



"Embracing Innovation to Conserve the World's Animal Kingdom."

Minister Barbara Creecy
Minister of Environment, Forestry and Fisheries
c/o Ms Malepo Phoshoko
Department of Environmental Affairs
Republic of South Africa
Environment House
473 Steve Biko Road
Pretoria
0002
South Africa

5 June 2019

Dear Ms Malepo Phoshoko,

2019 export quota for trade in the bones, bone pieces, bone products, claws, skeletons, skulls and teeth of lion for commercial purposes, which have been derived from captive breeding operations in South Africa

It is understood that in accordance with sections 61 and 62 of the National Environmental Management: Biodiversity Act (Act No. 10 of 2004) NEMBA, the Scientific Authority (the South African National Biodiversity Institute (SANBI)) is required to advise the Minister of the Department of Environmental Affairs on the 2019 export quota for trade in the bones, bone pieces, bone products, claws, skeletons, skulls and teeth of lion for commercial purposes, which have been derived from captive breeding operations in South Africa.

Members of the public have been invited to submit "*concise written scientific information*" for consideration by the Scientific Authority in this matter.

Please find International Wildlife Bond's (IWB's) submission for consideration by the SANBI here within (submitted by e-mail to MSPhoshoko@environment.gov.za).

Yours sincerely,

Stephen Alan Wiggins

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Submission to the consultation “2019 export quota for trade in the bones, bone pieces, bone products, claws, skeletons, skulls and teeth of lion for commercial purposes, which have been derived from captive breeding operations in South Africa”

Table of Contents

1	Introduction	3
2	Does the lion bone trade serve any scientific purpose?	4
2.1	Report 1 - “ <i>Bones of Contention: An assessment of South African trade in African lion bone and other body parts</i> ”	4
2.2	Report 2 – “ <i>Southern Africa wildlife trade - An analysis of CITES trade in South African Development Community (SADC) countries</i> ”	6
2.3	Report 3 - “ <i>South African Lion Bone Trade – Report for the South African National Biodiversity Institute (SANBI)</i> ”	7
2.4	Have the DEA’s past lion bone trade quotas been based upon recognisable science?	8
2.5	Conclusions - Does the lion bone trade serve any scientific purpose?	9
3	Does the lion bone trade provide any scientific basis to suggest it promotes conservation of the African lion species?	10
3.1	The South African Predator Association (SAPA) and Captive Lion Breeding	10
3.2	Conclusion - Does the lion bone trade provide any scientific basis to suggest it promotes conservation of the African lion species?	11
4	The African lion species is under threat, but does the lion bone trade increase, or decrease that threat within South Africa and/or on a continent-wide basis?	12
4.1	Conclusions - The African lion species is under threat, but does the lion bone trade increase, or decrease that threat within South Africa and/or on a continent-wide basis?	14
5	Does the lion bone trade substitute as a supply to make up for the ‘absence’ of tiger derivative products?	15
5.1	Conclusions - Does the lion bone trade substitute as a supply to make up for the ‘absence’ of tiger derivative products?	17
6	Does any element of the lion bone trade pose a potential risk to human health?	18
6.1	Conclusions – Does any element of the lion bone trade pose a potential risk to human health?	18
7	Summary and Conclusions	19



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1 Introduction

First of all, we need a working definition of 'science' so one can determine relevant "*scientific information*" for consideration within the referenced consultation:

"Science is the pursuit and application of knowledge and understanding of the natural and social world following a systematic methodology based on evidence" - [Science Council](#)

Furthermore, 'science' is not static, but is based upon the best available evidence and should be impartial to politics, or a wedded (biased) to any theoretical dogma (such as 'sustainable utilisation') - credible 'science' is impartial.

"Speaking as a scientist, cherry picking evidence is unacceptable.....when public figures abuse scientific argument.....to justify policies that they want to implement for other reasons, it debases scientific culture" - [Stephen Hawking](#)

So, based upon the above definition of 'science' let's explore the current knowledge, understanding and evidence surrounding the "*lion bone trade*" and justification (or lack thereof) for any "*export quota*":

Where; "*lion bone trade*" means lion bones, bone pieces, bone products, skeletons and derivative products such as lion claws, skulls and teeth of lion.

Based upon a review of the best available data (the science) as detailed below, the conclusion is clearly drawn that there is no 'science' that suggests the lion bone trade provides any conservation benefits - though trade advocates cling to the self-delusion that the trade has some theoretical self-justification, the potential risk to wild lion populations the lion bone trade has started to create means the lion bone trade 'must' be perpetuated.

This self-justification appears to be motivated by self-interest in perpetuating profiteering from captive lion breeding, not some altruistic endeavour to conserve wild lion populations.

The lion bone trade and any past quotas have been driven purely by exploitation for profiteering.

Therefore, in the absence of any conservation benefits and to reduce any potential future risk to wild lion populations manifesting and escalating, the lion bone trade should be shut down with a zero quota - until such time that any proven, independent, peer-reviewed scientific evidence can support such a quota.



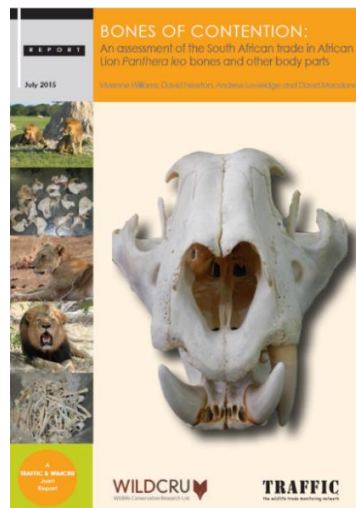
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2 Does the lion bone trade serve any scientific purpose?

In the past, the Department of Environmental Affairs (DEA) has consistently referenced two reports that it has suggested supports a lion bone trade quota:

- In the DEA’s [28 June 2017 media statement](#) – *“Lion export quota for 2017 communicated to the CITES Secretariat in line with CITES requirements”* the DEA referenced a 2015 study, *“Bones of Contention”* authored by TRAFFIC/WildCRU – *“Report 1”*
- To [questions raised \(NW750, June 2017\) by Mr P Van Dalen](#) to the Minister, DEA, the DEA referenced the 2016 study commissioned by the DEA and the South African National Biodiversity Institute (SANBI) - *“Southern Africa wildlife trade - An analysis of CITES trade in South African Development Community (SADC) countries”* – *“Report 2”*

2.1 Report 1 - *“Bones of Contention: An assessment of South African trade in African lion bone and other body parts”*



“Bones of Contention: An assessment of South African trade in African lion bone and other body parts”

This 2015 report by WildCRU/TRAFFIC is a detailed analysis of the ‘legal’ trade, the corruption and the illicit profiteering. Some key points of note:



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- a. ***“There appears to be a growing trade in Tigers and their parts and products from South Africa, and there have been calls for more transparency on the matter. An emerging concern is that Tiger bones from South Africa may be laundered as Lion bones using CITES Appendix II (instead of Appendix I) permits. Limitations in the South African legislation applying to endangered exotic animals have made it possible for an unregulated domestic trade in Tigers.”***

- b. ***“In South Africa, the trade in Lion bones currently has a negligible impact on wild Lion populations. The trade in bones appears to be a sustainable by-product of the sizeable trophy hunting industry in South Africa, and Lions that are hunted are almost exclusively captive-bred. There are few records of wild-hunting and poaching in the country, especially at a level that could supply the sizeable bone trade. **The impact of the bone trade on wild Lion populations outside of South Africa, however, has yet to be determined”*****

[Recent evidence \(August 2017\) suggest this latter threat, might be manifesting as the ‘trade’ develops.](#) In fact some countries have taken pre-emptive action to try to deter the likely onset of wild lion poaching in the wake of South Africa’s 2017 “800 skeletons” quota – [in July 2017, Namibia, introduced a N\\$1m fine/10 year jail term for possessing lion bones \(with proposals to increase this to a potential N\\$15m/15 year jail term for illegal possession of wildlife products\).](#)

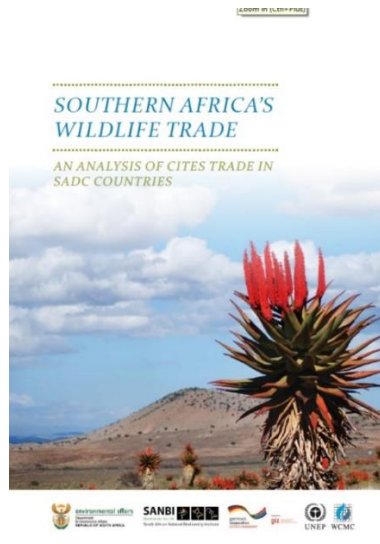
Field observations indicate that wild lions in southern Africa, specifically Mozambique, have been under increasing threat for their parts. The [Greater Limpopo Carnivore Programme](#) has recorded an escalation in the number of wild lions poached on the Mozambican side of the Great Limpopo Transfrontier Conservation Area, with a marked increase since 2015. They report that 26% of the lion population in this park has been lost due to poaching for their body parts.

These signs are a pre-cursor/warning that allowing a stand-alone lion bone trade (and/or a by-product lion bone trade from captive lion trophy hunting) to become legitimised and flourish poses a threat to the future survival of the African lion species on a continent-wide basis. Therefore, the best course of action to mitigate such a risk to wild lion populations is to curtail any form of lion bone trade.



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2.2 Report 2 – *“Southern Africa wildlife trade - An analysis of CITES trade in South African Development Community (SADC) countries”*



“Southern Africa wildlife trade - An analysis of CITES trade in South African Development Community (SADC) countries”

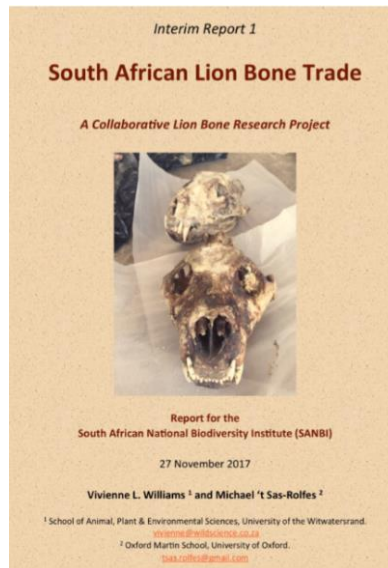
This 2016 report reads like a company report and account, of units shifted, cash-flow and profits. It does not consider the specific issue of a lion bone trade quota, or the continent-wide risks posed to wild lion populations from such a lion bone trade quota.

Therefore, this report’s relevance when the DEA has previously sought to justify a lion bone trade quota remains a mystery.



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2.3 Report 3 - “South African Lion Bone Trade – Report for the South African National Biodiversity Institute (SANBI)”



A further report, “*South African Lion Bone Trade – Report for the South African National Biodiversity Institute (SANBI)*” appeared in November 2017. This interim report is an analysis of past trade data and an analysis of lion breeders participating within that industry/trade. Again, this report does not make any specific recommendations regarding an actual lion bone trade quota, or consider the potential continent-wide implications on wild lion populations of a lion bone trade.

At paragraph 3.1 of this November 2017 report (“*Reasons for keeping and/or breeding lions, and the main purpose of the facilities*”), there was no conservation imperative of the African lion stated as a priority by any South African lion breeder.

Alarming, within the conclusions at paragraph 6.1 of this report, the authors exposed the lion breeders’ true intent and motivations to profit regardless of any legal mechanism for a lion bone trade – the majority of captive lion breeder respondents expressed a willingness to utilise illicit means to profit if a ‘legal’ mechanism is denied to them:

“The fact that a large proportion of survey respondents have stated that they will seek ‘other markets’ [if no ‘legal’ quota is available] for lion bones should be of concern.”



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This clearly signals the potential for a parallel illegal market to develop. Should such a market develop closer links with organized criminal enterprise, the effects could be irreversible (as with the rhino horn trade) and result in greater and more widespread threat of focused commercial – scale poaching of felids.”

Such illicit actions will potentially have an enduring, negative impact on the species' conservation; however such threats/blackmail from lion breeders should not be used as an excuse to authorise and condone a 'legal' quota that has no scientific merit - the rule of law should override any such illicit activity threats (or else mob rule will be allowed to prevail in the absence of law enforcement and a clear scientific foundation for a legal mechanism).

2.4 Have the DEA's past lion bone trade quotas been based upon recognisable science?

It is reported that one of the SANBI's study's key researchers seemed startled by the “1,500 lion skeleton quota” set for 2018 after the publishing of the “*South African Lion Bone Trade – Report for the South African National Biodiversity Institute (SANBI)*” – Report 3 above.

To reiterate, this report did not seek to recommend any actual lion bone trade quota, but sought to provide baseline data and research on lion breeding and its motivations within South Africa.

“The wording of that quota letter ... is a bit unclear concerning our involvement. All decisions were made by the Scientific Authority [SANBI] and DEA and we provided no input on what the quota should, or should not, be. We correctly excluded ourselves from this process, and we'll clarify that soon. Since DEA weren't obliged to keep us informed about the decision on making the quota, it might surprise you to know that I didn't hear about it until yesterday afternoon” - [“Dodgy skeleton traders and lion slaughterhouses exposed in damning report,”](#) Don Pinnock, Daily Maverick, 19 July 2018

It seems clear that the “*scientific*” reasons given by Ex Minister Molewa (DEA) for the 2018 lion skeleton quota had no grounding in any scientific reality. In response to journalist Adam Cruise's questions, Mpho Tjlane (the DEA's “*media queries contact*”) apparently responded that the lion skeleton quota had been upped for 2018:



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".....because they [the lion breeders] have surplus stockpiles of lion bones and they want to get rid of them" - "[Dodgy skeleton traders and lion slaughterhouses exposed in damning report](#)," Don Pinnock, Daily Maverick, 19 July 2018

2.5 Conclusions - Does the lion bone trade serve any scientific purpose?

It is clear that Reports 1, 2 and 3 referenced by the DEA (as given above):

1. Do not specifically consider any lion bone trade quota implementation and/or make specific recommendations on such a quota;
2. Do not specifically consider the impact of South Africa's lion bone trade on wild Lion populations outside of South Africa.

Note: Reports 1 and 2 pre-date the [CITES CoP17, Sept - Oct 2016 gathering](#) that facilitated an *"Annual export quotas for trade in bones, bone pieces, bone products, claws, skeletons, skulls and teeth for commercial purposes, derived from captive breeding operations in South Africa will be established and communicated annually to the CITES Secretariat."*

In conclusion, where is the *"science"* and claimed conservation imperative in such blatant commercial endeavours to profit from animal exploitation from any lion bone trade quota?

None of the DEA's/SANBI's referenced reports (as given above) provide any recommendations, or scientific grounding for a lion bone trade quota. To date, the lion bone trade quotas (2017/2018) that have been set by the DEA appear to have been based upon some notion of demand and/or the lion breeders' *"surplus stockpiles of lion bones"* – not any recognisable science that has a purpose beyond profiteering for profiteering's sake.



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3 Does the lion bone trade provide any scientific basis to suggest it promotes conservation of the African lion species?

A 2010 South African legal ruling (["The Supreme Court of Appeal of South Africa Judgement," Case No. 72/10, 29 November 2010](#)) declared captive lion breeding as 'farming' and of no conservation value. This legal opinion has not changed in the intervening years to the present day.

3.1 The South African Predator Association (SAPA) and Captive Lion Breeding

In a 7 March 2016 article (Note: *published by Wildboere, but no longer available on-line*) entitled "[9 Myths About Captive-bred Lions](#)," written by Professor Pieter JJS Potgieter (then President of the South African Predator Association (SAPA)), the claim was made that the captive-bred "*ranch lions*" (sic) industry is all about the industry's 'love of lions and conservation.' Note: The SAPA likes to confuse and blend 'captive' lion breeding with wildlife ranching, when no true comparison actually exists, as explained below.

In an [open letter \(dated 29 November 2017\)](#) to Secretary Zinke (then head of the United States Fish and Wildlife Service (USFWS)), the African Lion Conservation Community's posted response to the South African Predator Association's letter (pleading for the lifting of captive lion trophy hunting import restriction) made the distinction clear between wildlife ranching and the SAPA's captive breeding. The African Lion Conservation Community summarised the conservation claims of the captive breeding industry as follows:

"The [SAPA] letter appears to associate the captive lion breeding industry with the wildlife ranching industry as a single entity. While there have been conservation benefits stemming from the expansion of South Africa's wildlife ranching industry, we point out that captive lion breeding cannot claim any of the conservation successes that the wildlife ranching industry has achieved. Captive bred lions are kept in small, intensively-managed enclosures that have been cleared of most of their indigenous vegetation, thus removing the natural habitat of the area. In no way does this type of land management contribute to biodiversity conservation, or support claims of benefits for mesocarnivores and veld rehabilitation, linked with lion breeding."

Furthermore, the open letter from the African Lion Conservation Community made clear that:



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"[SAPA] claims that captive bred lions are required for reintroduction and species restoration are not based on any scientific evidence and are contradictory to the published, peer reviewed evidence of several of the world's leading lion conservationists.....South Africa, where free ranging lions have recently been down-listed from Vulnerable to Least Concern conservation status. This is due to ongoing, concerted conservation action and concerted reintroductions, all of which have no connections with the captive lion industry."

In an attempt to 'prove' that any captive raised lion (no matter its background) can indeed be rehabilitated into the wild, Professor Pieter JJS Potgieter (["9 Myths About Captive-bred Lions,"](#) 7 March 2016) cited Elsa the lioness as a key example of successful rehabilitation (one example from the 1960s duly noted).

Elsa's rehabilitation was of course the theme of the 1966 'Born Free' film and Professor Pieter JJS Potgieter stated in his article *"Elsa the lioness made the transition from pet lion to wild lion mama pretty easily."* Professor Pieter JJS Potgieter's reference to Elsa is puerile and lacks any scientific weight that might give a modicum of credibility to the captive lion breeder's otherwise unsubstantiated conservation claims.

Furthermore, according to Professor Pieter JJS Potgieter *"There are numerous cases where captive-bred lions have successfully made the transition to become wild lions. And they did it with little fuss and with little if any coaxing. Currently there are two studies of note, one on captive-bred lions in the wild in Zambia and another in the Zambezi River region."* The exact scientific citations to this purported work are sadly lacking.

3.2 Conclusion - Does the lion bone trade provide any scientific basis to suggest it promotes conservation of the African lion species?

There has been no conclusive, independent, peer-reviewed scientific evidence that any captive bred lion within South Africa has been successfully rehabilitated into the wild, and/or the captive breeding industry has positively contributed to conservation. The need for the captive lion breeding industry within South Africa to contribute to free ranging lion conservation within South Africa has also been conclusively negated by the African Lion Conservation Community.



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4 The African lion species is under threat, but does the lion bone trade increase, or decrease that threat within South Africa and/or on a continent-wide basis?

The [SAPA claims](#) that the hunting of captive bred lions presents direct conservation benefits to wild lions. This is relevant to any lion bone trade quota, because lion bones, skeletons etc. are a by-product of the captive lion trophy hunting industry as well as being obtained from the direct slaughter of captive lion stock.

The SAPA claims that if captive lion hunting is stopped, increased pressure will be placed on wild populations. Yet the SAPA provides no scientific evidence whatsoever to substantiate this claim - there is no published, peer-reviewed evidence to support this claim.

Evidence suggests the SAPA's claims are false with regard to the lion skeleton by-product that results from the captive lion trophy hunting and/or the killing of captive lions specifically for their skeletons/bones. The legal lion bone trade is acting as a catalyst for illicit trade and is starting to put pressure on wild lion populations (reference paragraph 2.1 above). More legal trade is not the cure to counter illicit trade. Legal trade is fuelling the potential escalation of illicit trade.

In a comprehensive report, "[The Extinction Business, South Africa's 'Lion' Bone Trade](#)," EMS Foundation and Ban Animal Trading, July 2018 the conclusion is:

South Africa's lion bone trade has "...created a situation where the legal trade in 'lion' bones is fuelling the illegal trade in lion and tiger bones and providing laundering opportunities for tiger bones in Asian markets."

The main conclusions that can be drawn from the "[The Extinction Business, South Africa's 'Lion' Bone Trade](#)" report are that South Africa's lion skeleton/bone trade:

- is supplying known illegal wildlife trafficking syndicates in Asia, again offering no glimmer of redemption – but instead is stimulating and perpetuating demand, thus imperilling targeted, wild species' survival – such as tiger, lion.....with the [leopard next](#). Will [South Africa](#) also try to cash in on the leopards' exploitation as well?

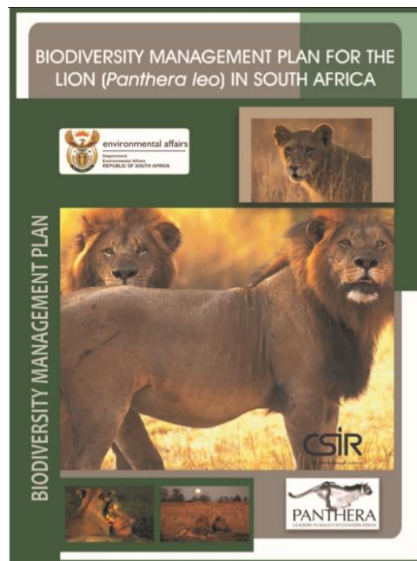


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- is not just a by-product of South Africa’s captive (‘canned’) hunting industry, but is being developed as a stand-alone commercial endeavour – both ‘canned/captive hunting’ and the ‘lion bone trade’ are based upon animal exploitation for profit, with no proven conservation merit whatsoever;

What does the SANBI’s recommendation say on the potential [continent wide threat to wild lion and wild tiger species in Asia by perpetuating the demand for these species for TCM?](#)

These issues were not examined in the referenced reports [“Bones of Contention”](#) and/or [“Southern Africa wildlife trade - An analysis of CITES trade in South African Development Community \(SADC\) countries”](#) and/or the 2015 [“Biodiversity Management Plan \(BMP\) for the lion \(Panthera leo\) in South Africa.”](#)



[“Biodiversity Management Plan \(BMP\) for the lion \(Panthera leo\) in South Africa”](#) - (last sentence, para 3.8, page 28) says ***“The impact of the lion bone trade on wild lion populations outside of SA however has yet to be determined.”***

It is understood that the DEA has proposed [3 year SANBI study](#) to look into the effects of the lion bone/skeleton trade on wild lion populations a continent wide basis:

“The South African National Biodiversity Institute (SANBI) has initiated a study aimed at increasing the understanding of the lion bone trade in South Africa and the captive lion breeding industry.”



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If an SANBI study is needed on the continent-wide impacts of the current lion bone trade, if the potential effects on wild species are not fully understood, if the DEA suggests that without a lion bone trade quota there is potentially a risk to wild lion/tiger populations, where is the DEA's/SANBI's current scientific proof (not a hypothesis based on a wedded devotion to 'sustainable utilisation') of the conservation purpose of the lion bone trade/captive bred lion breeding?

Any support of a current lion bone trade quota in the absence of knowing the potential continent-wide risks to the conservation of the African lion species also contradicts the [International Union for Conservation of Nature \(IUCN\)](#) when the IUCN concluded in September 2016:

“the prohibition by the South African Government on the capture of wild lions for breeding or keeping in captivity“ and “terminating the hunting of captive-bred lions (Panthera leo) and other predators and captive breeding for commercial, non-conservation purposes.”

4.1 Conclusions - The African lion species is under threat, but does the lion bone trade increase, or decrease that threat within South Africa and/or on a continent-wide basis?

There has been no science presented by the SANBI (or anyone else) that conclusively proves that perpetuating the lion bone trade is necessary to reduce the perceived threat to the wild species. The opposite would seem to be more likely – that “...the legal trade in 'lion' bones is fuelling the illegal trade in lion and tiger bones” - [“The Extinction Business, South Africa's 'Lion' Bone Trade,”](#) EMS Foundation and Ban Animal Trading, July 2018



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5 Does the lion bone trade substitute as a supply to make up for the 'absence' of tiger derivative products?

The DEA appears to be under the delusion that the trade in tiger bones has subsided because of the 2007 (CoP14) CITES "ban" ([decision 14.69](#)):

"A 2015 study commissioned by TRAFFIC [["Bones of Contention"](#)] raised concerns around the shift in lion and tiger bone trade; namely that when the trade in tiger bone was banned; the trade shifted and bones were sourced from South Africa, available as a by-product of the hunting of captive bred lions" - DEA's [28 June 2017 media statement](#)

The DEA's perceived absence of tiger derivative products is used by the DEA as justification for South Africa to substitute 'a lack of tiger derivative products' (sic) with a lion bone trade quota to meet demand in Asia for Traditional Chinese Medicine (TCM) ingredients derived from felids.

However:

- the 2015 "[Bones of Contention](#)" report ^[page 7 - 10] cited by the DEA suggests South Africa was/is still supplying tiger bones/parts (in contravention of CITES [decision 14.69](#));
- The 2017, Environmental Investigation Agency (EIA), "[The Lion's Share](#)," suggests there are more than 6,000 tigers held in captive breeding facilities in China, Laos and Vietnam to supply tiger bones to the TCM industry (more than in 2008 when CITES' "ban" guidance was supposed to be implemented), plus South Africa's exportation of tiger parts.



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"[The Lion's Share](#)" - Environmental Investigation Agency, July 2017

"Asia's massive unchecked demand for skins, bones, teeth and claws continues to drive poaching of wild tigers. This demand is exacerbated by the supply of huge volumes of African lion bone, teeth and claws, sold as tiger parts to less-discerning consumers in Asia" - "[The Lion's Share](#)"

"South Africa allows lion and tiger farming for commercial trade in parts and derivatives....in 2015, 280 tigers were estimated to be in at least 44 facilities in South Africa" - "[The Lion's Share](#)"

So, South Africa is playing an active role in circumventing CITES [decision 14.69](#) to end the commercial farming of tigers. Tigers are seemingly being bred ("[Tigers are being bred in Gauteng backyards for petting and bone export](#)," Don Pinnock, Daily Maverick, 23 April 2018) with impunity in South Africa:

"Because they're not an indigenous species, trade in tigers is unregulated and flying below the radar of the DEA (Department of Environmental Affairs). When asked about it by Ban Animal Trading and the EMS Foundation, the DEA response was that tigers weren't the department's responsibility because they're "exotics". In reply to a request for information on tiger breeding facilities, Limpopo DEA wildlife director Sam Makhubele said the department had never been approached and he seemed surprised that they even existed."

The 2015 TRAFFIC/WildCRU report, [Bones of Contention](#) "estimated there were at the time 280 tigers in 44 facilities in South Africa. Today there are undoubtedly far more,



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but because tiger breeding doesn’t have to be reported, numbers are hard to establish.”

Therefore, South Africa’s ‘captive’ lion bone/skeleton exports are supplementing, not replacing any diminished supply of tiger bones/parts – any follow up enforcement of CITES’ “ban” ([decision 14.69](#)) to end tiger farming, has failed (including within South Africa itself).

5.1 Conclusions - Does the lion bone trade substitute as a supply to make up for the ‘absence’ of tiger derivative products?

The science/evidence does not support the DEA’s claim that a lion bone trade quota is ‘necessary’ to make up for a supply shortfall in tiger derivative products since the CITES ([decision 14.69](#)) “ban” – this DEA justification for perpetuating the ‘captive’ lion bone/skeleton trade in the non-existent ‘absence’ of continued tiger farming within South Africa and Asia is a delusion.



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6 Does any element of the lion bone trade pose a potential risk to human health?

In a question (Question No. [NW1581, raised by Mr N Singh, May 2017](#)) to the Minister (DEA), concerning the human health issue of the transfer of Tuberculosis (TB) from lions to humans [reference "[Dying for a Myth](#)"], only a partial and wholly inadequate response was given.

The 'captive' lion breeding industry's 'stock' is not subject to regular TB testing and the whole arena of the 'captive' industry was not addressed in the Minister's [reply](#). So, the question remains, how can it be known if the export of 'captive' lion bones/skeletons for human consumption are a hazard to human health? Or do we assume the Minister/DEA do not know, or wish to care about this potential human health hazard from lion bone/skeleton exports sanctioned by the DEA?

"I am therefore of the opinion that uncontrolled exposure of humans to bones from animals, in particular lion bones, poses a risk for development of the form of TB known as bovine TB in particular, although not necessarily being limited to this form of TB only" - Professor Paul van Helden, Director of the South African Medical Research Council's Centre for Molecular and Cellular Biology and Co-Director, DST/NRF Centre of Excellence for Biomedical TB Research - "[Dying for a Myth](#)"

The Minister's written [reply](#) suggests *"the National Department for Agriculture [Agriculture, Forestry and Fisheries (DAFF)] would be in a better position to respond."*

So where is the clarity that any 'captive' lion bones/skeletons being exported by South Africa do not carry TB organisms harmful to human health, and which department is responsible for checking the exports of lion bones/skeletons - the DEA, the DAFF, or the Provincial offices?

6.1 Conclusions – Does any element of the lion bone trade pose a potential risk to human health?

In the absence of any surety that any lion bone trade is fit for human consumption, the trade quota should be set at zero based upon the precautionary principle (that the risks are currently unknown and therefore the risk should be mitigated by halting such trade), not to mention the potential liability being built up by South Africa by perpetuating such trade in the absence of knowledge of the risks posed.



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7 Summary and Conclusions

South Africa's constitutional rights on the issue of 'sustainable' wildlife utilisation are enshrined at Section 24, "*Chapter 2, Bill of Rights, Environment.*"

This section refers to ensuring everyone's right "*to an environment that is not harmful to their health or wellbeing;*" "*to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that*" amongst other criteria "*promote conservation,*" whilst ensuring "*secure ecologically sustainable development and use of natural resources...*"

So, how is the 'captive' breeding of African lions and the lion bone trade for example, considered a "*reasonable legislative*" measure that "*promotes conservation*" when there is no independent scientific evidence that the 'captive' big cat breeding industry/lion bone trade provides any conservation value (and never has since its manifestation in the 1990s)?

The African lion (*Panthera leo*) is a "*Protected Species*" within the NEMBA listings:

- NEMBA, specifically Chapter 4 ("*THREATENED OR PROTECTED ECOSYSTEMS AND SPECIES*"), Part 2 ("*Protection of threatened or protected species*") and Part 3 ("*Trade in listed threatened or protected species*") are therefore applicable.
- NEMBA, Chapter 4, Part 2 ("*Listing of species that are threatened or in need of national protection*") section 56.(1)(d). states "*protected species, being any species which are of such high conservation value or national importance that they require national protection...*" So the African lion is clearly stated as being of "*high conservation value*" as a "*protected species.*"
- NEMBA, Chapter 4, Part 2 applies ("*Restricted activities involving listed threatened or protected species*") with section 57.(2)(a) stating that the Minister may prohibit any activity "*which is of a nature that may negatively impact on the survival of a listed threatened or protected species without a permit issued in terms of Chapter 7*" ("*Permits*").

The South African lion breeders themselves sought to establish trade in lion bones/skeletons from 2008 ("[Bones of Contention](#)" ^[page 7 – 10]) not only as a by-product of the 'canned' lion



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hunting industry, but also by slaughtering captive lion stocks specifically to supply a lion bone trade export quota – for profit and nothing else.

In the past, the DEA has cited (DEA's [28 June 2017 media statement](#)) the theory that halting this very lion bone/skeleton trade and the legitimised demand so created, could increase the potential threat to wild lion populations as justification for perpetuating " *...the trade in bones originating from captive bred lion...*"

If the establishment of a lion bone trade itself potentially created a risk to the wild species – stimulating and giving credence to demand - any self-fulfilling prophecy of the potential risks posed to the wild species should have been negated by the precautionary principle in the first place. The lion bone trade should never have been sanctioned. Instead cavalier risks were taken to establish the lion bone trade based upon purely commercial motivations. Perpetuating that mistake is not supported by any scientific evidence. The opportunity should be taken to try to reverse that mistake and close the lion bone trade down in its entirety.

Neither the captive breeding of lions for trophy hunting, and/or the export of lion bones, bone pieces, bone products, skeletons and derivative products such as lion claws, skulls and teeth of lion bones/skeletons has any scientifically proven conservation purpose, only a profiteering incentive – however any such exploitation/trade could clearly escalate to become *"of a nature that may negatively impact on the survival of a listed threatened or protected species....."* – NEMBA, Chapter 4, part 2

The Minister should act to prohibit the proliferation of the potential continent-wide threat the lion bone trade poses to wild lion populations – in the absence of any science that says that proliferation threat is mitigated, then the precautionary principle should now be applied and the 2019 lion bone trade quota set at zero and endure at zero for the foreseeable future.

In summary:

- There is no independent scientific justification in existence to support the notion that the self-established lion bone trade must be perpetuated because if it is stopped, then illicit behaviour will inevitably flourish in its absence – this threat of increased illicit behaviour in the absence of a legal lion bone trade quota should be countered by strict law enforcement to ensure the rule of law prevails;
- The pro-trade theory that ending legal trade will put pressure on wild lion populations is not supported by any independent, peer-reviewed science;



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- There is no science that says a 'legal' mechanism (such as the lion bone trade) is guaranteed to counter and can control illicit behaviour. The likelihood is that the opposite is true "*....the legal trade in 'lion' bones is fuelling the illegal trade in lion and tiger bones*" - "[The Extinction Business, South Africa's 'Lion' Bone Trade](#)," EMS Foundation and Ban Animal Trading, July 2018. Therefore, any legal lion bone trade is likely to escalate the pressure on wild lion populations as demand is stimulated, legitimised and expanded, providing opportunities to launder illicitly sourced lion, tiger and leopard body parts;
- The whole notion of any 'legal' wildlife trade (be that a lion bone trade, rhino horn, ivory etc.) is based upon the false assumption that such 'legal' trade means the entire market will be within the control of those orchestrating such 'legal' trade and will reach some kind of natural equilibrium (and quash any illicit activity that also seeks to profit). This is an economic fallacy that has been known within academic circles to be a delusion for some considerable time:

"One of the most striking features in the economic analysis of wildlife trade is the level of misinformation concerning the evolution of market theory over the last six decades. To anyone who comes in contact with the corpus of literature on wildlife trade, and in particular the literature recommending the use of market-based policies, the uncritical use of theoretically discredited analytical instruments is a striking revelation. Perhaps the most important issue here is the conviction that markets behave as self-regulating mechanisms that smoothly lead to equilibrium allocations and therefore to economic efficiency. This belief is not sustained by any theoretical result, a fact that is well known in the discipline since at least the early seventies" - Alejandro Nadal's and Francisco Aguayo's 2014 paper ("[Leonardo's Sailors: A Review of the Economic Analysis of Wildlife Trade](#)")

- The lion bone trade (by legal and/or illicit means) is seemingly perpetuated by those that seek to profit and not motivated by any greater altruistic purpose (such as species' conservation). There is no scientific justification (and never has been) for any lion bone trade quota – conservation was not a driver when the lion bone trade was established as a stand-alone commercial endeavour in 2008 and conservation is not a driver for a lion bone trade quota in 2019;



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- There is a potential human health risk (transmission of Tuberculosis (TB)) and potential build-up of liability for South Africa in perpetuating any form of lion bone trade;
- The science/evidence does not support the DEA’s claim that a lion bone trade quota is ‘necessary’ to make up for a supply shortfall in tiger derivative products since the CITES ([decision 14.69](#)) “ban” – this DEA justification for perpetuating the ‘captive’ lion bone/skeleton trade in the non-existent ‘absence’ of continued tiger farming within South Africa and Asia is a delusion
- The lion bone trade quota should be set at zero for 2019 and endure at zero until such time as any independent, peer-reviewed scientific justification for such trade can be established;
- There is no scientific justification for any captive lion/big cat breeding industry (and the by-product of captive trophy hunting being fed into any lion bone trade quota) – the captive breeding of lions serves no conservation purpose and the entire industry should be shut down as a matter of urgency.