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MEOW AND OTHER LIONS

Dr Richard Hoare is a veterinarian and wildlife biologist with a PhD in Wildlife Management and has over 30 years experience in the field. In his paper, "Cecil... And Other Lions" he explores the dilemmas African Lions face and the best way for us, as global citizens, to honour Cecil's memory through Conservation.

Cecil had a familiar and catchy 'human' name, given to him by researchers who studied and documented his life history. He was an impressive mature lion, especially good-looking due to his magnificent black mane. He was very tolerant of human presence in Zimbabwe's Hwange National Park (HNP) and therefore much admired and photographed by visitors. He was actually quite old for a lion still holding a territory with a pride of lionesses and their cubs (he was 12 years old). All these things, plus the facts surrounding the hunt which killed him and the attempt by his hunters to conceal their illegal actions, led to the worldwide media phenomenon that became 'Cecil' in August 2015. In London, someone with a social conscience said it all when they attached a small tag to one of Trafalgar Square's famous bronze lion statues that simply said 'Je suis Cecil'.

Most of those across the globe who expressed outrage at Cecil's fate had of course not known him, and many had likely never actually seen a wild lion in the flesh. These people, through no fault of their own, have little knowledge of the practices relating to 'safari' hunting of big game in Africa. That is no crime, but what is of concern to those working to conserve Africa's magnificent wildlife against all the multiple threats to it, is just that – the fact that lions also face many more and far greater threats than safari hunting. The complex nature of these multiple threats is what needs to be publicised and understood, in order to safeguard many species of wild animals and their habitats in contemporary Africa.

The western region of Zimbabwe and adjacent eastern Botswana are one of the 10 strongholds for lions in Africa, each of which is estimated to hold more than 1500 lions. While the geographical range of African lions contracted rapidly many years ago, in the last 30 years there has been a steep decline of lion numbers even within the remaining, relatively small range. Actual figures are not so relevant since lions are so hard to count exactly, but what virtually no one disputes is that the overall population trend of wild African lions is heading steeply downwards. Although found in more countries than rhinos, an astonishing near-possibility is that the current total population of wild lions may not be too different from the world's total rhinos.

What many people even in Zimbabwe do not know is that Cecil's biographer – an Oxford University research project called Hwange Lion Research (HLR) was started in 1989 specifically in response to complaints by tourists and photographic tour operators about very few lions, especially larger males. This research project counted the population, studied their movements, demography and habits and after less than 5 years came to the conclusion that quotas allowed for safari hunting of lions were excessive. Over many years, the cumulative effect of overhunting had greatly reduced Hwange's lion population. Due to the complex social dynamics of lion prides, mostly to do with male coalitions and infanticide of cubs, many 'dependent' lions can perish as a result of the removal of trophy males. As a result of Hwange Lion Research's work, the Government of Zimbabwe's wildlife authority placed a moratorium on lion hunts for four years (2004–2008). In that time the lion population increased by 50% and adult males increased by almost 200% – a great example of the benefits of collaboration between independent researchers and official management authorities.

After this population recovery phase, lion hunting was reintroduced with a much reduced quota. The reason for this is that the Hwange population, now estimated to be around 540 animals, can sustain a small offset from trophy hunting as an activity that has a very low environmental footprint. Contrary to a widely-held misconception in the western world that Africa still has large expanses of undeveloped, scenic bush teeming with wild animals, the modern reality is much different. The rapidly expanding human population has made virtually all wild animal sanctuaries, of whatever type and however large, into geographical islands. If any land remains lightly populated this is chiefly because it is unsuitable for agriculture and human settlement.

The dispersal of some lions outside the protection of the national park boundary is a regular occurrence that goes on as part of their natural biology. But these are more often younger males termed 'nomads' – who haven't yet managed to settle with a territorial pride of females. Some have travelled a hundred kilometres or more through areas of dense human settlement. Older males who are sought after by safari hunters as the best lion trophies are usually found inside the park with their prides but, as in the case of Cecil, can be lured from this protection by the questionable ethics of deploying baits along the boundary line. Up to this point in 2015, a lion with a radio-collar is unfortunately not exempt from trophy hunting.

When faced with the realities of life in Africa, many conservationists do not object to a small, but tightly-regulated safari hunting industry where ethical practices of 'fair chase' are adhered to and where high financial returns can be generated from an activity that has a very low environmental footprint. Contrary to a widely-held misconception in the western world that Africa still has large expanses of undeveloped, scenic bush teeming with wild animals, the modern reality is much different. The rapidly expanding human population has made virtually all wild animal sanctuaries, of whatever type and however large, into geographical islands. If any land remains lightly populated this is chiefly because it is unsuitable for agriculture and human settlement.

In many such places where farming cannot be practiced, the scenery is unremarkable and wild animals may not be abundant, safari hunting is one of the only remaining land-use options. Safari hunting businesses that are ethical will curb illegal poaching and logging, develop water supplies which may benefit wildlife and provide employment and to support diverse development projects in surrounding human communities. Unfortunately, of course, the opposite also applies: hunters can be unethical and pursue only short term gain while corruption and weak law enforcement by officials can allow over-exploitation of animals.

But the real point of today's conservation message is that when the global outrage over Cecil has passed lions will have to continue to contend, in silence, with other mortal threats. Legally controlled hunting is only a relatively minor pressure on wild lion populations. Far more are killed in conflict with people: lions are shot, poisoned, speared or caught in wire snares right across the continent because of predation on livestock – sometimes real, or as is frequently the case, only perceived. And the rapid expansion of human activity has simultaneously decimated many prey species, effectively starving lions out of much of their range. The latter is a subtle process that goes largely unrecorded or unquantified.

But there is no need for continual bad news. The key to human-lion conflict resolution is funding good research and using innovation and technology – in approximately equal measure. Hwange Lion Research instituted a 'Lion Guardian' project, based on the successful model developed in East Africa amongst Masai pastoralists – once famed for their traditional persecution of lions, but now transformed to become lion protectors. What did they discover around Hwange? Firstly, that 80% of livestock taken by lions around Hwange National Park were stray animals. So improved herding and management practices by local communities would greatly reduce the problem.

Do all lions kill people's livestock? No, very few do. Because Hwange lion researchers have been studying the lion conflict scenario for so long, they can now predict which individuals might leave the park to subsist on stock-raiding and even when this might occur. Connecting modern technology and simple, common sense ideas can greatly mitigate this conflict. These lions (often the 'nomad' sub-adult males but occasionally females) have been radio-collared and their timed location fixes sent via satellite to researchers almost in real time. The researcher can then alert the project's Lion Guardian who is resident in the nearest village, using a mobile phone. The guardian thus warns villagers to avoid grazing their livestock near the lion. And if a lion is lurking near a village, the guardian assembles a large gang of village men who, accompanied by dogs (or sound recordings of barking dogs) and armed with Vuvuzelas (bright horns used at African football matches), set off en masse to the exact location of the hiding lion. A noisy, motivated and determined force of such magnitude is more than a match for a relatively inexperienced lion, who takes off without hesitation – empty-handed. Repeating this near the next village soon teaches the lion that his new way of life is going to be a difficult one, thus encouraging his retreat to safer territory.

But the real point here is that the lion is spared; previously it would have been killed by local people or baited and shot by hunters or the authorities, often just for being in proximity to people. In time if communities are not being impacted by lions, they realise the greater value of five lions (most of whom now have names) which indirectly provide them with vital employment opportunities via the park's tourism industry.

However, at night in 'bomas' (stockades made of indigenous timber logs), corralled cattle and goats can still be vulnerable to a lion attack. A recent innovation is to replace these structures with boma 'walls' made from opaque white plastic sheeting which is supported by tall poles and strung on cables like a curtain. This exploits a technique used in the live capture of game animals – the fact that many wild species are 'spooked' by the noise of a flimsy opaque barrier – and being naive to it, therefore will not challenge it. And so far no lion has yet breached these bomas around Hwange to kill cattle, donkeys or goats. An added bonus is both the reduced environmental cost of cutting the indigenous timber and another innovation – the siting of these bomas on fallow crop fields where livestock collected together from a number of households can deposit soil-nourishing manure. Moving the bomas around gives different peoples' fields a turn to be fertilized.

The whole human-lion conflict scenario is illustrated in a comic booklet produced by Hwange Lion Research, who distribute it widely to children in local schools in the conflict zone around Hwange. Children take the booklet home and explain and share it with their families. All this amounts to a win-win scenario for lions, researchers, wildlife authorities and local people, through a shared sense of 'ownership' of both the problem and its solution. Lion conflict cases around Hwange have declined by a half to three-quarters of their previous levels since the relatively recent introduction of the 'Longshields Lion Guardian Programme' in 2012.

The lion bone trade – little known outside professional conservation and hunting circles – clearly illustrates how complex a subject wildlife conservation has become in this day and age. With tiger bones in such short supply in Asia, some years ago the traditional oriental medicine trade turned to lion bones. Fortunately, the 'canned hunting' industry of South Africa (trophy hunting of semi-fame lions or small, strongly-fenced game farms) capitalised on this additional source of income and became a ready supplier of lion bones, thereby taking the pressure of supply away from poached wild lions. But the dubious ethics of captive-bred immature lions being tamed and used for 'walking with lions' tourism and then for canned hunts thereafter as adults, is leading to a furious backlash of public opinion. As such this industry's days may be numbered. If so then... wild lions may be targeted to supply this large market that has now established in Asia. And we all know what a valuable commodity in Asia has done in recent years to Africa's rhinos and elephants.

Because lions are easily kept captive when they breed prolifically, there is an easy conceptual solution to the decline in wild lions: why not just breed lions in captivity and reintroduce them to the depleted wild areas? Unfortunately, this simple concept is fraught with complex problems. This was explained in a very lively exchange which recently took place in literature between international experts in wild carnivore conservation and the 'lion encounter' industry as this commercial tourism activity is known.

Firstly, being the only cat species that is highly social, wild lions have evolved complex social dynamics essential for their survival. Captive-bred lions with their mixed origins, habituation to people and manipulation in breeding establishments, have poorer social structures that may easily compromise their wild survival or encourage conflict with people. Secondly, different geographical wild lion populations have subtle genetic distinctions and associated local adaptations which the highly genetically-mixed captive population is unable to replicate for a reintroduction. Thirdly, through exposure to humans and other animals in captive conditions, captive-bred lions may pose disease risks to wild lions in ways that are not yet fully understood and for which testing may still be inadequate. And lastly and most importantly, reintroducing any captive-bred animal to the wild can only be successful if the original problems which eliminated it in the first place, have been identified and resolved. Wild lions have been successfully translocated and re-established in many new locations in southern Africa but to date not one captive-bred lion has been the founder of a wild population. The fairly large lion encounter and associated canned hunting industry in South Africa is a purely commercial enterprise which is struggling to justify being of any benefit to wild lions or conservation, in the face of a determined campaign of public opinion against it, that is steadily gaining momentum.

What are the real values of lions? The deep cultural value of the lion as a symbol is a hugely important part of human history and a reflection on how at one time, the species occurred across several continents. A centrepiece of the magnificent 35,000 year-old rock paintings discovered in the Chauvet cave in France depicts lions, apparently also clearly illustrating remarkable human understanding of natural lion behaviour. Lions have an important ecological role in natural ecosystems: predation keeps prey populations viable and thereby natural vegetation in a healthy state, which in turn influences natural evolutionary processes – the latter sadly along a time scale too slow to be much appreciated by modern humans. In the modern age lions have a direct and high commercial value for both consumptive (hunting) and non-consumptive (photographic) tourism in Africa. In many countries seeing lions is the highlight of a child's visit to any zoo and the highlight of most people's safaris to Africa.

Conservation in Africa is now truly global; humans interact with wildlife at every level across continents and often those who have the greatest effect on wildlife declines are people whose businesses are exploiting a resource thousands of kilometres away, about which they remain almost completely ignorant. Today's lions have to contend with everybody from smiling dentists in Minnesota to angry village residents in Africa to shady back-street traders in Vietnam. We in Zimbabwe and across Africa are asking of the world that no longer has lions, one simple request: help us ensure Cecil did not die in vain; help us protect the remaining wild lions and the great diversity of other wild species that are under dire threats to their survival.

The king of beasts' has been resilient to environmental change for millennia but as with many other forms of natural life, modern humans are now really pushing the limits of its endurance. Time is not on the lion's side. How impoverished would the human spirit become if our species finally extinguished the roar of a wild lion – that spectacular sound that excites all who experience it?

Dr Richard Hoare

Veterinarian and Wildlife Biologist PhD
Former - Manager, Messeri Wildlife Veterinary Programme, Serengeti, Tanzania
& Conservation Manager, African Bush Camps Foundation, Zimbabwe
Currently - Project Manager Conservation & Wildlife Fund (CWF)
Harare, Zimbabwe.

FURTHER READING TITLES

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Life after Cecil: channelling global outrage into funding for conservation in Africa. Conservation Letters 2015.

David W. Macdonald, Kim S. Jacobsen, Dawn Burnham, Paul J. Johnson and Andrew J. Loveridge: Cecil: A Moment or a Movement? Analysis of Media Coverage of the Death of a Lion. PLoS ONE 10(12): e0182000, 2015. doi:10.1371/journal.pone.0182000



Cecil the Lion
Photo by Nic Potemakis

It was in July 2015 that the face of Conservation would change forever when one of Hwange National Park's male lions would become the face of wildlife Conservation globally. On this tragic day, a male lion known as Cecil, who has now become Zimbabwe's legendary lion, was killed by a trophy hunter outside the boundaries of Hwange National Park in Zimbabwe. Renowned for his magnificent black mane and his casual and calm behaviour around tourist vehicles, Cecil had become a firm favourite amongst photographic operators and visitors to the park. His untimely death sparked international outrage and unprecedented awareness of the plight of the African Lion Species in Africa. Today, Cecil is remembered with fondness and his legacy lives on through his pride and cubs.



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Partly in response to Cecil's death, a number of four operators in the Hwange National Park area joined forces to create the Conservation and Wildlife Fund (CWF), which focuses on the long-term protection of Zimbabwe's wildlife, communities and habitats.



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Project Manager Conservation & Wildlife Fund (CWF)

Dr Richard Hoare
rhwildlife@gmail.com +26371052888
<https://www.facebook.com/ConservationWildlifeFund/>