy trade was more related to the terrorist attack and economic realities worldwide (recession). See attached *Recreational Hunting as a Conservation Tool: Successes, Failures and Challenges*, Robert W.G. Jenkins, with graphs of leopard exports in Tanzania and cheetah exports in Namibia mimicking Packer's so-called decline of lion in Tanzania at the same point in time. Trophy trade in RSA fell during the same period and the SCI Convention attendance fell 30% following the terrorist attack, January 2002 SCI Convention (personal communication with SCI).

It also fails to give any consideration to the fact that the largest operators in Tanzania were adopting better practices in response to the emphasis on an age-based approach by Safari Club International and Conservation Force before Packer was on the scene. Safari Club International, Shikar Safari Club and Conservation Force were promoting an age-based approach to all trophy hunting in general and lion hunting in particular (including an analysis of lion teeth for aging) before the Whitman/Packer article and resultant 5-6 year approach.

Packer has been rather unhappy with the progress in the adoption of the age-based approach in lion trophy selection and the number of field mistakes, but there can be no doubt of the positive trend and the resources put into research by the tourist hunting to scientifically age lion that commenced before Packer arrived on the scene and which continues to this day.

The largest and most responsible operators were the first to implement the age-based approach to lion hunting and thus their offtake has fallen the most (which Packer misconstrues), hence the offtake in Tanzania in 2012 was less than 50 in total.

In Zambia, Packer ignored the repeated peer review advice of Dr. Paula White that his assumed decline in lion trophy exports was due to closure of all hunting by the President of Zambia following a dispute over concession allocations, thus not a sharp decline in hunter success as he represents it to have been. Packer also did not incorporate the fact that Zambia quotas have been reduced as well.

In Botswana, Packer disregarded the peer review advice of Debbie Peake that his assumed crash was not lion hunting related at all. It was a complete closure at the dictate of then Vice President Ian Kama. Even before that, Ian Kama had attempted to close all wild cat hunting and was persuaded by Doug Crowe (USF&WS), an advisory consultant on assignment from USF&WS, to permit nominal lion hunting limited to one lion per year per hunting concession, 30 per year country-wide (personal communication with Dr. Doug Crowe). The apparent decline Craig Packer assumed to be causally related to a short-term population crash due to over-hunting was due to other causes, unrelated closure and reduction in quotas. The lion offtake in Botswana before its complete closure had only been zero to one per concession since the middle 1990s.

Regardless of past hunting practices, tourist hunting does not and can't endanger or threaten the lion today. It never did because of the robust fecundity of lion and adaptive management. The safari community has adopted and is implementing the 6 year age approach. See Dallas Safari Club's definition of an *ideal huntable male lion*, as well as the Conservation Force publications attached.

The trend is the adoption of a graduated penalty approach, i.e. lion 5-6 are lawful, the harvest of a lion less than 5 reduces the quota by one the next season, 4 or less years of age, several penalties as well as prohibition of export.

Today the tourist hunting community is a true partner in lion conservation with the wildlife authorities and the lion scientific community.

Disease or Predation

Lion do suffer with canine distemper virus (CDV), feline immunodeficiency virus (FIV) and bovine tuberculosis (bTB) but not to the point of being "threatened" or "endangered."

The worst instance of CDV we know of was in the Serengeti where more than one thousand lion (30%) died of the disease in the mid-1990s. That population started recovering on its own and within two years the population had recovered and in a few years more than doubled. That population is now greater than the original number and secured from the disease by a program to immunize the village canines surrounding the park. The high fecundity of the lion reduces the impact of such events. The incidences have proven the resilience of the lion.

Lion are renowned for their response to FIV (feline AIDS) as is the ordinary housecat. Lion and other cats have been extensively studied in the hope that something can be learned about HIV to enhance human survival of the disease. Some alarmist lion scientists in Botswana were claiming that FIV was threatening the lion but the ALWG disagreed (see attached *ALWG Fact Sheet*) and the alarmist scientists later admitted at the Southern/Eastern African Lion Strategy Workshop that the Botswana pride must have been poisoned because they had all died together at the same time and place. The lion experts of the African Lion Working Group (ALWG) have issued a public statement that FIV does not threaten the lion. See attached.

Bovine tuberculosis has proven not to be a real threat any more that it is with other species. The lion population with the worst instance of the disease is that of Kruger National Park in RSA. The population has remained stable for more than 30 years (Ferreira and Funston, 2010, pg. 195; Funston, recent communication to ALWG). Conservation Force has done extensive work on the population status of lion in Kruger, which is in fact stable.

There are enough wholly separate LCUs (or strongholds) that disease in one does not affect the others. The number of LCUs ensures the resilience of lion to catastrophic disease.

Adult lions run no risk of predators, *Social Factors in Lion Reproduction*, pg. 479, attached. Like the FWS, we will comment on infanticide under *Other Factors*, below. Infanticide is not as common as assumed, is compensatory, and any possible causal relationship to tourist safari hunting has largely been eliminated by adoption of the age-based approach and reduction in tourist hunting quotas.

Existing Regulatory Mechanisms

The survival of the lion is largely a matter of local tolerance and local programs, not international trade barriers. It is important that the FWS take into account the sustainable use/tourist safari hunting practices of the range countries that are a core component of habitat preservation, the maintenance of the prey base, generation of management revenue and local incentives so very important to the perpetuation of the lion. See the attached regional and national action plans and status reviews.

The lion's Appendix II listing on CITES is certainly adequate to control lawful trade in any form. This is particularly true of lawful tourist hunting trophy trade (see attached) as well as medicinal trade, what little there is. The lion has been proposed for Appendix I (Kenya) and has been considered for review in the Significant Trade Review Process for Appendix II species. It is

currently undergoing a Periodic Review of its listing status. Contrary to the views of the petitioners, CITES is the most appropriate tool for the control of lawful trade.

The respective African range states have also demonstrated an uncommon conservation focus on the lion over the past decade. Only the elephant surpasses the lion in the status reviews and in national action planning. See attached two separate Regional Lion Conservation Strategies published in 2006: one for West and Central Africa and one for Eastern and Southern Africa (available at http://www.catsg.org/catsgportal/bulletin-board/20_bulletin-board/home/index_en.html). Sustainable use (regulated hunting) is a cardinal tool of large cat conservation. See the treatment of the sub-Sahara African leopard by the FWS in its 1982 downlisting. The final leopard rule and an analysis is attached. See attached national status reviews and action plans for Tanzania, Mozambique, Malawi, Ethiopia, Kenya, Zimbabwe, Zambia, Benin, C.A.R., Cameroon, Burkina Faso, etc.

Infanticide

Infanticide appears to be common and natural and not a threat to the survival of the lion. We do not believe it is as common as assumed. A desk study review by Conservation Force, not yet completed, uncovered research where limited infanticide occurred in 4 of 7 pride takeovers. It has no impact on the survival of the prides and little impact on total productivity because of the low cub survival anyway.

“This is not a large scale slaughter, and it is difficult to determine how commonly it occurs.” B. C. R. Bertram, pg. 478, attached.

“[M]others keep their cubs in a circle and form stable maternity groups that are effective in defending the cubs against infanticidal males.” *Why Lions Form Groups: Food is Not Enough*, C. Packer, D. Scheel, A. E. Pusey, *American Naturalist*, Vol. 136, Issue 1 (July, 1990, pg. 17).

“Although it is recognized that the hunting (tourist safari hunting) of older males may increase infanticide rates, this has not been shown in field studies, with lion populations breeding at similar rates in harvested and non-harvested populations.” Republic of Namibia response to Kenya Appendix I proposal, attached, pg. viii.

There is even less infanticide when the pride male is removed in other than a takeover circumstance. Prides can go some time without a new pride male after the pride male is removed by a safari hunt. The pride can go a substantial period without a male in such instances, during which period the cubs continue to grow. “Adult females with cubs tend to avoid new males....,” pg. 478. Few professional hunters have ever witnessed either cub killing or a reduction in cub numbers after harvesting a pride lion. See representative email from Robin Hurt (50 years), attached. The harm to the species from infanticide “is secondary; it is also in fact slight, because in spite of high cub mortality (of cubs from all causes), most prides usually rear more than enough young females to replace themselves, the surplus being expelled and therefore becoming non-reproductive.” *Social factors influencing reproduction in wild*

lions, Brian C.R. Bertram, pg. 480. Most male cubs “die anyway,” pg. 480. Regardless, the contemporary “age based approach” to selective safari hunting eliminates the impact alleged by petitioners.

Taking Into Account

The ESA mandates that the conservation program and practices of foreign nations be taken into account in the listing process, 16 USC 1533(b)(A)(a)(1). It also encourages “international cooperation,” 16 USC 1537 and 16 USC 1531(a)(5). The Regional Action Plans of IUCN, the national action plans of most range states and most local action plans (see SAVE and Buby Conservancy management plans), all attached, include sustainable use/tourist safari hunting as a principle means of conserving the African lion. An “endangered” listing would obstruct those plans, strategies and actions within the range states.

Congress also (has) recognized that in some cases trade might enhance the propagation or survival of species as evidenced by the statutory language contained in paragraph 10(a)(1)(A) of the ESA.

Friends of Animals, et al. v. Ken Salazar, 626 F. Supp. 2nd 102, June 2009

Other Human-Induced Factors

The survival of the lion is largely (most habitat and prey base) dependent upon tourist safari hunting and budget revenue and incentives. Its survival is dependent upon sustainable use. Who are the petitioners to dispute sustainable use and obstruct range nation programs? Who are they to wreck the plans of the IUCN and management authorities? The petition should be denied.

Comment Period

We must respectfully disagree with the mere 60-day comment period given in the notice and the shorter actual notice given to the range nations by mail. The notice to the lion range nations was less than 60 days required by the ESA. It was dated 6 December and postmarked 27 December. We have asked for the time to be extended without success. Moreover, the results of the CITES *Periodic Review* of African lion is expected next month (February 2013) which in itself may warrant a reopening of the comment period.

We also note that your response letter states that any proposed rule will also provide another 60-day notice period. Please note that a proposed ESA rule requires 90 days notice, not 60, to the public and expressly to the affected foreign nations, 16 USC 1533(b)(5)(7).

Respectfully submitted,

A handwritten signature in black ink, reading "John J. Jackson III". The signature is written in a cursive style with a large initial "J" and a stylized "III" at the end.

John J. Jackson, III
Conservation Force
3240 S. I-10 Service Rd. W.
Suite 200
Metairie, LA 70001-6911
Tel: 504-837-1233
Fax: 504-837-1145
Email: jjw-no@att.net