

**BEFORE THE SECRETARY OF THE INTERIOR
PETITION TO LIST
THE AFRICAN LION (*Panthera leo leo*)
AS ENDANGERED PURSUANT TO THE U.S. ENDANGERED
SPECIES ACT**



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THE HUMANE SOCIETY
OF THE UNITED STATES



Petition to List the African Lion as Endangered

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i. NOTICE OF PETITION

Pursuant to Section 4(b) of the Endangered Species Act (“ESA”), 16 U.S.C. § 1533(b), Section 553(e) of the Administrative Procedure Act, 5 U.S.C. § 553(e), and 50 C.F.R. § 424.14(a), petitioners; The International Fund for Animal Welfare, The Humane Society of the United States and Humane Society International, The Born Free Foundation/Born Free USA, Defenders of Wildlife, and The Fund for Animals hereby Petition the Secretary of the Interior to list the African lion (*Panthera leo leo*) as Endangered.¹ 16 U.S.C. § 1532(6), (16) (“The term ‘endangered species’ means any species which is in danger of extinction throughout all or a significant portion of its range . . .”; “The term ‘species’ includes any subspecies of fish or wildlife . . .”).

This Petition “presents substantial scientific [and] commercial information indicating that” the African lion subspecies is in danger of extinction throughout all or a significant portion of its range. *See* 50 C.F.R. § 424.14(b)(1) (“substantial information” is “that amount of information that would lead a reasonable person to believe that the measure proposed in the Petition may be warranted”). Therefore, the Secretary of the Interior must make an initial finding “that the petitioned action *may be* warranted.” 16 U.S.C. § 1533(b)(3)(A)(emphasis added) (The Secretary of the Interior must make this initial finding “[t]o the maximum extent practicable, within 90 days after receiving the Petition”). Petitioners are confident that a status review of the subspecies, as required by 16 U.S.C. § 1533(b)(3)(B), will support a finding that listing the African lion as Endangered is warranted.

The African lion has suffered major reductions in population size across the continent, and such declines are ongoing because threats to the subspecies continue unabated. The United States has the opportunity to assist in protecting the iconic African lion by listing the subspecies as Endangered. Listing of the entire subspecies as Endangered, would meaningfully contribute to African lion conservation. Such a Continent-wide listing would allow the United States to support all range countries in their efforts to protect lion habitat and eliminate threats to the subspecies. Further, because unsustainable take, and subsequent imports of lion derivatives into the United States, contribute to endangerment throughout their range, importation of any African lion specimen deserves the level of scrutiny that an Endangered listing would provide, namely an analysis of whether the import would in fact enhance the propagation or survival of the subspecies or is for scientific purposes. The African lion has suffered major reductions in population size across the Continent, and such declines are ongoing because threats to the subspecies continue unabated. The United States has the opportunity to assist in protecting the iconic African lion by listing the subspecies as Endangered.

ii. EXECUTIVE SUMMARY

This Petition demonstrates that the African lion (*Panthera leo leo*) meets the statutory criteria for an Endangered listing under the Endangered Species Act (ESA).

¹ The Asiatic lion (*Panthera leo persica*) was listed as Endangered in 1970. 35 Fed. Reg. 8491 (June 2, 1970).

The petitioners – The International Fund for Animal Welfare, The Humane Society of the United States and Humane Society International, The Born Free Foundation/Born Free USA, Defenders of Wildlife, and The Fund for Animals – submit this Petition to the Secretary of the Interior requesting formal protection for the African lion as Endangered under the ESA. The ESA considers a species (including subspecies) to be “Endangered” when it “is in danger of extinction throughout all or a significant portion of its range.” 16 U.S.C. § 1532(6). The Act requires the Secretary to determine within 90 days of receiving the Petition whether the Petition “presents substantial scientific or commercial information indicating that the petitioned action may be warranted.” 16 U.S.C. § 1533(b)(3)(A). Such determination must be made solely on the basis of the “best scientific and commercial data available.” 16 U.S.C. § 1533(b)(1)(A). Following a positive 90-day finding, the Secretary must, within one year of receipt of the Petition, complete a review of the status of the species and publish either a proposed listing rule or a determination that such listing is not warranted. 16 U.S.C. § 1533(b)(3)(B). Should a rule be proposed, the Secretary has an additional year to finalize regulations protecting the species. 16 U.S.C. § 1533(b)(6)(A).

When a foreign species is listed as endangered, protection under the ESA occurs by, *inter alia*, prohibiting imports unless they enhance the propagation or survival of the species or are for scientific purposes. 16 U.S.C. § 1533(b)(1)(A). Furthermore, Section 8 of the ESA provides for “International Cooperation” in the conservation of foreign, listed species, and listing a foreign species heightens global awareness about the importance of conserving the species.

This Petition describes the natural history and biology of the African lion and the current status and distribution of the subspecies; it clearly shows that its population size and range are in alarming and precipitous decline. The Petition reviews the threats to the continued existence of the African lion, including retaliatory killing due to attacks on livestock, loss of habitat and prey, and disease. The Petition also demonstrates how Americans engaging in unsustainable trophy hunting and international trade of lions and lion parts are significantly and negatively impacting the conservation status of the African lion. It then explains how existing laws and regulations are inadequate to address the numerous and interacting threats to the African lion today. Lastly, the Petition demonstrates how an Endangered listing of the African lion under the ESA will result in significant benefits to the subspecies.

Status and Distribution

In 2008, the International Union for the Conservation of Nature (IUCN) classified the African lion as Vulnerable with a declining population trend, which means it is considered to be facing a high risk of extinction in the wild (Bauer et al., 2008). This classification is based on a suspected reduction in population of approximately 30 percent over the past two decades (Bauer, et al. 2008). However, African lion experts have now agreed that the population size is less than 40,000 with an estimated range of 23,000 to 39,000 (Bauer et al., 2008). The most quantitative estimate of the historic size of the African lion population resulted from a modeling exercise that predicted there were 75,800 African lions in 1980 (Ferreras & Cousins, 1996; Bauer et al., 2008). Comparing the 1980 estimate of 75,800 to the 2002 estimate of 39,000 lions yields a suspected decline of 48.5 percent over 22 years. Additionally, since 2002, several studied African lion populations are known to have declined or disappeared altogether (Henschel, et al., 2010).

The African lion now occupies less than an estimated 4,500,000 km², which is only 22 percent of the subspecies’ historic distribution (Bauer et al., 2008). The latest research suggests

the African lion exists in 27 countries (Bauer et al., 2008; Henschel et al., 2010), down from 30 countries in 2008, just 3 years ago (Bauer et al., 2008), illustrating that the status of the African lion continues to deteriorate.

Populations of African lions that are both viable and exist in largely protected areas, occur in only about 5 percent of their currently occupied range and 1.1 percent of their historical continent-wide range. Thus, African lions are endangered both across a significant portion (approximately 95 percent) of their current range and across a significant portion (approximately 99 percent) of their historical range.

Threatened Destruction, Modification, Curtailment of Habitat or Range

Loss of habitat and corresponding loss of prey are serious threats to the survival of the African lion (Ray et al., 2005). These threats are principally driven by human activity, including conversion of lion habitat for agriculture and grazing as well as human settlement (Ray et al., 2005). Human population growth has been specifically identified as the root cause of many problems associated with the conservation of lions because of increasing human settlement in lion habitat and associated agriculture and livestock production (IUCN, 2006a). It is therefore of concern that the human population of sub-Saharan Africa, which was 518 million in 1990, is predicted to rise to 1.75 billion people by 2050 (UN DESA, 2008).

Other related threats to African lion habitat and prey include the bushmeat trade, civil unrest and desertification. The expanding human population has resulted in increased consumption of bushmeat which has severely reduced some lion prey species, causing conflict between lions and humans competing for the same resources (Parliamentary Office of Science and Technology, 2005; IUCN, 2006b). Civil unrest within sub-Saharan Africa degrades otherwise suitable lion habitat through the overharvesting of wildlife and vegetation (Dudley et al., 2002). Lastly, land degradation through desertification is predicted to lead to the loss of two-thirds of arable land in Africa by 2025 (Bied-Charreton, 2008), which will further increase competition between humans and lions.

Overutilization for Commercial, Recreational, or Scientific Purposes

The African lion is clearly over-utilized. The original analysis presented in this Petition shows that between 1999 and 2008, 21,914 African lion specimens (lions, dead or alive, and their parts and derivatives), reported as being from a wild source, being the equivalent of at least 7,445 lions, were traded internationally for all purposes. Of this trade, the United States 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 (54 percent of the total). The most common purposes of this international trade were scientific, recreational and commercial.

Between 1999 and 2008, 7,090 lion specimens, reported as being from a wild source, were traded internationally for recreational trophy hunting purposes, representing a minimum of 5,663 lions. Most of these specimens were imported to the United States: 4,139 specimens (58 percent of the total), representing a minimum of 3,600 lions (64 percent of the total). Despite the significant and continuing population and range declines that this subspecies has suffered and continues to suffer, the number of lion trophies, reported as being from a wild source and traded for hunting trophy purposes, imported to the United States, is increasing. Of these trophies, the

number imported into the United States in 2008 was larger than any other year in the decade studied and more than twice the number in 1999.

From 1999 to 2008, 2,715 lion specimens, reported as being from a wild source, the equivalent of at least 1,043 lions, were traded internationally for commercial purposes (defined as “for the purpose of sale in the importing country.”) Of this trade, the United States imported 1,700 lion specimens (63 percent of the total), the equivalent of at least 362 lions (35 percent of the total). The most common lion specimens traded for commercial purposes were claws, trophies, skins, live animals, skulls and bodies.

The aforementioned international trade figures include lion specimens reported as being from a wild source that were exported from South Africa. From 1999 to 2008, South Africa reported exporting a number of specimens equivalent to 2,862 wild-source lions. Since the estimated number of wild lions in South Africa in 2002 ranges between 2,716 and 3,852 it seems highly unlikely that the aforementioned 2,862 South African lions involved were all wild source. Therefore, the South Africa trade data specifically must be treated with caution.

Twenty African range States exported lions and lion parts reported as being wild-source between 1999 and 2008. A country-by-country examination of the number of lions exported and reported as being from a wild source, and the status of the wild population in each country reveals that off-take was unsustainable in at least sixteen of these twenty range States. Specifically, the United States imported lion specimens from twelve range States where the reported data indicate that the off-take was unsustainable. Therefore, even setting aside the South African data, clearly the lion is overexploited for these purposes across sub-Saharan Africa.

In addition to the direct killing of the targeted individual, trophy hunting can have further population impacts. For example, when males that are part of a pride are killed, all the pride’s cubs less than nine months of age will be killed by new dominant males (Whitman et al., 2004). Listing the African lion as Endangered under the ESA would end imports of commercial and recreational lion trophies and all lion specimens into the United States, unless they are found to enhance the survival or propagation of the species or are for scientific purposes. 16 U.S.C. § 1533(b)(1)(A). Lions are also killed for purposes that do not involve legal international trade. However, there are no comprehensive data on the levels or impact of these activities.

Disease or Predation

Diseases such as canine distemper virus (CDV), feline immunodeficiency virus and bovine tuberculosis are viewed by experts as a threat to the African lion (Roelke et al., 2009; Cleaveland, 2007). Human population growth and expansion is exposing lions to new diseases to which they may have little or no immunity (IUCN SSC Cat Specialist Group, 2006). For example, during the past two decades, diseases normally associated with domesticated dogs, such as CDV, have affected lion populations (Woodroffe et al., 2004).

Inadequacy of Existing Regulatory Mechanisms

The African lion is listed on Appendix II of the Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES), which means that export permits should not be granted unless the export is determined not to be detrimental to the survival of the species in the wild. Nonetheless, this petition demonstrates that lion specimens are routinely exported from countries across their range where lion off-take is detrimental to the survival of the

subspecies. This means that the United States regularly allows imports of lion specimens accompanied by export permits issued by countries where lion off-take is unsustainable. This is a clear indication that CITES, as currently implemented, is inadequate to protect the African lion from unsustainable international trade.

The country that imports the most wild-source African lion specimens—the United States—has no meaningful protective measures for the subspecies, despite the evidence that imports are having a detrimental impact. An Endangered listing under the ESA would ensure that lion specimens could only be imported to the United States if the import enhances the survival or propagation of the species or is for scientific purposes.

Conservation of the African lion could be potentially affected by several other international and African regional agreements, as well United States laws, but none of these adequately protect the subspecies from ongoing and rapid decline in population and range. Moreover, few range States appear to have adequate national regulatory mechanisms, or effective measures to implement and enforce such mechanisms should they exist, to address these declines. In summary, the threats to lions in Africa are exacerbated by insufficient regulatory mechanisms throughout their range (IUCN, 2006a; IUCN, 2006b).

Other Natural or Manmade Factors Affecting the Survival of African Lions in the Wild

The African lion is threatened by retaliatory killings, often associated with loss of prey, ritual killings, and compromised population viability due to increasingly small and isolated populations. Retaliatory killing, in particular, is a serious threat to the survival of the African lion (Chardonnet et al., 2010) and occurs in all major range States (Frank et. al, 2006). When the African lion's prey is reduced by human or natural means, lions increasingly prey on domestic livestock (Chardonnet et al., 2010). Livestock predation is the main source of conflict between people and lions and can induce extreme human retaliation (Chardonnet et al., 2010). African lions are easily killed for retaliatory purposes by various means, but they are particularly vulnerable to poisons because of their scavenging nature (Hoare & Williamson, 2001; Ogotu and Dublin, 2002; Baldus, 2004).

Conclusion

This Petition demonstrates that the African lion meets the criteria for listing as Endangered under the ESA. The best scientific and commercial data available demonstrate that the population and range of the African lion have significantly decreased, and continue to decrease, and that the African lion is in danger of extinction throughout “all or a significant portion of its range” (16 U.S.C. § 1532(6)). The African lion faces serious threats due to over-exploitation by recreational trophy hunting and commercial trade, loss of habitat and prey species, retaliatory killings, disease and other human-caused and natural factors. The subspecies is not adequately protected by existing regulatory measures at national, regional or international levels. Listing the African lion as Endangered under the ESA would be a meaningful step toward reversing the decline of the subspecies by ensuring that the United States does not allow the importation of lions or lion parts unless it is to enhance the propagation or survival of the species or is for scientific purposes, and by raising global awareness about the alarming and increasingly precarious status of the African lion.