Lions in the modern arena of CITES

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Abstract
Lions have often been discussed under the Convention on International Trade in Endangered Species of wild flora and fauna (CITES). While CITES decisions on species trade regimes are ostensibly based on science, species data are often inconclusive and political considerations inevitably determine outcomes. We present the context of lion conservation and the technical and political processes of CITES to illuminate how a failed uplisting proposal nonetheless resulted in an unprecedented trade restriction as well as conservation initiatives beyond the CITES trade function. We conclude on the limitations of science to guide future directions of CITES debates, leaving politics and ethics to shape decision making.

KEYWORDS
Africa, conference of parties, convention, international, lion bone, trade

1 | INTRODUCTION

The lion (Panthera leo) is listed as Vulnerable in the IUCN Red List of Threatened Species (Bauer, Packer, Funston, Henschel, & Nowell, 2015b); the regional population of West Africa as Critically Endangered (Henschel et al., 2014) and the sole remaining population outside Africa, in India, is listed as Endangered (Breitenmoser, Mallon, Ahmad Khan, & Driscoll, 2008). Severe reductions in range and numbers have been reported (Bauer et al., 2015a), and many authors have argued for increased conservation investments for this species (Lindsey, Balme, Funston, Henschel, & Hunter, 2016; Packer et al., 2013a). There is growing political engagement in lion conservation, through national and international policy instruments (Trouwborst et al., 2017).

Lions have also been much discussed under the Convention on International Trade in Endangered Species of wild flora and fauna (CITES). CITES categorizes species in three appendices by the level of protection afforded from international trade. Species in Appendix I are threatened with extinction and no commercial international trade is permitted for wild specimens. Species in Appendix II are not necessarily threatened with extinction but may become so unless trade is regulated; commercial international trade is permitted at the discretion of the exporting Party, which must determine scientifically that such trade will not be detrimental to the species’ survival and issue a permit for each shipment. Populations may be “split-listed” as is the case with lions; since 1977 African populations fall under the family-wide Appendix II listing for all Felidae not listed in Appendix I, where the lion population in India is included.

At the 13th Conference of Parties (CoP 13) in 2004, Kenya proposed an uplisting of all lion populations in Africa from Appendix II to Appendix I [CoP 13 Prop. 6], and nine African countries led by Niger again proposed the same uplisting at CoP 17 in 2016 [CoP17 Prop. 4]. Neither proposal ever made it to the floor for voting; instead they were replaced by alternatives emerging from processes of negotiation that are bound by the intricacies of CITES. Based on our own and our colleagues’ experiences at CITES meetings but duly observing confidentiality, we show how the outcome can be understood in the context of CITES jurisprudence and its intersections with science, stakeholders, diplomacy, and advocacy in international lion conservation.
2 | THREATS TO THE LION

Threats to lions are well documented; the top three are not trade-related: prey depletion, habitat encroachment, and conflict over livestock depredation. Two additional threats are trade-related: trophy hunting and lion bone and parts trade, but their impact is debatable and doubtless varies from place to place.

Trophy hunting can secure lion habitat and provide community benefits (Lindsey, 2008; Macdonald et al., 2017), but regulations are often inadequate or poorly enforced (Lindsey et al., 2013; Packer et al., 2011). Despite some detailed studies (Bauer et al., 2017; Loveridge et al., 2016; Packer et al., 2009), there are knowledge gaps regarding the consequences of trophy hunting for lion conservation, and irreconcilable differences of opinion on ethical aspects (Macdonald, Johnson, Loveridge, Burnham, & Dickman, 2016b; Macdonald et al., 2017). Ethical arguments are not part of CITES criteria, but they are part of the wider discussions on sustainable use from both perspectives (duty to protect animal life vs. duty to provide human livelihoods).

The situation is radically different for trade in parts and derivatives, which is poorly understood. Illegal under national legislation in all African range states, under the Appendix II listing international trade could have occurred legally, but it has not as indicated by an absence of records from the CITES Trade Database. Nonetheless, trafficking of lion body parts for African traditional medicine has occurred throughout the continent; the level is not possible to quantify but it may be on the rise (Williams, Loveridge, Newton, & Macdonald, 2017a, b). International trade in lion bone to Asia has emerged recently, with a legal component, involving mainly farmed South African lions, totaling over 6,000 skeletons since 2008, and an illegal component that could develop into a threat to wild populations (Williams et al., 2017a).

Williams, Newton, Loveridge, and Macdonald (2015) suggest that the rise in lion bone trade was stimulated by CITES efforts in 2007 to curtail the farming of tigers (Panthera tigris) for their bones in Asia. Lion bone has been used since 2005 as a covert substitute for tiger bone in expensive exotic wines made in China (Nowell & Xu, 2007). Demand was met with the by-product of the “canned hunting industry” in South Africa (trophy hunting of captive bred lions in confined spaces), with no evidence for supply from free-ranging populations (Williams et al., 2015). Lion bone products could threaten tigers through perpetuating demand and continuing to stimulate poaching, and could also establish a similar dynamic for lions which otherwise has no cultural history of use in Asia. The first mention of this trade called it “potentially catastrophic” (Nowell & Bauer, 2006) and many conservationists suspect that it drives increased lion poaching (ALWG, 2016), but a recent study provides little evidence as yet (Williams et al., 2017b).

South Africa is unique in that it has a captive breeding industry with an estimated 8,000 lions, used in the tourist industry for cub-petting, walking with lions, and canned hunting (Moorhouse, D’Cruze, & Macdonald, 2017). It has been criticized by elements of civil society and in an IUCN Resolution (https://portals.iucn.org/congress/motion/009), but when the government attempted to end canned lion hunting, the Supreme Court of Appeal ruled that lion farming had nothing to do with conservation and cannot be regulated by conservation authorities (https://www.justice.gov.za/sca/judgments/sca_2010/sca10-151.pdf accessed 8/9/2017). South Africa has two large and viable wild populations that are effectively protected (Limpopo ~2,000 lions and Kgalagadi ~1,100 lions), but the rest of its lions are in fenced reserves that are increasingly managed as a metapopulation (Miller & Funston, 2014; Miller, Harper, Bloomer, Hofmeyr, & Funston, 2015). Fencing, translocation, population control, and other intensive management practices are common in South Africa’s lion conservation, in striking contrast to other African countries where lion management is considerably less intensive. South Africa was also the host of CITES CoP 17 in September 2017; the proceedings were actively covered by national media and it became an event of national concern. This influenced the negotiating position of their delegation and possibly the outcome as described below.

3 | THE TECHNICAL AND POLITICAL WORKINGS OF CITES

With 183 government signatories (“Parties”), nearly every country in the world is a member of CITES, including all lion range countries except South Sudan. CITES is stronger than many other environmental conventions because it can impose restrictions (such as trade sanctions) on any Party. It is essentially a trade convention by enforceable “hard law,” but it is also recognized as an important policy instrument for wildlife conservation by affecting domestic trade and nontrade conservation issues through “soft law”—Resolutions, Decisions, and other mechanisms agreed by consensus or by two-thirds majority vote. Although CITES is legally binding on States, it is not self-executing; it can only be fully implemented when specific national (also called “domestic” in CITES parlance) measures have been adopted for that purpose. CITES is based on the principles that wildlife trade is beneficial for human well-being that trade is not detrimental to the traded resource, and that sustainable use should be the norm, unless evidence suggests otherwise. This assumption of “innocent until proven guilty” is somewhat modulated by the precautionary principle, but for the many species that are not threatened by trade, CITES is irrelevant to their conservation.

Species must meet trade and biological criteria for listing on CITES Appendix I; the trade criterion is that the species
“is or may be affected by trade.” The biological criteria are partly aligned with the IUCN Red List Criteria for Endangered; they use very similar thresholds [Resolution Conf. 9.24 (Rev. CoP17)], but they do not reflect IUCN’s elaborate, structured, and transparent guidance on how to use data deficiency, uncertainty, the precautionary principle, and projections of future declines. These can be used in CITES proposals, and Parties are free to interpret such arguments as they see fit “in the best interests of the conservation of the species” either for or against trade. IUCN and TRAFFIC refer only to CITES criteria in the scientific evaluation of every proposal that they publish before every CoP [e.g., CoP17 inf. 11].

One of the Appendix I biological criteria is a documented decline of more than 50% over three generations; however, that figure is only indicative and listing remains a political decision and is not automatic. CITES biological criteria do allow for the listing of species in the absence of reliable documentation of a decline of this magnitude, but the fact that lion decline was inferred at 43% (Bauer et al., 2015b) made the decision-making process less technical and more political; Parties had to evaluate additional arguments.

While it was important to map the technicalities that brought us here, we now turn to a more political analysis of stakeholders to understand how things unfolded.

4 Stakeholders’ Roles at the CITES COP

At CoPs, Party delegations sit in the front of the large meeting space from which observers are excluded. Observers are arrayed behind the Parties and can ask to speak (time permitting); they are sometimes included at the discretion of the session Chair when forming working groups where most of the negotiations take place. However, while separate in appearance, in practice, observers wield considerable influence at CITES. Some States have large delegations of seasoned diplomats supported by experts and trainees; others have only a few civil servants led by a Director of Wildlife. Most delegations have voting instructions on topics of interest to their State; their freedom to maneuver is limited and depends on their ability to communicate with decision makers back home. For other topics, they follow their own judgment, partly relying on other Parties and observers to inform them.

Among the observers, there is a similar diversity; most have strong opinions and lobby Parties to adopt their views. Activities start long before the CoP when lobbyists work in countries where they have a vested interest to influence national position statements and voting instructions, but it reaches frenzy at the CoP. Their advocacy is sometimes directly aimed at Party delegates, but more often indirectly by addressing their constituencies through events, reports, and media.

Many NGOs imply to the public that wildlife trade is generally bad; sometimes they mix their communication about CITES with issues tangential to international trade, e.g., animal welfare, poaching, pollution, or domestic trade. User groups (e.g., associations involved in trade, hunting, or medicinal use) also use CITES for their agendas to promote trade, arguing that trade restrictions distort market forces that give monetary value to species that in turn can be used to support their conservation. However, this “kill to save” message is complex and less easily communicated through mass media. In the CITES context, it is not uncommon for organizations to draft interventions or ghost-write documents submitted by Parties; documents submitted by governments are not given individual authorship, and government authorities with limited resources and many other duties often rely upon civil society to assist them with the many burdens placed upon them by the Convention.

On the users’ end of the lion stakeholder spectrum, two industries participate in CITES debates: the trophy hunting industry (led by organizations such as Safari Club International and professional hunters’ associations) and the South African lion breeding and canned hunting industry (led by the South African Predator Association). This creates a strong alliance between these organizations and States where trophy hunting is part of their economies and wildlife conservation management regimes (including South Africa and Tanzania, among others).

Many animal welfare organizations oppose lion trophy hunting on ethical grounds (e.g., Humane Society International and the Campaign Against Canned Hunting) and have developed close relationships with some States that prohibit lion trophy hunting (including Kenya and Botswana). They are aware that ethical arguments do not carry weight in CITES and their technical support to States is focused on biological and trade information (Brels, 2017).

Some conservation organizations take a neutral position, assisting policymakers to make science-based decisions (to the degree that is possible in the absence of conclusive data). In the CITES context, IUCN and TRAFFIC are the leaders of this group; together they produce analyses of proposals to change trade rules for species, as well as many other reports and contributions. The work of these organizations is perhaps most relied upon by the major Western governments, among others the United States and European Union. The United States and EU have tended to play a mediating role in CITES lion debates, but individually each has taken stricter measures on lion trade than they have argued for at CITES.

Arguments from interest groups are couched in scientific terms but use differences in data sets and methodologies to reach opposite conclusions. Rebuttals in scientific literature proposing alternative views based on similar data are common and include polemics around lion management (Creel et al., 2013; Packer et al., 2013a, b). The data on lion declines
Also, wild-caught trophy-hunted species at CITES: Two Uplisting Proposals for One Annotation

At CoP 13, in 2004, Kenya proposed an uplisting of all African lion populations to Appendix I; proponents knew it would face strong opposition from Parties with significant lion trophy hunting but probably hoped to find middle ground. Behind the scenes, Range States and major stakeholders negotiated alternatives that Kenya presented in its withdrawal statement [CoP13 Com. I. Rep. 13 (Rev. 1)]. It consisted of agreement on a process of Lion Conservation Strategy formulation to reverse or at least halt lion declines, later published as IUCN (2006a) and IUCN (2006b) and on a Periodic Review; a long process that never reached a full conclusion before being made redundant by the decisions at CoP 17.

After 2004, there was initial optimism, but over time it became clear that the conservation strategies were not adequately implemented, that the Periodic Review was not coming to conclusion and that lion populations continued to decline. Where subsequent IUCN Red List assessments had been slightly modified versions of a Vulnerable categorization in 2008, the 2015 reassessment was a fresh look based on new methodology and presenting substantial new evidence of declines (Bauer et al., 2015b). Finally, the killing of “Cecil” created important momentum to review lion status (Macdonald, Jacobsen, Burnham, Johnson, & Loveridge, 2016a; Nelson, Bruskotter, Vucetich, & Chapron 2016). The momentum and the new evidence prompted a coalition of Range States to submit a new proposal to transfer all African lion populations to Appendix I for CoP 17. Although Kenya supported the proposal, it was felt that other perhaps less polarizing countries should take the lead and so Niger, together with Chad, Côte d’Ivoire, Gabon, Guinea, Mali, Mauritania, Nigeria, and Togo submitted [CoP17 Prop. 4].

The proposed uplisting would not have affected captive lion bone exports, as Appendix I species bred in captivity for commercial purposes are treated under CITES as belonging to Appendix II. Also, wild-caught trophy-hunted specimens could still be exported since such trade is considered noncommercial. However, the major trophy exporting States and their allies in the hunting industry felt strongly that uplisting would lead to curtailment of lion trophy hunting. Parties have in the past restricted trophy exports through quotas for Appendix I species (e.g., leopard, Panthera pardus), and there was a distinct possibility domestic legislation of some Parties would trigger similar lion trophy import restrictions. Parties may enact “stricter domestic measures” for CITES-listed species at any time, and in the 2 years prior to CoP17 the major importers in Europe and the United States had banned trophy imports from West and Central African countries and tightened conditions for allowable imports from East and Southern African countries, and the United States banned imports of lion trophies from captive origin completely.

Before CoP 17, both the United States and the EU had published their negotiating positions. The United States supported the proposal [https://www.fws.gov/international/pdf/CoP17-Final%20Notice-WEB-tentative-US-positions_9-23_16.pdf accessed January 9, 2017]; the EU opposed but was supportive of split-listing, transferring lion populations of West and Central Africa to Appendix I [https://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/1-2016-437-EN-F1-1-ANNEX-2.PDF accessed January 9, 2017]. The EU delegation was bound by this European Council decision to vote
against the proposal, but within that stricture free to find compromises. Knowing that the criteria were met only under certain interpretations, and knowing that a block with 28 votes did not support the proposal, most informed participants anticipated that a compromise would be negotiated. Indeed, at the CoP the uplisting proposal was only briefly discussed in plenary and then referred to a working group consisting of proponent countries, other Range States, major trophy importing States and NGO observers, a typical process for high-profile proposals. Since the original proposal did not emphasize the potential link to Asian big cats, the working group did not include key actors in tiger conservation or in lion bone trade.

The working group found limited support among Parties for uplisting and rejected split-listing as too unwieldy. The group looked for other protection instruments under the current Appendix II listing, and with a great deal of unofficial input from NGO observers came up with a consensus approach comprising two components. The first was a set of Decisions intended to stimulate various conservation initiatives, including initiatives unrelated to trade such as surveys and conflict mitigation, all of which had been previously discussed at a Range State meeting convened by the Convention on Migratory Species in Uganda (https://www.cms.int/sites/default/files/document/African_Lions_Meeting_Communique_E.pdf accessed September 8, 2017). The second was an annotation to prohibit commercial trade in African lion parts and derivatives, such as would have been accomplished under an uplisting. Initial discussion favored a zero quota for all lion parts, wild and captive-bred, but this was unacceptable to South Africa, which argued that there is no evidence yet for an impact of trade in bones of captive origin on wild populations. There may have been sufficient support for the annotation to pass if put to a vote, but for a variety of political reasons, and in pursuit of consensus, the annotation was revised to a zero quota for lion parts and derivatives (except skins) of wild origin for commercial purposes, and a quota to be set by South Africa and communicated to the CITES Secretariat for bones, bone pieces, bone products, claws, skeletons, skulls, and teeth for commercial purposes sourced from its captive lions. South Africa set that quota about a year later at 800 skeletons (https://www.environment.gov.za/mediarelease/lionexportquota_communicatedtocitessecretariat accessed September 8, 2017), which roughly corresponds to the number of hunting trophies from captive origin and therefore suggests implicitly that lions would not be purposely bred for their bones. It is noteworthy that no other Range State sought to retain an option on future quotas, presumably indicating that none has any intention to start a captive lion industry.

Because of the potential threat it poses to wild lions, South Africa’s quota allowance is the controversial element in an otherwise broadly supported compromise to curtail trade through Appendix II annotation instead of a less politically palatable Appendix I uplisting. Also, the annotation permitting trade in commercially farmed lion bone is inconsistent with CITES language on tiger farming: “Parties with intensive operations breeding tigers on a commercial scale shall implement measures to restrict the captive population to a level supportive only to conserving wild tigers; tigers should not be bred for trade in their parts and derivatives.” Although the tiger is listed in Appendix I and the African lion in Appendix II, the intermingling of the two trades suggests a similar and consistent approach under CITES is warranted. The negotiators at CoP17 dealing with the lion listing were aware of this inconsistency, but in the absence of published evidence of a negative impact on trade in captive lion bones on wild lions, the compromise was considered the most viable option at the time.

In parallel, lion trophy hunting was the subject of an EU proposal on “harvest and export of hunting trophies” [CoP17 Doc. 39.1 Annex 4] that was also sent to the lion working group. It emerged much weaker, in the form of studies and capacity building among the subsidiary conservation initiatives. Separately, a Resolution was adopted on “Trade in hunting trophies of species listed in Appendices I and II” which sets out general guidelines for exporting Parties to improve sustainable management of trophy hunting [Resolution Conf. 17.9].

On the last day of CoP17, in the final plenary session, the Decisions drafted by the working group were adopted without further debate [Dec. 17.241-17.245]. The annotation is historic in two ways: it is the first successful attempt to revise a felid listing under CITES since listing guidance was adopted in 1994, and it is the first to restrict trade in captive-bred specimens.

6 | CONCLUSION

Lions are back where they were two millennia ago: centre stage of the arena, where the crowd tries to influence the decision of the modern senators to turn their thumb up or down to trophy hunting or bone trading venatores. Intriguingly, for observers of conservation realpolitik, the debate about lion conservation began with a momentum that focused on regional differences and trophy hunting, but then veered toward a consensus impacting commercial trade with unknown, perhaps perverse, consequences on lion conservation. Ironically, while intended to move away from elephant trophy hunting politics, the lion is now in a position where its bones have become an ivory-like asset potentially leading to more elephant analogy and deadlock (Biggs et al., 2017). However, lion stakeholders have demonstrated the capacity to compromise and reach consensus that Biggs et al. (2017)

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2 Species are included in Appendix III unilaterally by countries to establish national export restrictions; Appendix III is not discussed in this article.

3 The taxonomy of the Felidae has recently been revised by IUCN, whereby the Asian lion was clustered with the lion in North (extinct), West, and Central Africa into P. leo leo; if this revision is accepted by CITES, then this listing can be changed from a taxonomic to a geographic designation (i.e., P. leo leo populations in Asia); CITES has mechanisms to deal with such technicalities.

4 Plenary sessions are public, but working groups are not and as participants we can only describe the outcome, without giving detail on process or quoting other participants.

5 Covert meaning that consumers are given the impression that lion ingredients are tiger ingredients—tiger use in traditional medicine has a long history but has been prohibited by the Chinese government since 1993.

6 At CoP17, the IUCN delegation made a statement (“intervention”) that included the following: “Parties have never provided any clear guidance on how to implement a precautionary approach in the application of the CITES listing criteria; nor have they given guidance on how to handle information of uncertain quality” and “IUCN and TRAFFIC have never considered it appropriate to apply our own views on risk tolerance or precaution when carrying out the Analyses” (D. Challenger, pers. comm.).

7 Some species with declines below threshold are uplisted without Parties devoting their scarce resources to assiduous review of the science, but even high-trade high-profile species with known declines of around 40% have been uplisted; the Vulnerable African pangolin species were uplisted along with the (Critically) Endangered Asian species, even without going through a working group and with thresholds only implicitly and lookalike issues only briefly discussed in plenary (see [Resolution Conf. 17.10]).

8 One example is that several Appendix I alligator and crocodile species are bred commercially for the skin trade.

9 U.S. policy is possibly in flux with current decisions “on hold” as per presidential tweet of November 17, 2017 (https://twitter.com/realdonaldtrump/status/931685146415255552?lang=en accessed January 9, 2018), but this pertains to the inclusion of certain countries on the list of countries where trophy hunting enhances the survival of the species and from where trophy imports are therefore allowed. It is unclear if this will ultimately affect lion policy as set out in the Endangered Species Act listing (https://www.fws.gov/endangered/what-we-do/pdfs/Lion_FL_FAQs_Final.pdf accessed January 9, 2018).

10 CITES guidance states that split-listing should be avoided due to the enforcement problems it creates [Resolution Conf. 9.24 [rev. CoP17].

11 Although not a proponent, South Africa was defeated on elephant and rhino proposals it supported; Parties may have been reluctant to risk a repeat performance and may also have wished to avoid a plenary debate that could have undone the entire compromise. Finally, South Africa is widely admired for its domestic conservation achievements, and in the absence of compelling evidence of negative conservation impacts, Parties may have judged it impolitic to issue such a direct rebuke to the venue host.

12 Such is the heat and pace of negotiations that even working group participants were not able to subsequently clarify why an exception was made to allow commercial trade in wild and captive lion skins.

13 The impacts of the U.S. import ban on the South African lion breeding industry are not yet clear but it seems unlikely that lion bone supply will be disrupted. Captive lion trophy imports to the EU continue as under its policy they could only be curtailed.
If wild lions were being fraudulently laundered as captive-bred (http://www.europarl.europa.eu/sides/getAllAnswers.do?reference=E-2017-001247&language=EN accessed January 9, 2018).

14 That subset of gladiators, who fought animals not people.

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