

Conservation Force's Supplemental Comment on ESA status review of African lion, 77 FR 70727, Nov. 27, 2012 (Docket FWS-R9-ES-2012-0025; 450 0030115)

This is a supplemental comment following the African Lion Workshop of June 26, 2013. It includes materials that could not be presented within the 15-minute presentation time allotted at the workshop and other important information relevant to the status review.

I'll be sending the exhibits (41 total) and index to the exhibits as attachments in this and subsequent emails until they're all sent. The total file size of all the exhibits is ~38MB, so I need to split them up into separate emails in order to get them to you. We'll also be sending a CD-R by postal mail with everything included.

Conservation Force's Workshop Presentation

Conservation Force's presentation was focused on the secure and growing habitat and prey base of the lion in its Eastern-Southern Africa region/range. This in turn exists because of the statutory and regulatory support and strategic planning. A great deal has been done in Africa to secure its rich biodiversity that benefits the lion that cannot and should not be easily dismissed. The land planning and conservation strategy in Africa has been guided by the two pillars of conservation, both protection and sustainable use. An unwarranted and unwanted (by range countries) "endangered" listing of the lion would undermine Africa's conservation strategy for all wildlife and biodiversity as well as the developing survival program and practices for the lion. It would be heartless disregard for all that has been done in Africa to save Africa's habitat and wildlife and *Panthera leo*. Moreover, lion conservation efforts have really been stepped up over the past decade. That commenced with the Chardonnet and Bauer studies, the formation of the African Lion Working Group (ALWG), Kenya's CITES proposal and the Regional Planning Workshops and Technical Sessions.

Summary of Conservation Force's Workshop Presentation

Conservation Force's presentation highlighted the recognized "strongholds" for lion in its principle range, Eastern and Southern Africa (we view those regions as one single range that contains 74% (77% IUCN Assessment) of the lion habitat and 90% of the lion population of Africa). The "stronghold" populations are thought to be potentially viable for a hundred years or more as well as to have been stable or increasing for past decades. ("In East and Southern Africa many large lion populations have been stable over the last 3 decades." H. Bauer and S. Van Der Merwe, 2004, attached; and "comparison suggests that the number lions in African protected areas has remained stable or possibly increased over time." IUCN Assessment.) Most lion in Eastern and Southern Africa are in those strongholds and the characteristics of those strongholds carefully selected by the lion conservation community mimics much of the Five Factors of the listing criteria (particularly adequate **habitat** and range; smart, sustainable **utilization**; statutory and **regulatory** encouragement, wildlife management governance, strategic action planning and land planning). The lion strongholds and potential strongholds

don't exist by accident. They arise from decades of fundamental management and land planning, sustainable use and protective practices across Africa.

In addition to the strongholds that secure the lion throughout its eastern/southern range, there are other promising developments and examples of lion population growth, potential growth and improving habitat picture because of (1) new national parks (like Limpopo National Park, 2002, and the successful reintroduction of lion in Pilanesberg Game Reserve, mid-1990s), (2) enormous private conservancies such as Buby Valley Conservancy and SAVE Valley Conservancy, where lion had previously been extirpated, (3) enormous communal conservancies such as in Namibia and (4) hundreds of millions of acres of Peace Parks and Greater Conservation Areas initiated at the highest levels of government. The presentation was just a sampling of growth areas. For just one example, Craig Packer cites that Serengeti lions "have steadily increased over the past half-century." In his own presentation he said that after a disease outbreak reduced the Serengeti population, it "more than doubled in a few years" - demonstrating the high fecundity of lion. We also did not delve into the improved management interest, action planning, multiple status reviews and declared policies adopted to maintain lion at 2006 levels. Lion management today is far superior to what it was a decade ago.

Peace Parks, Tri-National Parks and Greater Conservation Areas, TFCAs

The *Peace Parks...* slide listed ten Tri-National Conservation Areas that have developed and evolved since the mid-1990s (nine have signed Presidential level agreements). They are designed to connect the "strongholds." They vary in size from the smallest (#10: Liuwa Plains - Mussuma [904,405 acres] - and the only one below 1 million acres) to one-hundred nine million acres (#8: Kavango Zambezi [109, 714,789 acres]) which is larger than all the U.S. National Wildlife Refuges combined. "TFCAs are considered the latest institutional innovation of the 21st century," Christine Noe - in publication.

It may be noteworthy that the FWS cited the promising Tri-National Park between Kruger in South Africa and Limpopo Valley in Mozambique in its denial of the petition to list African elephant as "endangered."

A. Present or Threatened Destruction, Modification or Curtailment of its Habitat or Range....

Southern Africa....

....Negotiations are ongoing with South Africa to establish a large common national park that will include Kruger and a comparable area in the Limpopo Valley in Mozambique....The future of elephants outside parks and reserves and the key to enlarging protected areas lies in allowing local communities to utilize elephants or share in revenues from the harvest of elephants.

Retention of Threatened Status for the Continental Population of the African Elephant, 57 FR 35473 at pg.12, 1992, attached (Exhibit 39). That has since been achieved and was the focus of one of the charts in Conservation Force's presentation.

What could not be included in the short presentation was the attached chapter by Dr. John Hanks and W. Myburgh entitled *The Evolution and Progression of Transfrontier Conservation Areas in the Southern African Development Community*. In publication. The original Peace Parks concept arose within IUCN. Since that time, "the countries of the Southern African Development Community (SADC) (15 countries) ... (have) one of the best networks in the world." (IUCN & UNEP-WCMC 2012). "As of May 31, 2013, SADC had 18 existing and potential TFCAs in various stages of development." See figure 9.1, attached.

The "underlying objective" has been refined by PPF (Peace Parks Foundation) as follows:

To jointly manage and/or develop a single ecological system that extends across an international border in order to improve livelihoods of rural communities that live within or adjacent to these areas and to promote the conservation of biodiversity through sustainable utilization of the natural resources.

It goes without saying that an ESA endangered listing of the lion is in conflict with improving local livelihoods and with promotion of biodiversity through "sustainable utilization." Of course, recent efforts have indicated that wildlife management and the acceptance of wildlife as a legitimate **land use** are enhanced when local residents share in revenue and responsibilities. See *Retention of Threatened Status for the Continental Population of the African Elephant*, Exhibit 39, page 11.

In addition to the joint management and corridor benefits of the Peace Parks strategy for existing protected areas, "at least 12 million hectares of *new land* has been designated for conservation." Also, the "TFCAs directly address the vulnerability of fragmented and isolated habitat islands, particularly when they bring together protected areas that are separated by communal lands or commercial farmland." There are too many spin-off benefits to list here, but in the words of Dr. John Hanks, "the future looks encouraging." (See chapter attached, Exhibit 3.)

One part of the trend to expand conservation areas not presented is the proposed "Heritage Park" at Madikwe which aims to create a conservation corridor connection between Madikwe and Pilanesberg Game Reserve, and eventually across the border into Botswana. This includes Pilanesberg National Park of RSA (lion reintroduced in 1990s), Madikwe Game Reserve (began 1991) and The Pilanesberg Corridor connecting the two. The Corridor increases the area to 250,000 hectares. Both parks have been fully enclosed by a 2.3 meter high electrified game fence which is being realigned as the Corridor grows. *The Evolution and Innovation in Wildlife Conservation: Parks and Game Ranches to Transfrontier Conservation Areas*, Chapter 18, attached (Exhibit 5).

There was no time in the workshop presentation to note that the IUCN has set up a Global Transboundary Conservation Network (GTCN) that was launched at the 5th IUCN World Parks Congress. That is facilitated by the IUCN's Transboundary Conservation Specialist Group. The

IUCN, WWF and other major NGOs as well as World Bank and GEF have been supporting the developments from the inception. See attached descriptive IUCN webpage.

The 15 member countries of SADC have taken the lead in formal designation of TFCAs (Hanks). The World Bank has supported TFCAs since 1996 (Hanks). More than three billion Rand had been mobilized within SADC as of May 2013 (Hanks). Moreover, Conservation Force and the leadership of other lion interest groups have initiated an effort to better coordinate lion conservation with the Peace Parks Foundation.

So much more can be said about the evolving Peace Parks' land planning and securing of habitat. For example, Addo Elephant National Park (AENP) has been identified to be a "mega-biodiversity conservation area." It too is supported by World Bank. Its planning includes 372,000 hectares of terrestrial land (excluding islands). The baseline target area habitat is expressly intended for large herbivores and predators. The expansion plans will make the AENP the third largest conservation area in RSA after the Kgalagodi Transfrontier Park and Kruger National Park. It too has a sustainable use component that would be compromised by the endangered ESA listing of the lion. Smart utilization is not just key to lion conservation, it is key to land use planning and tolerance of local wildlife and incentives to share land with lions. *The Evolution and Innovation in Wildlife Conservation: Parks and Game Ranches to Transfrontier Conservation Areas*, Chapter 19, attached (Exhibit 5). Also see www.peaceparks.org.

Namibia's Communal Conservancy Success

Dr. John Hanks states this about the communal conservancies in Namibia:

The pioneering work of Namibia's NGO Integrated Rural Development and Nature Conservation (IRDNC) has led to one of the most progressive policy environments for community-based natural resource management in southern Africa, with local communities getting significant benefits from the use of wildlife resources.

Attached.

The IUCN SSC Guiding Principles on Trophy Hunting as a Tool for Creating Conservation Incentives (August 2012) cites the Namibian communal conservancies as its first Case Study.

Namibia's Communal Conservancy programme is widely viewed as a conservation and rural development success story, and trophy hunting plays a central role in this success....Today there are 71 registered communal conservancies covering 14.98 million ha (with another 20 conservancies under development) and include around 240,000 members. Current communal conservancies alone means that 18.2% of Namibia's land surface is under conservation management....From 1995, the population of lion in this area has increased from an est. 20 to an est. 130, with exponential range expansion. Game populations (prey) have been re-established in conservancies....Trophy hunting has been a central driver of this transformation...with 41 conservancies hosting 40 trophy hunting concessions during 2011...a

total of 97,948 km2 have been opened to trophy hunting concessions under community management...funds generated from wildlife use are used by conservancies to employ community game guards and implement game management and monitoring systems, allowing communities to proactively counter poaching threats and mitigate increasing incidents of human/wildlife conflict.

Attached in full, Exhibit #1.

This CBNRM approach is based on legal rights provided to communities that form conservancies and is supported by WWF's LIFE - Living In a Finite Environment (now LIFE Plus project). It is based upon the Nature Conservation Ordinance Amendment Act of 1996. This is an example of increasing lion habitat, prey base and statutory and regulatory measures to form, govern and encourage communal conservancies while the longer-running recovery of plains game in Northwest Namibia cheetah and leopard (NASCO 2010)..... Chris Weaver, attached. This is a successful model to be followed.

That said, there is wide agreement that those conservancies would be faring better if cheetah and black-faced impala were not listed as "endangered." The same for lion. ("most conservancies...would not have been viable without the hunting revenues..."; "the viability of the communal conservancies would be jeopardized if it were not possible to...(trade)...lion...."; "Removal of these animals from trade would have seriously affected conservancy operational incomes and benefit streams...." Weaver, attached.) Ditto the black rhino until the recent enhancement permit. The same impasse would apply to the lion if listed as "endangered." The statutory and regulatory-based CBNRM strategy is leading to promising benefits for the lion, but an endangered listing would not.

Strongholds/LCU I

Philippe Chardonnet recognized "strongholds" in *Conservation of the African Lion: Contribution to a Status Survey*, 2002 (attached to Conservation Force's first comment and cited to page in the FWS Workshop). The three-day long "Technical Sessions" that immediately preceded the Regional Lion Workshops (West and Central/Eastern and Southern) were for the purpose of identifying the three status classes of lion (I, II, III) of Lion Conservation Units (LCUs) including Category I LCUs. These Technical Sessions were co-hosted by the IUCN Cat Specialist Group and WCS and attended by a large number of lion experts from across the respective regions. The identification of LCUs followed the WCS status model on the jaguar (attached) including Category I LCUs which were defined as populations found to be potentially viable for 100 years or more. (Undersigned was a participant in both the three-day Technical Sessions and the three-day Regional Planning Workshops that followed.) (Also see the attached confirmation of definition by Luke Hunter, then with WCS, and the jaguar model and LCU definitions in the jaguar model that was utilized, pg. 60 of *Planning to save a species: the jaguar as a model* .) "Lion experts participating in the technical sessions...assessed viability limiting factors and threats," *Regional Conservation Strategy*, pg.17.

In the Duke Study/Riggio, et al. (2012), the methodology to analyze the status and viability of lion differed from both Chardonnet and the IUCN/WCS Technical Sessions, yet its 10 "strongholds" and other "potential strongholds" agreed and confirmed the findings of Chardonnet (contributions from more than 50 lion scientists), the IUCN/WCS Technical Session (30 to 40 lion specialists in each) and the Duke Study. The ten strongholds/Category I LCUs have existed and have been stable or increasing for more than a decade (Chardonnet 2002 to Duke/Riggio 2012).

The Category I LCUs/strongholds are fortified by inclusion of protected areas spanning enormous national parks to gazetted wildlife management hunting areas. The Peace Parks Transfrontier Conservation Area development also was not directly considered in any of the three (Chardonnet, IUCN/WCS LCUs, and Duke University) but the greater conservation areas overlap, expand, connect and fortify the "strongholds."

Fencing

Fencing is controversial. It seems counter to longstanding conservation ethics and policies. It is contrary to those Transfrontier Conservation Areas (TFCAs) created to harmonize management of protected areas that are in close proximity. Some TFCAs aim to bring the borders and fences down to re-establish ecosystem connectivity.

Recently fencing has been suggested to be a magic formula by Craig Packer in *Conserving large carnivores: dollars and fence* which promoted fencing to maintain reserve populations at "density capacity." Otherwise, "nearly half the unfenced lion populations **may** decline to near extinction over the next 20-40 years." Abstract - emphasis added. This deterministic population projection in the Abstract "contradicts their Figure 3 which shows more than 50% of unfenced populations remaining above the criterion for 75 years." S. Creel, et al., attached. In fact, unfenced reserves have successfully conserved many more lion than fenced reserves and have done so at less costs ("more cost effective"), S. Creel, et al., attached. As conservation areas expand in size, it becomes more impractical. It is also very much out of scale to compare reserves with enormous national parks and Greater Conservation Areas. It is also unsound to equate maximizing density with population health and survival.

Fencing was not directly considered when determining the status of lion in (1) the Chardonnet, (2) IUCN/WCS or (3) Duke/Riggio study. Nevertheless, fences do exist within and/or include a small part of strongholds and potential strongholds. It was erroneous for Packer to represent Kruger as fenced. Kruger is only fenced on its RSA side, but not fenced on its long Mozambique side. That fence was removed purposely to facilitate wildlife migration and dispersal towards the newer Limpopo National Park (established 2002). That fence's removal expanded habitat for both lion and prey. Etosha National Park in Namibia is fenced but hundreds of lion escape. The private Buby Valley Conservancy has an exterior fence and SAVE Valley Conservancy exterior is partially fenced. Fencing is a useful tool that may further strongholds, but the Category I LCUs/strongholds were determined independent of that consideration. Fenced Etosha is only designated a "potential stronghold," and Buby and SAVE are not included in the

stronghold determination. Nevertheless, they are both part of the growing reach of the Greater Limpopo Conservation Area. The fact is, most areas that qualify as strongholds/Category I LCUs are not fenced and qualify without fencing. For example, according to Packer, "Serengeti lions have steadily increased over the past half century," which, of course, is not fenced. Ditto Niassa and Selous Reserves.

Undersigned appears to have recently been misinformed about some of Peace Parks' outer fencing plans. To the contrary, and as I originally understood, the PPF policy has been to remove fences much like private owners in conservancies remove internal fences for co-management. Fencing varies from area to area and is part of the planning in some instances, but not in others, as appropriate. Most fences are veterinary fences that obstruct the flow of wildlife to protect livestock from wildlife diseases.

It appears that fencing, particularly in select locales, may be re-evaluated by Peace Parks. See Dr. John Hanks' attached article on Peace Parks fencing, *Good Fences Good Neighbors*, Exhibit 11.

Packer's flawed, deterministic population projections have been wholly refuted in *Conserving large populations of lions - the argument for fencing has holes*, S. Creel and 54 other co-authors. *Ecology Letters*, attached. Fencing is not desirable, much less necessary to maintain lion at full density capacity.

Some Texas ranchers are convinced that you can't have deer without fencing, but, of course, that is not true. Fencing may be desirable to maximize density, not for survival. In the USA, grizzly bear, wolves, black bear and Florida panther are being re-established and downlisted without the fencing of Yellowstone National Park or the Everglades. Any supposition that some "strongholds" will fail the lion unless they are fenced is contrary to the facts and experience, particularly considering the immense size of the core areas, prey base, buffer zones, Peace Parks' efforts and action planning. All "strongholds" have stable or increasing lion populations and none of the "strongholds" have been enclosed by fence as suggested. Kruger has been misrepresented to be fenced when it is not. Etosha, Bubyne and SAVE (partial fence) are fenced, but they are not standalone "strongholds" because the lion populations of each are short of 500 (although Conservation Force thinks they should be treated as "strongholds" because of their connection with lion habitat beyond their fences). Most if not all "strongholds" exist without fences and have for decades. Those populations are stable or increasing and are expected to be for the next 100 years.

Lion Status in Botswana

Not included in the presentation for lack of time is the up-to-date summary of the Botswana countrywide lion population estimates and trends. It is attached in full in color along with explanatory email correspondence. In short, the overall population estimate is greater than in 2003 and the numbers exceed all prior estimates. The 2003 estimate was 2,933 and 2012 is 3,374. We will not repeat all the data herein since it is attached (Exhibit 14). The report to

Conservation Force includes lion and prey numbers and trend and habitat. The CV of the reputable scientist who prepared the report is also attached.

IGF Mapping for Tanzania, Mozambique and Zambia

The International Foundation for the Conservation of Wildlife of Paris (Executive Director Philippe Chardonnet of *Chardonnet Study*, 2002) prepared the attached maps and charts depicting the number, size and kind of protected areas in the land use planning of the three countries. This includes the hunting areas. It is followed by a chart of lion range countries designating the amount of habitat protected areas that are hunting-based and the relative percentage of lion habitat in each respective country. It must be viewed in color. Lion are significantly dependent upon safari hunting lands for survival. But for those areas, there would be far less habitat for lion. Of course, the safari hunting industry generates direct revenue for the regulating and managing of wildlife departments as well. A simple examination of the maps clearly demonstrates the magnitude of lion habitat in the respective countries provided and protected through gazetted, regulated hunting areas. Licensed/regulated tourist hunting has been providing lion a large part of its habitat for many decades under the long-existing statutory conservation strategy for most lion in Africa.

The safari hunting of lion is a cardinal and integral part of range countries' land planning and conservation programs for lion, prey for lion, habitat for all and essential operating revenue for the department. This is clearly reflected in the Regional Strategic Action Plans and National Action Plans. Wildlife Department funding is also a crucial need across all of Africa. All the fees, taxes and licensing are essential to the management and law enforcement infrastructure. In recent decades, that statutory and regulatory strategy includes a percentage of revenue to local communities and mandated community conservation projects by the hunting operators in Tanzania as well as other countries.

The IUCN Red List Assessment states:

Trophy hunting is carried out in a number of sub-Saharan African countries and is considered an important management tool for providing financial resource for Lion conservation for both governments and local communities....

See also news article about Tanzania's increasing community-run Wildlife Management Areas, attached (Exhibit 7) and from Director Alexander N. Songorwa, Exhibit 41.

Private Land Conservancies in Zimbabwe

The presentation demonstrated two enormous Zimbabwe private conservancies that have restored extirpated lion, Buby Valley Conservancy (2,730 km²/674,600 acres) and SAVE Valley Conservancy (3,440 km²/850,043 acres). Both have lion management plans developed by lion specialists and have resident staff biologists. These are true, legally constituted conservancies in which dozens of private landowners sign a legal instrument to co-manage and take down

internal fencing. Wildlife is then grown or reintroduced or both, as in the case of the extirpated lion. Neither have been recognized as standalone "strongholds" in the Duke/Riggio Study, but both are fully within the Greater Limpopo Transfrontier Conservation Area. The *Conservation Strategy and Action Plan for Lion in Zimbabwe, 2006* (attached to our first comment and select pages attached hereto) includes a plan to "Incorporate strategy with TFCA (Transfrontier Conservation Area) Conservation Committee workplans....Target 7.4, *Implement lion conservation strategy and management plan*. Also 4.4.7. Attached.

Both make it clear that they restored their lion but will not be able to maintain them without the U.S. safari hunting market if the lion is listed as endangered. See the two reports of Dr. Rosemary Groom. One is dated January 27, 2013 and the other really is a comment in opposition to the petition to list as endangered. We have previously furnished the lion management plan for SAVE prepared by Dr. Paul Funston, which Conservation Force largely funded.

The Buby Valley Conservancy is 3,440 km². Its lion population has increased since the estimate displayed at the FWS Lion Workshop. It has increased to 370 to 420 lions, Exhibits 21 and 22. Buby is fenced, so there is a greater need to control the lion population as an ordinary husbandry practice and to maintain the other animals upon which the lion prey.

Aging Approach in Zimbabwe - Utilization

Zimbabwe has just held a meeting to update its Lion Action Plan of 2006 and more (July 2013). It too has adopted "age-based trophy restrictions and monitoring that will feed into adaptive quota allocation." Conservation Force is furnishing Panthera two of our aging guidance publications for the Zimbabwe training sessions for "ecologists, professional hunters and operators...." See attached email correspondence with Paul Funston of Panthera (Exhibits 30 and 31).

We do not think licensed, regulated tourist safari hunting of lion today is a population level threat. Although at one time lion were treated as vermin as a matter of public policy, today they are "game animals" under some form of protection and management wherever they are hunted in Eastern and Southern Africa. The historic treatment of lion should not be confused with its management, planning and policy governing its utilization today.

Though Conservation Force has been the unquestioned leader in promoting the experimental 5-6 year approach, the practicality of its field application is still under intense review and experimentation. An example is in Tanzania where the hunting take this past season was only 50 lion. Also see Niassa Report, 2012 where lion offtake is only 23.8% of the low quota (5 taken out of quota of 21 per annum). No lion below four years of age was taken in Niassa (Exhibit 27). Also see news release on CIC adopting age-based approach worldwide, Exhibit 29. Safari hunting utilization is not excessive anywhere at this time. As a matter of scale, offtake today has been greatly reduced and quotas and methodology are adaptively managed. Range countries should be allowed the freedom to experiment with different quota and restriction

methods under their individual management regimes, as long as the lion has game animal/trophy animal status.

Today, any excessive quota is short-lived. The principle range states have action plans, staff predator coordinators and management committees. These are all developments over the past eight years (since 2006). The safari hunting industry has been the primary contributor to all the action plans and improved management. It is deserving of reward, not retribution.

While on Zimbabwe, it would be remiss not to recognize that "[a]n additional 20 percent of the surface area of Zimbabwe has become dedicated to wildlife management since 1980 because of the Communal Area Management Programme for Indigenous Resources (CAMPFIRE)...." *Retention of Threatened Status for the Continental Population of the African Elephant*, 57 FR 35473, pg.12, 1992 (Exhibit 39).

Niassa Positive Trend

The Niassa Reserve is one of the "strongholds" for lion. Its population of lion has increased. That population is now estimated to be 1,071 (951-1,191). The 2012 survey calling status technique matches the 2005 and 2008 surveys. The increase in lion numbers may be due to increased elephant carcass remains from poaching, but is nonetheless an increase. Ultimately, the prey base in the giant reserve and surrounding buffer areas should increase as well. It has great potential. The project reports applying an age-based approach to safari hunting and full cooperation with no lion being taken in 2012 below four years of age. Only five lion, less than one quarter of the low quota, were taken in 2012 under the age-based approach adopted by the Reserve years ago. See attached *Niassa Carnivore Project, Annual Report, 2012* (Exhibit 27). Also see www.niassalion.org. Also attached is the lion aging guide prepared by Panthera that is utilized in Niassa (Exhibit 28).

Kenya May Be Improving

See communication of Laurence Frank that "Right now...(he is)...more optimistic about Kenya than ever before." He feels that the 2006 estimate of 1,900 to 2,000 lion is being toppled and "we will soon have a better data-based sense of Kenya's overall lion populations." There appears to be more lion than thought. Exhibits 33 and 34.

Action Plans in West & Central Africa

Conservation Force believes that the West and Central Africa regions are distinct but **not** significant ranges of the African lion, whether treated together or apart. When combined, they hold only 10% of the total lion population and 26% of African lion habitat. That has been true for four or more decades. Perhaps West Africa is the worst of the two, but it still has areas that show promise. One such area is the 20,000 km² Transfrontier WAP Complex. See the *Population status of carnivores in Pendjari Biosphere Reserve, Benin, 2001-2002*, attached (Exhibit 38).

This complex in West Africa should not be ignored. It exists as a result of protection (parks) and strategic management (gazetted Hunting Areas) which are part of the protection system. It is noteworthy in that it is part of a developing Transfrontier Park Conservation Area with even greater potential. The estimated population was 46-137 adults/sub-adults in PBR in 2002 and 54-171 in 2012. An "endangered" listing would handicap the described lion conservation restoration, but a "threatened" listing would not. These areas can be considered models and the lion population is described as "robust." The extraordinary density of these wild lion (0.97-2.9 per 100 km²) is because of the abundant prey base, particularly roan.

Both Benin in the West Africa region and Cameroon in Central Africa have completed national lion action planning workshops and have new draft action plans in 2013. In the case of Cameroon, it is the second action plan since the West & Central Africa Regional Plan was completed in 2006. Both new plans are reported to be in draft form so we have only attached their covers and indexes to honor the request that they not be circulated and, of course, this comment is available to the broader public. The point is, like the IUCN Regional Plan (2006), these two 2013 draft plans include sustainable use/trophy trade as a cardinal part of the conservation strategy of the lion. Those action plans, regional and national, include landscape/habitat decisions, laws and regulations. The strategies are intended to enhance acceptance and management of lion on lands in and surrounding parks and Hunting Areas.

Genetics

We have included two exhibits related to genetics, Exhibits 35 and 36.

Conclusion

This comment is in behalf of Conservation Force, 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 and Professional Hunters Association of South Africa.

Thank you for consideration of this additional status information. We respectfully urge you to remember that today lion management is far superior to what existed in 2002 and the range nations have declared management policies to maintain lion at their 2006 levels.

Sincerely,

A handwritten signature in black ink, appearing to read "John J. Jackson III". The signature is fluid and cursive, with a stylized "J" and "I".

John J. Jackson, III
Conservation Force

Conservation Force Supplemental Lion Comment – INDEX OF ATTACHMENTS

1. *IUCN SSC Guiding Principles on Trophy Hunting as a Tool for Creating Conservation Incentives*; IUCN/SSC Antelope Specialist Group *Gnusletter* (Volume 31, Number 1, May 2013) pgs. 24-28, **including case study of Namibia's CBNRM**
2. *The catalytic role and contributions of sustainable wildlife use to the Namibia CBNRM Programme* (Chris Weaver, et al.); from *CITES and CBNRM*, 2011
3. *The evolution and progression of Transfrontier Conservation Areas in the Southern African Development Community* (John Hanks and Werner Myburgh); from *Conservation, Development and Tourism in Eastern and Southern Africa: a Dynamic Perspective* (2013), in publication
4. Biography of Dr. John Hanks from www.1485.org.za
5. *The Evolution and Innovation in Wildlife Conservation: Parks and Game Ranches to Transfrontier Conservation Areas* (multiple parts and chapters)
6. Select pages of *Conservation Strategy and Action Plan for the Lion in Zimbabwe*; pgs. Cover, 16, 17, 19; related to Transfrontier Conservation Area collaboration
7. *Tanzanian Government Vows to Win War Against Poaching* (February 7, 2013); re: additional WMAs being gazetted
8. *Inventory of free-ranging lions Panthera leo in Africa* (H. Bauer and S. Van Der Merwe); from *Oryx* Vol. 38, No. 1, January 2004 (Eastern and Southern Africa stable over the last three decades)
9. *Conserving large populations of lions – the argument for fences has holes* (S. Creel, et al. – 45 co-authors); from *Ecology Letters* (2013)
10. *Conserving large carnivores: dollars and fence* (C. Packer, et al.); from *Ecology Letters* (2013) 16: 635–641
11. *Good Fences Good Neighbors* (John Hanks); from *Africa Geographic* (May 2013) pg.8
12. Email from Executive Director of Peace Parks Foundation, Werner Myburgh, on fencing
13. *Planning to save a species: the jaguar as a model* (Sanderson, E. W., et al.) from *Conservation Biology* (2002) 16(1):58-72; model used for Lion Conservation Units (LCUs); particularly page 60 on 100-year viability

14. *2012 Summary of Lion Population Estimates and Trends in Botswana* (C. W. Winterbach; June, 2013)

15. *2012 Summary of Lion Population Estimates and Trends in Botswana* - explanatory documents (C. W. Winterbach)

16. CV of C. W. Winterbach

17. IGF maps and charts of protected lion habitat dependent upon hunting in Tanzania, Zambia and Mozambique; also Chart on *Lion Presence* and related explanatory email correspondence (Pascal Mesochina, 2013) [must be viewed in color]

18. *Lion Hunting in Zimbabwe's Save Valley Conservancy* (Dr. Rosemary Groom) January 27, 2013

19. Maps and charts including SAVE Conservancy prepared by Dr. Paul Funston, Senior Lion Program Director of Panthera

20. Biography of Dr. Paul Funston from www.panthera.org

21. *Bubye Valley Conservancy – A Case Study of African Lion on a Private Hunting Conservancy* (Paul Trethowan)

22. Paul Trethowan email on increasing population trend in Bubye Valley Conservancy with unrelated portion removed at request until published

23. *RSA Lion Map Outlines 1* from Susan Miller.

24. *RSA Lion Map Outlines 2* from Susan Miller.

25. *RSA Lion Reserves or Wild Lion* from Susan Miller.

26. Two Namibian charts on expanding lion range and explanation by Chris Weaver, WWF

27. *Niassa Carnivore Project, Annual Report, 2012*; www.niassalion.org; positive lion trend in stronghold

28. *Quick Guide to Lions of Niassa Reserve* (Niassa Lion Project): Lion aging guide used in Niassa Reserve

29. Broadcasting of Dallas Safari Club, CIC and others adopting the 6-year old aging approach

30. Paul Funston email on recent Panthera workshop in Zimbabwe in July 2013 and tentative adoption of aging approach in Zambia

31. Email with Paul Funston, re: Conservation Force's *Lion Aging Guide* to be used in Zimbabwe.
32. Email from Philipp Henschel that Benin had lion action planning workshop in December 2012 and is adopting five years of age lion regulation
33. Email of Dr. Laurence Frank on the improving status of Kenya lion
34. Biography of Dr. Laurence Frank
35. *Genetic perspectives on "Lion Conservation Units" in Eastern and Southern Africa* (J. M. Dubach, et al., 2013)
36. *Is India's Pride Actually African?*; from *SCIENCE*, vol. 340, June 14, 2013
37. New 2013 Western-Central Africa Lion Action Plans and explanatory email from Hans de longh; note: only covers and indexes attached as requested by Hans because of draft status
38. *Population status of carnivores in Pendjari Biosphere Reserve, Benin, in 2001-2002* (I. Silvestre and H. Bauer); from *CATnews* 58, Spring 2013
39. *Retention of Threatened Status for the Continental Population of the African Elephant*, 57 FR 35473 at pg.12, 1992
40. IUCN Transboundary Protected Area Specialist Group website
41. *Saving Lions by Killing Them* (Alexander N. Songorwa) from *The New York Times*, March 17, 2013