



DEDICATED TO THE WORLD'S CUSTODIANS OF WILD SPACES & WILDLIFE

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Conservation First

Guest Editorial by Malan Lindeque & Rosalia Iileka

READ TIME 10 MINS

This editorial highlights the “trial by ordeal” that hunting is now being subjected to and asks some questions of those who engineer global anti-hunting campaigns. What will happen to biodiversity and rural communities if hunting is consigned to the dustbin of history? The hunting community also faces stark choices. Hunters not conforming to long-term sustainability objectives—those who do not put conservation first, and who fail to convey a convincing message—will self-destruct. Malan Lindeque and Rosalia Iileka suggest solutions.

An extraordinary public debate is currently taking place about trophy hunting¹. Everyone imaginable has an opinion or a judgement, and of judgements there are many. This public debate started some years ago as groups opposed to hunting brought their causes to various European governments, the European Parliament and the US government, with the occasional famous actor, music star and television pundit throwing in their emotional anti-hunting diatribes as well.

Over the past year, opposition to hunting has moved beyond a debate to a trial by ordeal². This is the medieval judicial practice of determining the guilt or innocence of an accused by torture, poisoning or similar unpleasant experience. The test was life or death and the proof of innocence was survival. It was briefly revived in Salem, Massachusetts, in the 1690s to deal with witches; Senator Joseph McCarthy used the same tactic in the 1950s to target “reds”³ in the US.

Irrationality abounds in human history—and today’s “discussion” about hunting is simply more such irrationality. Two groups of people, who both in their own ways love wildlife and nature, are shooting it out. One ardently believes that hunting is evil incarnate, and leads a coterie of short-attention-span journalists and tourism operators who style themselves as conservationists. These good people normally just attack politicians, or market idyllic but often contrived tourism experiences. Altogether, they make up the accusing side, the high priests and witch-burners of our day.

From the other side, one doesn’t hear much. The various hunting organizations have opinions, of course, but they’re not seen or heard or read in the media every day. Instead of talking to the public, they tend to talk among themselves, and these conversations come to a head at their annual conventions.

¹ In Namibia we stopped using the term “trophy hunting” years ago. The Namibian government prefers “conservation hunting” in order to make the point that, in Namibia, hunting is fully integrated into the conservation strategy of the country. We will here only refer to hunting.

² In medieval Europe, trial by ordeal was considered a “judgement of God” based on the premise that God would perform miracles on behalf of the innocent. The practice goes back to the Codes of Hammurabi and of Ur-Nammu.

³ Joseph McCarthy alleged that Communists, Soviet spies and sympathizers had infiltrated the United States government, universities and film industry. The term “McCarthyism” is today used more broadly to mean demagogic, reckless and unsubstantiated accusations.

One hears even less from individual hunters. Do they not have opinions? Their cultural patrimony—or rite of passage, wilderness experience, primal connection with nature, homage to their deepest instincts—is in the sights (as it were) of the big media guns! Are they afraid to put their heads above the parapet and suffer the same vicious harassment that was meted out to Dr. Palmer of Cecil the Lion fame, and the persons who dared to bid on a black rhino auction at the Dallas Safari Club Convention some years ago? Those people got the full PETA treatment.

So much for enlightenment, reasoned dialogue and tolerance. We are back in the Dark Ages.

Hunters must do more to explain their rationales, to defend themselves and to break down the negative stereotypes. And their reply cannot be simply, *Yup, I shot the giraffe, it was delicious, and I made some cushion covers from its hide*. This is hardly positive, pro-hunting messaging.

And what about the people who have the most to lose, should hunting somehow be stopped? In southern Africa, in Central Asia and, for that matter, across Europe and North America—indeed, all around the globe—hundreds of thousands and perhaps millions of ordinary, mostly rural people will be affected, and not for the better. Have we heard from them?

In some places, at the local and regional levels, we have. In large parts of southern Africa, for example, hunting takes place on community lands as part of important, and proven, conservation programs. Wildlife is again abundant on these lands because rural communities have a say in the disposition of their natural resources. This is an inalienable right. No one on the outside should form an opinion about hunting without first listening to what these people have to say about it. (And have the consequences to them been considered by those who wish to ban hunting?)

In Namibia, Zambia and Zimbabwe—and, to a lesser extent, Botswana and Mozambique—wildlife habitat on community land equals or exceeds wildlife habitat in those countries' national parks. These are seriously large stretches of land that connect distant national parks with habitat and migration corridors. This is exactly what is needed to accommodate changes in wildlife distribution that the climate crisis is projected to cause.

Add to this other large swathes of freehold land—in countries such as Namibia and South Africa—that are now committed to wildlife because this is economically more viable than

traditional agriculture. Forty percent or more of land in these countries is now under wildlife-friendly usage, and on large tracts of these areas, this includes hunting. Can those who vociferously oppose and condemn hunting say this of their own countries?

The Southern African Model of wildlife habitat protection underpins some of the greatest conservation successes of the past century. Countries that have adopted this model hold the largest populations of elephants, black and white rhinos, cheetah, leopard, lion and giraffe in Africa. These species are in severe decline elsewhere. The Southern African Model depends on the economic returns that are generated by tourism and hunting. Tourism works well in scenic and easily accessible places; hunting works everywhere, but especially in the MMBA, the “miles and miles of bloody Africa” that tourists will never see (and probably would prefer not to experience).

We should not forget about the role of hunting in food security, too: Rural African communities are generally protein-deficient, and hunting makes a huge difference in meeting this challenge. Meat from hunting contributes to the health of many thousands of children who attend school to build their futures. Why should anyone wish to stop this? These wise land-use choices, based on tourism and hunting, meet the needs of rural communities and support climate-crisis-resilient biodiversity.

Real conservation organizations wholeheartedly support such fundamental, large-scale community involvement in conservation. No one who puts conservation first should have any problem with this paradigm and with hunting.

Unfortunately, however, there is hunting and there is hunting. Here we mean well-regulated hunting based on sustainable quotas of animals determined by a robust system of checks and balances based on long-term ecological monitoring. No “short-termism” must be allowed! No fly-by-night hunting outfitters and professional hunters seeking economic gain over long-term conservation and sustainability should be tolerated, anywhere. Hunting that does not conform to a conservation-based vision of sustainability should not even be called hunting; it is just shooting, and there is no place for this except among game wardens or duly assigned culling teams.

Yes, this is possible. Corrupt actors must be made to leave the industry. Complicit government officials too must bite the dust.

The message of today is clear: The urban public and the governments they elect will not support hunting, especially the hunting of iconic species, unless such hunting *demonstrably* contributes to conservation.

Meanwhile, back at home . . . how strange it is that no one seems to complain about the tens of thousands of deer, elk and moose hunted in North America and Scandinavia, or the red and roe deer and wild boar killed in Europe. Why is it permissible to hunt in the West but not in Africa or Asia? This reinforces the worst images that the governments and rural people of Africa and Asia have of the West.

At a recent meeting, conservationist Shane Mahoney made it clear that hunting is so little understood and so negatively perceived in large part *because* of the messaging from hunters and their associations. This is enormously self-destructive and will surely be the end of hunting —yet this messaging is probably the only aspect of the current ordeal that is entirely within the control of the hunting community.

This is what we believe needs be done, urgently:

1. Hunting organizations must unambiguously reposition themselves as *conservation organizations that hunt*. They must demonstrate that they act to protect wildlife and, through hunting, pay for wide-ranging habitat protection. Nothing less than this will be acceptable in today's society, especially to a younger generation deeply aware of the global catastrophes of habitat and wildlife destruction and climate crisis. Today's swing in European elections towards the Green Party is attributed to the youth vote precisely because of these concerns. Hunting organizations must be able to substantiate (with hard data and regular reports) their claims of conservation benefits through hunting. They should embrace this, not fear it, as an investment in the future of hunting.
2. A very modern rebranding should accompany this repositioning. If the hunting community, which has done so much more to protect wildlife and habitat than anyone else, does not act quickly, others will claim the habitat conversion space. Those who oppose hunting and sustainable use, including animal-rights groups and certain elements in the tourism industry, are well on their way to doing just this, despite the fact that they deliver no real conservation benefits in addition to the money they spend on the actual hunt.

3. In light of the non-hunting urban public's image of hunters, more than ever before hunting must be recast as a conservation activity. For real hunters, hunting—the benign, sustainable, pro-habitat and pro-people hunting that should be the only form that survives—has never been anything else. The conservation value from *every single hunt* must be evident. Hunting can be allowed only if it demonstrates *at site level* that it embraces and supports good conservation and habitat-management practices. (And if it does not, it must be called out for what it is: unacceptable.) In Africa and Asia, we need something like the very successful US duck-stamp program, or the Pittman-Robertson Act (the tax on hunting, angling and outdoor equipment that funds conservation agencies and activities), which allows every hunter to help pay for habitat and species conservation, apart from the money they spend on the actual hunt.
4. Buying a game stamp or a hunt, or paying a levy, does not entitle anyone to disrespect, in any way, wildlife and habitat. Therefore, hunter education in ethics is crucial. African and Asian governments should not allow anyone to hunt unless they belong to a reputable hunting association, one with recognized ethical standards, in their home country. Namibia has recently introducing mandatory ethics training (and re-training) for professional hunters and hunting guides, no matter how long they have been in the industry. Ethical conduct is the foundation; there is no room for anything less.
5. Mere recreation cannot justify hunting. The notion of killing an animal for “fun” or “sport” is hugely (and rightly) offensive to most people. The rationale for hunting is the total experience—being in the outdoors, living an adventure, embracing nature, wilderness, silence—and the fundamental conservation benefits that it should deliver.
6. Hunters and hunting operators must immerse themselves in true and demonstrable conservation roles, rationales and narratives. They *must* be totally genuine and authentic about this, and they must completely commit to living up to the highest standards of conservation. The public will not accept anything less. Hunters who don't know how to do this must seek help from conservation organizations and thought leaders.

The *Conservation First* concept must be understood and adopted by the hunting professional and the hunting client. The repositioning and reconstruction described here should go some way toward that, but the public conversation must go further and continually evolve. Hunters

themselves should now take this up; otherwise hunting may not survive the current trial by ordeal.

Malan Lindeque is a conservation scientist and former Permanent Secretary of Environment and Tourism in Namibia. He is an advisor to the Minister of Environment and Tourism and sits on the boards of a large private nature reserve and the foremost NGO in the field of community-based conservation. Rosalia Iileka, of the Namibia Nature Foundation, serves as the Wildlife Utilization Officer of the Namibian Association of CBNRM (Community Based Natural Resource Management) Support Organizations; she is directly involved in wildlife and compliance monitoring and in setting utilization quotas for 71 communal conservancies in Namibia

Banner Illustration: Trial by ordeal—medieval torture, painful questions and dubious justice. Woodcut from Neuer Leyenspiegel by Tengler, Strasbourg 1514 ([Wikimedia Commons](#))



Big Game Hunting Still in the Headlines

by Mike Chambers

READ TIME 4 MINS

Mike Chambers' balanced take on big-game hunting in Africa criticizes the often visceral, subconscious reactions of anti-hunting activists. His suggested way forward calls for a consensus among all who strive for bio-stability.

[Conservation Force](#) (CF), the pro-hunting NGO, and lobbyist, is in the news again for its “excessive influence” over the world’s key wildlife watchdogs, according to [The Independent](#). At first glance, good-hearted people in The Independent’s wide readership, who care about biodiversity, must be nodding in agreement. Let’s keep the hunters from influencing wildlife policy. I agree and it is very important but let’s restrict their influence where it is negative not where they do good. Big game hunters are serviced by operators in the hunting countries that

work with local communities and government. How they fit in might not change the result, but taking them into account seems a necessity if the result is ever to be fair.

One difficulty in establishing that fair perspective is a basic preconception. I have to admit I suffered from this preconception and only learned how to interpret this perspective fairly after years (or rather multiple decades) of living close to the issue in various African countries. That preconception is quite simple. The big game hunting model has two elements: the hunter and the hunted. The prey is an animal living its own life, in its own environment. There are many different species but the top tier are iconic representatives of nature itself. The elephant, the lion, and numerous other animals have a symbolic place in our minds. They represent the “primordial magnificence of nature.” It’s actually a very powerful idea that the mind and the heart latch onto with a certainty that doesn’t require a logical explanation.

I think it’s fair to say that the species held to be iconic by this wide swath of Western culture are the same as the species most targeted by trophy hunters. My personal feeling that it is distasteful and wrong to kill an elephant which is an emotional reaction on my part that comes from my “internal relationship” with nature. The Westerner whose internal relationship results in his wanting to kill the iconic species seems to me to be reacting to the same criteria that I am reacting to. My real argument here isn’t that we should organize ourselves better so that we can accommodate stable biodiversity. I care about and try to understand why people kill. For me it is personal.

I still maintain the emotional, almost visceral, kneejerk reaction to hunting elephants. But I need to hold myself to a fairer standard than my own prejudices. I don’t support that man should never kill other species. I eat meat. On the ground in Africa hunters are working together with communities to manage their relationship with wildlife. Farmers need their crops protected and hunters need wildlife to be controlled and protected, as it represents the future of their businesses. Bio-stability is a requirement for them.

It would seem oxymoronic that being against big game hunting makes you for big game but that turns out to be the easy way out. If you want to support biodiversity then we need a new reality on the ground where communities and the surrounding wildlife can find a balance. The fact is that death will always be part of that equation and if big game hunting fills this space then so be it. If big game hunting can play a balanced role bringing better lives to people in local communities and effectively empower them to protect those same species then it has a role.

What has to be avoided is a campaign against big game hunting based on a visceral, sub-conscious reaction derived from our own prejudices. I understand the abhorrence of activists and their revulsion at the joy hunters find in their success. But this question too important to be driven by our faintness of heart or cultural discomfort. You can keep Conservation Force at arm's length. You can disagree or dislike their take on reality. But let's come to a consensus because without it the elephants, and other endangered species, will surely die.

Mike Chambers is an experienced writer and social entrepreneur in East and Central Africa. He now focuses on fundraising for the Elephant Survival Organization UAV anti-poaching surveillance service in Tanzanian parks and reserves. Mike also hopes to join forces with like-minded NGO's to advance the agenda. This article first appeared in [International Policy Digest](#) on June 6 and is republished by permission.

Banner Photo: A very old elephant bull from Nhoma 2, in the northwest of Nyae-Nyae Conservancy (Namibia). Credit: Stephan Jacobs



Propaganda & Conservation

Propaganda in the Trophy Hunting Debate

Card-Stacking, Cherry-Picking, Name-Calling & KISS

by Keith Somerville

READ TIME 10 MINS

Keith Somerville examines a lengthy and ostensibly scientific, but unattributed pamphlet called 'Trophy Hunting & Conservation'. It was distributed at a discussion with UK Environment Minister Michael Gove and attacks the proposition that regulated, fee-paid hunting can benefit conservation and rural communities. The pamphlet's authors twist statements; take data out of context, and cite broad, factual-sounding 'evidence' that is unsupportable or false. Somerville concludes that this is a prime example of anti-hunting propaganda meant to stir emotions and influence opinions on the complex issues of conservation.

In almost every field, we try to influence each other's opinions and persuade people to align their beliefs with ours. We use social media, radio, TV, periodicals, public meetings and advocacy campaigns. And we hear endlessly (in the era of Trump, Fox News, Brexit and Breitbart) of "fake news," as though this were something new. Really, it is just a form of propaganda, which is any form of communication—from Neolithic cave paintings to Twitterbots—meant to sway public opinion.

From *Propaganda and Persuasion* (Sage, 2006): "Propaganda is the deliberate, systematic attempt to shape perceptions, manipulate cognitions, and direct behavior to achieve a response that furthers the desired intent of the propagandist." It uses truth, half-truths and outright falsehoods to sell everything from dish soap to Brexit and the current US President. And now propaganda is being used, effectively and globally, against hunting.

In the late 1930s, in the run-up to the Second World War, the American IPA, Institute for Propaganda Analysis, studied the growth of propaganda, from Nazi and Spanish Civil War political speeches to the radio and print broadsides of the "hate priest," Father Charles Coughlin. Key methods identified by the IPA include—

Card-Stacking: The selection and use of facts or falsehoods, illustrations or distractions, and logical or illogical statements to give the best or the worst possible case for an idea, program, person, or product.

Facts or Falsehoods: In propaganda, the use of truth or lie is governed only by its credibility. If you are not familiar with the subject, you might not be able to detect a lie.

Cherry-Picking: The propagandist uses only those facts and details that support their argument. The selected reasons are used to support the conclusion. You will get misled if you do not notice that important details are missing. The worst part of card-stacking is that it can be very difficult to detect if you are not really knowledgeable about the subject.

Propaganda and conservation

Conservation strategies have for decades been passionately and often bitterly debated—especially when it comes to balancing habitat, wildlife, sustainable use and the rights and livelihoods of local people. In Africa, during the 1970s and '80s, open policy warfare erupted between conservationists such as Iain Douglas-Hamilton in Kenya and Zimbabwe's Rowan

Martin over elephant numbers and whether a legal ivory trade helped or hindered conservation.

Finally, the CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) conference of 1989 voted to ban all international trade in ivory. This ran against the wishes of southern African elephant-range states and of many conservationists who believed that regulated, sustainable ivory sales could fund elephant conservation and motivate local people to tolerate dangerous wildlife. In the months before, a bitter propaganda battle had been fought to influence CITES member states. AWF, the US-based African Wildlife Foundation, had been in favor of sustainable use and did not oppose a legal ivory trade—but by 1989, AWF (followed soon by WWF, the World Wildlife Fund) had moved to a position of total opposition to the ivory trade and was trying to sway American, British, other European and key African states to vote for a ban.

A simple ivory-ban campaign proved more effective than a nuanced one. Lurid posters of elephants with their faces hacked off appeared, headlined *African Chainsaw Massacre*. This set the tone for future debates and advocacy campaigns. Propaganda in all its forms, from card-stacking to cherry-picking and name-calling, was used to stir emotions and influence the opinions of a public ignorant of the complex issues of conservation.

Now, as another CITES conference looms, and in the wake of the [media frenzy](#) over the killing of a lion called Cecil in Zimbabwe in 2015, a debate over hunting itself is in full spate. The British and American governments are under pressure to ban the import of certain hunting trophies and adopt anti-hunting positions. At the same time, however, such bans are increasingly seen as ineffective and even counterproductive by a diverse and growing group of conservation scientists—though they are often not themselves keen advocates of hunting. [Amy Dickman](#) of WildCRU, founder of the Ruaha Carnivore Project in Tanzania, believes that ending trophy hunting would lift crucial protections from vast areas of habitat, which then would be turned over to marginal and unproductive farming and lose all their wildlife, as the animals would no longer have any value to local people. Some international conservation bodies and species-protection NGOs, such as the IUCN (International Union for the Conservation of Nature) and Save the Rhino, also believe that banning hunting would be a step backward and that hunting can—when properly regulated and when the income goes to conservation and local economic development—be one of a cocktail of conservation strategies.

The ‘Cecil Incident’

The old male lion named Cecil by researchers from the [Wildlife Conservation Research Unit](#) of Oxford University (WildCRU) was killed illegally—the hunting concession had no lion permits that year—on the boundary of Hwange National Park in Zimbabwe. The hunter posted a photo of himself and his trophy on Facebook, and the resulting global uproar generated an extreme campaign of vilification of the hunter himself and hunting in general. Animal-rights groups, aided and abetted by some celebrities and politicians, stepped up their push for the US, Britain and other European countries to ban the import of African hunting trophies.

The “Cecil incident” is now one of the cards that is perpetually stacked in opposition to trophy hunting. At a meeting between the UK’s Secretary of State for the Environment, Michael Gove, and sustainable-use supporters from the scientific, conservation and hunting communities, on 15 May 2019, anti-hunters distributed a pamphlet entitled *Trophy Hunting and Conservation: An assessment of evidence regarding impacts and benefits of sport hunting on wildlife and habitat conservation*, with a front-page box touting “conservation before trophy hunting.” It bears no authors’ names.

In fact, the pamphlet contains no scientifically supported assessment of “impacts and benefits,” but rather a long series of bullet points that criticize hunting and try to break down the arguments that support hunting as part of a sustainable-use wildlife policy.

Facts and quotes from reputable conservation organizations and scientists are taken out of context and presented in ways that negate their original meaning, and there is a wealth of inaccuracy and partial truths. Many of the pamphlet’s points supposedly drawn from “studies” are actually from other anti-hunting groups—the Humane Society of the USA and Conservation Action, for example—or individuals such as the Namibian journalist John Grobler. Like all propaganda, the pamphlet is emotive, repetitive, relentlessly consistent and simple. It was created for those with a love of wildlife but little knowledge of the subject, and it adheres to the KISS principle: Keep it Simple, Stupid.

Let me dissect the pamphlet further, with my own bullet points, as it is such a prime example of propaganda:

- The most extreme example of cherry-picking is a statement in large type that “Big game hunting, in terms of conservation, does not work—IUCN.” This attaches the IUCN’s valuable name and reputation to a long denunciation of hunting, but in fact the statement was taken from a discussion paper by French wildlife consultant Bertrand Chardonnet. As Dilys Roe and 14 other IUCN conservation specialists explained in the South African [Daily Maverick](#), on 13 May 2019, “The report which [claims that hunting fails as a conservation tool] was commissioned by a program of the IUCN in order to stimulate discussion, but includes a clear disclaimer that it represents the views of the author only —Bertrand Chardonnet—and not the IUCN.”

(The pamphlet’s version of the Chardonnet paper also appears on the Web site of the anti-hunting group Conservation Action Trust, which also does not mention that the paper is Chardonnet’s view, not the IUCN’s.)

In fact, the IUCN has a clear policy *supporting* sustainable use of wildlife, including well-regulated trophy hunting, and in 2016 produced a [briefing paper](#) that clearly sets out the conservation and cultural benefits of trophy hunting. Nevertheless, the pamphlet frequently but selectively cites the IUCN as though it were aligned with the anti-hunting campaign. The pamphlet also:

- Cherry-picks quotes from scientists such as Andrew Loveridge and Craig Packer while ignoring context, and the fact that Packer—who has long fought against corruption and incompetence in the management of hunting in Tanzania—and other researchers are very concerned that closing hunting concessions there and converting them to farming areas will be disastrous for wildlife.
- Lists numbers of trophies exported from Africa and numbers of species such as elephant, lion, leopard and bear that are hunted legally worldwide, but with no background context, let alone mention of the rights of range states to manage their own wildlife resources. These “data” are meant to raise emotions and impart horror. (Although the pamphlet seeks to influence British politicians, there is no reference to shooting pheasant, grouse, partridge or wildfowl in the UK; the focus is “charismatic” fauna, not birds. This too is a form of cherry-picking.)

- Makes broad, factual-sounding yet unsupportable statements such as, “Studies of lions have found trophy hunting to have been the primary driver of the species’ decline in trophy hunting areas.” One must ask: which studies, which areas and when? At times, poor regulation, inadequate age-limits and scant monitoring have led to overhunting of lions in some areas, but the primary threats to African lions today are habitat loss, human encroachment and human-lion conflict.

Dr. David Macdonald of WildCRU wrote in a scientific [study](#) commissioned by the British government and published in December 2016: “There is little evidence that trophy hunting has substantial negative effects at a national or regional level. Where trophy hunting is well-regulated, transparent and devolves sufficient authority to the land managers, it has the potential to contribute to lion conservation.” Macdonald goes on to call for trophy hunting to be carried out under clear principles of good governance and notes that, where corruption is rooted out and hunting is properly regulated, “The most fundamental benefit of trophy hunting to lion conservation is that it provides a financial incentive to maintain lion habitat that might otherwise be converted to non-wildlife land uses.”

- Abounds with similar out-of-context assertions that do not stand up to scrutiny. Two particularly glaring examples are in the section on the use of hunting fees. One says that there is no evidence that the substantial income from (very limited) hunting black rhino in Namibia benefits conservation. This is demonstrably false. Even the WWF, no great advocate of trophy hunting, [states](#) that hunting income benefits both communities and conservation programs in Namibia. The second example lambastes the Tsholotsho Rural District Council in Zimbabwe for spending elephant-hunting income on a new football stadium, roads and other infrastructure. Yet such “amenities” are precisely what rural communities need in order to improve their citizens’ lives. Spent this way, revenue from hunting makes wildlife not just tolerable but valuable to local people. Without such community benefit, wildlife, especially species that destroy crops or kill livestock or people, will be eradicated.

The pamphlet is such a perfect example of card-stacking, cherry-picking and other manipulations that I will use it in the course on propaganda methods that I teach at the University of Kent. This one document exemplifies, both in content and style, exactly what the

IPA identified (80 years ago!): “the selection and use of facts or falsehoods, illustrations or distractions, and logical or illogical statements.”

[Prof. Keith Somerville](#) is a member of the Durrell Institute of Conservation and Ecology at the University of Kent, where he teaches at the Centre for Journalism; he is also a fellow of the Zoological Society of London, a senior research fellow at the Institute of Commonwealth Studies at the University of London and a member of the IUCN Sustainable Use and Livelihoods Specialist Group. His book [Ivory: Power and Poaching in Africa](#), was published by Hurst & Co. in 2016; another book, [Humans and Lion: Conflict, Conservation and Coexistence](#), will be published by Routledge in July 2019.



Changing Public Perceptions of Hunting Around the World

by Diana Rupp

READ TIME 3 MINS

Hunters in Colorado and Michigan, and the Wildlife Councils in the two states, teamed up with the Nimrod Society to develop successful pro-hunting public relation programs. Compelling messages and arguments on shared values resonated best with nonhunters. This initiative provides a model for hunters throughout the world to successfully encourage a positive view of hunting in public opinion.

Pro-hunting PR programs in two U.S. states provide a model for how hunters throughout the world can successfully influence public opinion

Public perceptions play a critical role in determining the future of hunting, but a majority of people today have very little knowledge about hunting in general, the role sportsmen and women play in wildlife management and conservation, and the positive economic impact hunters have in countries around the world.

Hunters in Colorado found that out the hard way in the 1990s when a series of anti-hunting ballot initiatives passed in their state. Faced with a public relations campaign being waged against them, hunters decided to strike back with a PR campaign of their own.

The campaign began with extensive research to find out what type of messaging resonated best with nonhunters. Using focus groups and statement testing, researchers discovered that the most compelling arguments involved the positive economic impacts of hunting, including the number of jobs created, and how revenue from hunting and fishing licenses and excise taxes on hunting and shooting gear paid for wildlife management. Most importantly, the research found that the campaign was most effective if it was based on hunters' and non-hunters' shared values—such as concern for wildlife and appreciation of the outdoors.

The result evolved into “Hug A Hunter”—a fun, friendly series of TV and web ads airing on major network channels in prime time that convey a simple, truthful, positive message about hunting. Watch one of these ads here: https://www.youtube.com/watch?time_continue=3&v=2FTuNGX-VvY.



This ongoing PR campaign has transformed the hunting landscape in Colorado. Since it has been running, seven out of ten people in the state say they would vote *against* any new hunting

restrictions or anti-hunting ballot initiatives—a huge change from the 1990s. Shortly afterward, hunters in Michigan succeeded in passing similar legislation in their state. Watch one of the Michigan ads here: https://www.youtube.com/watch?time_continue=4&v=k07g3AZj5Ks



One of the challenges with effective PR campaigns is that they require dedicated, ongoing funding to be effective—"one and done" approaches generally don't work. The Colorado and Michigan efforts are made possible by legislation establishing a state Wildlife Council—complete with a long-term funding mechanism via a hunting license surcharge solely dedicated to funding and producing an ongoing pro-hunting mass media campaign that will run year after year.

PR campaigns like these help the general public understand that funds from hunting programs help conserve forests, support wildlife habitats, and create jobs. Hunting license fees fund conservation for everyone—hikers, birdwatchers, and mountain bikers, not just hunters and anglers—to enjoy. The economic impact of hunting, especially in rural towns and villages, is significant in nearly every country where hunting occurs. This is a story that needs to be told to

the non-hunting public. Currently, many efforts by hunting groups involve “preaching to the choir.” The efforts in Colorado and Michigan provide a blueprint for telling the true story to the people who need to hear it the most—the general public.

The Nimrod Society was formed with the goal of expanding this successful public education program to every state in the U.S. and to countries around the world. The organization has developed a resource kit to help U.S. hunters promote legislation to develop their own pro-hunting PR campaigns. This model can also be adapted for countries interested in establishing ongoing funding sources for similar programs. These pro-hunting PR initiatives are generating a great deal of interest from hunting groups both inside and outside the U.S. Visit <https://nimrodsociety.org/> for details.

Diana Rupp is the Editor in Chief of [Sports Afield](#) magazine, a consultant for the Nimrod Society and the author of four books, including Great African Trophies and 130 Years of Sports Afield. Her hunting adventures have taken her throughout North America and to Africa, Europe, Asia and the South Pacific in pursuit of species as diverse as Cape buffalo, grizzly bear, ibex and wild sheep, but she especially loves hunting elk near her home in northern Colorado.



APHA's President Weighs in on Hunting and Conservation in Africa

by Jason Roussos, President, African Professional Hunters Association

READ TIME 7 MINS

APHA President Jason Roussos stipulates that successful conservation efforts must not be judged by the fate of individual animals but by the species' overall population trends. Trophy hunting should be assessed in the light of demonstrable results on wildlife populations. Roussos criticizes lobby groups and governments from developed nations for making decisions that restrict what Africans can and cannot do with their wildlife. He urges that the debate look past emotions and focus on best practices and conservation outcomes.

Unless you have been to Africa and ventured beyond the well-travelled roads and comfortable accommodations found in many of the continent's great national parks, you will never understand the real reason why Africa's precious wildlife is in such peril. You will never see firsthand what poor rural Africans must deal with to just survive on a day-to-day basis, often in direct conflict and competition with wildlife. You will never understand the persecution that African wildlife is facing at the hands of illegal poachers. But above all, you will never see how much habitat is being destroyed every day to sustain the booming human population.

There is absolutely no doubt that the future of African wildlife is bleak. Habitat loss threatens to destroy all forms of biodiversity, while unselective and indiscriminate illegal poaching adds to it.

Only a coordinated effort that incorporates a diversity of scientifically sound management practices will reap long-term solutions. There is no one “fix-all” strategy to conserving African wildlife. The only way to achieve success is to implement multiple conservation and management practices that work together for one common goal – the continued survival of wildlife and habitat protection.

No matter how distasteful certain practices or techniques may be to some individuals or organizations, if they achieve conservation success then they cannot be shunned. How successful a conservation effort is in an area must be judged not by the survival of individual animals but rather by the species’ overall population trend. If over time some animals are killed, but the overall population of a species in that area remains stable or increases, then that conservation practice must be deemed successful.

Conservation must be viewed as a brick wall where each brick represents a different management technique or practice. Hunting, photographic safaris, game breeding, and zoos that educate visitors about wildlife are all examples of the various “bricks” in the conservation wall. Anytime a brick is removed, it compromises the overall stability of the wall.

Unless both non-consumptive management (where wildlife is not killed) and consumptive management (where wildlife is killed) are utilized side-by-side, conservation will never reach its full potential. Areas such as national parks are set aside for non-consumptive use and are safeguarded from a national level specifically to protect wildlife and wildlife habitat. As the cornerstone of the conservation wall, African national parks play a critical role in conservation. Nonetheless, national parks only cover a fraction of the landmass where wildlife exists in Africa. In fact, in many African countries it is the areas outside these nationally protected lands that harbor more wildlife - not by density, but by total count. In Tanzania, for example, only 7% of the country’s land mass is allocated to National Parks, whereas hunting areas make up 32%, thus harboring a much greater wildlife population.

The countries that have adopted and implemented a multiple-use approach to wildlife management are the ones that have succeeded the best at conserving their wildlife resources. Namibia is a prime example of how a country that utilizes both consumptive and non-consumptive wildlife management has seen its wildlife numbers increase in recent years. Kenya, on the other hand, only utilizes non-consumptive management practices and has seen wildlife numbers outside of protected areas plummet over the same time frame. Globally, the

country that currently manages its wildlife resources in the most successful and scientifically-sound manner is the United States of America, where multiple-use is the fundamental driving force behind that success.

Over the last few years, African nations that utilize multiple-use conservation practices, especially in regard to high profile species like lion and elephant, have been specifically targeted because of their use of trophy hunting as a consumptive management tool. Trophy hunting is one of the many types of consumptive management practices that occurs in a multi-use system. Other consumptive management practices include meat hunting, trapping, and culling. People who hunt for subsistence or for meat are not facing the same backlash that trophy hunters are. Trophy hunters are portrayed as killing for “sport” or for “fun”, and for people who do not fully understand the critical role it plays, this understandably stirs up very strong emotions against the practice. However, what is most relevant when discussing trophy hunting and its role in conservation should be none other than its final outcome on wildlife populations.

In simple terms, trophy hunting is utilized when it is necessary to have a minimal biological impact on the overall wildlife population, while at the same time maximizing the money generated to conserve that species. The only way to achieve this is to selectively harvest only old males, many of which are far past their reproductive prime, while charging top dollar to do so. Meat hunters, on the other hand, do not pay large amounts of money to shoot an animal and are far less selective than trophy hunters when harvesting an animal. The reality is that meat hunters often harvest females as well as younger animals. This is perfectly acceptable in circumstances where a wildlife population needs to be controlled or reduced. Trophy hunting, however, is utilized when dealing with a wildlife population that managers are trying to increase, hence the need to generate large amounts of money for conservation efforts while at the same time only affecting a specie's overall population by a negligible amount.

With all the recent hype surrounding trophy hunting, the most important conservation consideration to discuss has unfortunately been sidelined by a torrent of emotionally charged rhetoric from both sides. That consideration should be the final outcome that trophy hunting has on a population in an area and what happens to that wildlife population and its habitat when trophy hunting is stopped. In 1993, for example, elephant hunting in Ethiopia was prohibited. The tropical rainforests of the Gurafarda region harbored approximately 3,000

elephants of which between 10 and 15 were harvested a year. Within the 10 years following the ban there was no rainforest left in the area, let alone any elephant, as is the case today. This scenario would, unfortunately, be the outcome for most African hunting areas following a total ban on hunting or trophy importation.

Critical to the whole trophy hunting debate is to discuss what alternative management practice would be implemented to replace the conservation and financial void that would arise if trophy hunting was stopped. Only in very rare circumstances would non-consumptive tourism be able to replace the money spent by trophy hunters since most hunting areas cannot compete with National Parks when it comes to accessibility, infrastructure, and wildlife density. As a result, they are far less attractive for photographic tourists. The reality is that following a hunting or trophy importation ban, most hunting areas would be left abandoned with no form of protection or wildlife and habitat management in place. This is an outcome that nobody, hunters or anti-hunters alike, would want.

I would urge everyone who is involved in the trophy hunting debate to look past their initial emotions stirred up by the fact someone is legally and intentionally killing African wildlife, and instead focus on the critical conservation brick that is filled by this practice. If trophy hunting is stopped throughout Africa, wildlife will still survive in national parks and other highly protected areas. However, in the areas outside of these places it would be ravished. The question should be as simple as: "Is that a good result for conservation or not?"

Finally, I would challenge anyone who does not live in rural Africa and does not have to deal with dangerous wildlife on a day-by-day basis to refrain from making decisions that restrict what Africans can and cannot do with their own wildlife. Imagine if the populous of Great Britain, or any other densely populated developed nation, had to deal with man-eating crocodiles in its rivers, hungry lions around its cattle farms, and elephants that harass and trample people while knocking down trees and ravishing farms throughout the countryside. Now imagine on top of all of this, the government being told by foreign nations that they were not allowed to manage, utilize and fully benefit from their wildlife in the ways they deemed fit, not only for the species but also for their citizens. I guarantee the outlook of how to manage these species in those countries would be changed dramatically.

Wildlife is a renewable resource that needs to be properly managed in our increasingly crowded world. If any conservation practice that is proven to work in certain areas is stopped,

then we have all failed at doing our part to protect our planet's wildlife, and another valuable brick has been lost from the conservation wall.

Born and raised in Ethiopia, Jason Roussos graduated with a degree in wildlife biology from Colorado State University in 1999 and is now a full-time Ethiopian professional hunter and safari operator. Roussos also co-founded [The Murulle Foundation](#) that conducts research and conservation in sub-Saharan Africa. After serving as Vice President/Secretary General of the African Professional Hunters Association (APHA), Roussos was recently elected President. APHA represents the top African professional hunters and safari operators. This open letter was also published in [The Daily Maverick](#) on June 9, 2019.



The African Trophy Ban Controversy: Leading Conservation through Science, not Emotion

by Sara Leonard, Congressional Sportsmen's Foundation

READ TIME 4 MINS

Sometimes elected officials respond to pressure from animal-rights groups by introducing unnecessary or poorly conceived legislation directed against hunting or even the possession of hunting trophies.

In an increasingly urbanized and technology-focused world, the public has become more and more detached from nature, and the natural resources that people have traditionally relied upon. Because of this isolation, the concept of conservation is lost and replaced with a misconception that the outdoor world is best left untouched by humans. Of course, this is unrealistic. As a result, some elected officials have found political opportunity in responding to this emotional disconnect with nature by introducing unnecessary and poorly conceived legislation to advocate for their own personal biases that preservation should replace conservation as a management paradigm and with that hunting should be abolished.

The case of the African “Big 5” (elephant, Cape buffalo, lion, white and black rhinoceros, and leopard) trophy ban is a classic example of this misguided approach. In September 2018, then California Governor Jerry Brown vetoed Senate Bill 1487 (the Iconic African Species Protection Act), which would have banned the importation of 11 African species, many of which are legal to hunt, into the state. Legal, regulated hunting of African species has proven to be a successful tool for management and recovery; and this bill would have done nothing to stop poaching or illegal hunting – it would have merely catered to anti-hunting interests to advance the preservationist philosophy.

Prior to the veto, the Congressional Sportsmen’s Foundation (CSF) joined a coalition of sportsmen’s conservation groups in opposing SB 1487 in the California Legislature. This outreach highlighted that revenue generated by licensed, regulated safari hunting is the single most important source of funding for conservation and anti-poaching efforts in Africa. In many Southern and Eastern African countries, this revenue is the primary source of management, conservation, and anti-poaching funds for national wildlife authorities. These hunting programs have been designed by experts to allow a limited, sustainable take, and to generate funds for conservation, anti-poaching, and community incentives.

A similar case was presented back in May 2016, when then New Jersey Governor Chris Christie issued a constitutional veto on Senate Bills 977 and 978, which would have prohibited the import, export, sale, possession, and transport of “Big 5” African species (including parts and taxidermy). While the veto allowed for transport, import, and export of animal parts, it still prohibited keeping those trophies in the state. Actions were taken by the hunting conservation community. CSF sent letters to Gov. Christie urging him to veto the bills; and Conservation Force, a pro-hunting conservation legal services organization, sued the state of New Jersey, successfully arguing that the ban was preempted by the Endangered Species Act (ESA), which voids any state law or regulation that applies to importation and exportation, domestic or foreign, outside of ESA ruling. The legal arguments put forward in the New Jersey case also proved to be important in requesting a veto of SB 1487 in California as it was clear that signing the bill into law would likely put the state in the position of having to spend financial and personnel resources defending itself against solid, opposing legal precedent.

This year, Connecticut was faced with Senate Bill 20 – which would have prohibited the import, sale, and possession of African elephants, lions, leopards, black and white rhinoceros, and

giraffes. CSF worked closely with leaders of the Connecticut Legislative Sportsmen's Caucus to express strong opposition to this bill, which would have detrimental effects on wildlife conservation, hindering anti-poaching efforts, and depriving rural communities of much-needed tourism dollars from hunters. A victory for conservation, this bill failed to pass during the General Assembly's regular sessions and never advanced to the Governor's desk.

Wildlife management should be guided by science – not emotion. This principle has been too central to the successful recovery and conservation of numerous species, and should not be abandoned in favor of knee-jerk emotional responses. In the United States, fish and wildlife agencies are the entities best-equipped to manage wildlife through the use of science (and yes, hunting), and African countries should be afforded the same opportunity to manage their wildlife in keeping with the needs of their communities and unique conservation challenges. CSF will continue to work with true conservation-minded legislators and other partners across the country on preventing emotionally-driven anti-conservation hunting bills from advancing.

For more information on trophy importation bans, visit: www.congressionalsportsmen.org/policies/state/big-5-trophy-importation-bans

Sara Leonard is the Policy & Communications Manager of the [Congressional Sportsmen's Foundation \(CSF\)](http://www.congressionalsportsmen.org). Sara holds a Bachelor's degree in Atmospheric/Oceanic Science and Environmental Studies with a policy specialization from the University of Colorado–Boulder and a Master's degree in Strategic Communication from American University. CSF's mission is to work with Congress, governors and state legislatures to protect and advance hunting, angling, recreational shooting and trapping.

Banner Image: An old solitary buffalo bull, or dagga boy, enjoying a break in the dagga (mud). Photo by the late Don Cowie, courtesy of Peter H. Flack



Are There Species We Shouldn't Hunt?

by Paul McCarney

READ TIME 8 MINS

Paul McCarney's personal exploration of this controversial question is an examination of utilitarian and technical issues, individual moral decision-making, and the emotional element to hunting. His conclusions may not sit well with all readers, but it is worthwhile to explore the gut feelings that might sometimes give us an aversion to pursuing certain species. Even if we are rationally uncomfortable with these feelings.

Among the many things that draw hunters into the field to pursue new species, curiosity is perhaps one of the simplest and most ancient. There is an exciting sense of curiosity that drives hunters to want to continue to experience new landscapes, natural phenomena, and species. While we are certainly driven but such primordial motivations to hunt, we also commonly

express less practical, but equally human, reflections about the many considerations that impact our hunting decisions. Are there species we shouldn't hunt?

Hunting has allowed and forced me to interrogate my own sense of moral decision-making about wildlife. If hunting is defined by more than its utilitarian and technical motivations; if we engage with the complex range of ethical questions and decisions around hunting; and we acknowledge that there is an emotional element to hunting, it is worthwhile to reckon with the gut feelings that might sometimes give us an aversion to pursuing certain species. Even if we are rationally uncomfortable with these feelings.

Should we hunt all species?

I began thinking about this question more deliberately after a recent conversation with a good friend – a non-hunter and someone who cares deeply about wild places and has done a great deal to advocate for the conservation of these places and the wildlife in them.

With this particular friend I have the luxury of being able to debate complex topics productively and meaningfully. As a side note, this is somewhat rare in the days of social media keyboard warriorism, so if you don't have someone like this in your life, find one.

The topic arose out of a discussion about the [British Columbia government's decision to cancel the province's grizzly bear hunt](#) due to public pressure against the hunt, and whether or not this was the correct decision.

My opinion was that we should consider hunting seasons for any species, provided the population can sustain a hunt and we have the public resources to dedicate to manage it effectively.

To my friend, I highlighted the science around grizzly bear hunting, which has not demonstrated that the hunt was unsustainable or mismanaged. Therefore, from my perspective, the decision was likely not the correct one because it was based on the emotional whims of a mostly urban public.

As an ecologist, my friend understood and respected the science. He also lives in British Columbia and spends a great deal of time in backcountry areas that are likely home to grizzly bears. He understands the landscape and the issue through a direct connection to it.

Yet, he still felt the decision to cancel the hunt was acceptable from the perspective of a publicly managed resource. And not just any resource. In fact, he agreed with the decision. He suggested that grizzly bears are a species he doesn't think we should hunt at all.

A question of sustainability?

I take it for granted in this discussion that we should not hunt any species for which there are population or conservation concerns. I suspect it is unlikely that anyone with a semblance of conservation ethic will disagree with me on this point.

The success of conservation initiatives and wildlife management policies across North America provide us with hunting opportunities for a wide range of species. As we continue to grapple with difficult conservation issues, there are of course species we cannot hunt for legal and conservation reasons. In this discussion, I am interested in the considerations that are more difficult to define.

My perspective on whether or not we should consider opening hunting seasons for a particular species has generally always boiled down to the question of sustainability: can we identify sustainable levels of harvest and do we have the resources to effectively manage that harvest? Any other considerations are purely personal and emotional and shouldn't factor in the decision.

But the conversation around grizzly bears forced me to think about this question more deeply. I also wanted to understand if I ever felt this way and if so, under which circumstances.

Which species?

The revelation for me was not that people have feelings against bear hunting. Bear hunting "controversies" crop up in the media with somewhat predictable regularity and bear hunting seems particularly effective at stirring public outrage over hunting. This is not what my friend was expressing.

What was interesting to me was the idea that there might be some species we shouldn't hunt simply because they shouldn't be hunted. Because the inherently emotional qualities embodied by the animal are valid in themselves.

The question is, if there are species we shouldn't hunt, how do we decide?

I don't presume to have an answer to that question. I suspect it is likely different for everyone and depends on the internal criteria we each use to evaluate our hunting decisions. I imagine it comes down to that great tangle of personal experience, individual ethics about what it means to hunt, and the deep cultural contexts we are surrounded by.

Characteristics of off-limits species

What is clear to me is that there are certain species that mobilize the kind of emotions that tend to lead people towards thinking those species shouldn't be hunted.

In many cases, the species that are commonly on this list are predators near the top of their food chains: bears, wolves, lions. In other cases, I think they tend to be species that humans identify with in some way: the deep memory of elephants, the biological familiarity of primates, the familial qualities of whales.



Wolves tend to evoke a great deal of emotion in the public. I like to think I am immune to such emotional responses when thinking about my own hunting motivations, but perhaps not.

Do these species possess some key trait that we associate with an essential morality that makes it a sin on some level to kill them? Is the aversion to killing them more ecological, based on their critical role in maintaining trophic interactions and ecosystem functions? Or is it simply that in the public imagination, these species are commonly represented in such resplendence that they just seem, somehow, off limits?

A personal perspective

On a more personal level, I think I tend to evaluate this question through a mixture of practical and philosophical lenses.

On a practical level, I have always been so motivated by the sheer enjoyment in hunting that I am interested in pursuing any species for which there are hunting opportunities. With regards to particular species, I have always been motivated first and foremost by food – if I'm not going to eat the animal, I'm not as interested in hunting it.

More philosophically, I feel that positioning certain species outside or above consideration for hunting must be, at least in part, based on subjective social values. This kind of [anthropomorphic valuation of wildlife](#) is not only scientifically arbitrary but also ethically questionable in wildlife management.

Therefore, I am wary of considering some species exempt from hunting based on grounds other than considerations of sustainability because I believe our wildlife management decisions should be based on ecology and not emotion.

Further reflections

Having said all of this, I have found there is a positive relationship between the amount that I think about hunting and the number of contradictions I reveal about myself.

I will admit to feeling less intrinsically motivated to hunt certain species. I do not feel drawn to hunt wolves. I have worn coats with wolf fur around the hood and can attest to its warmth and effectiveness in the cold. I feel no ethical quandary in using their fur for these purposes.

My internal hesitation to hunt wolves may itself be a backlash against the same kind of cultural subjectivity I try to avoid when evaluating the morality of hunting certain species.

Predators have a long history of persecution in North America. The policies and programs that led to the near extinction of predators on this continent were designed to serve human needs far and above those of the landscape. These anti-predator programs cultivated some [insidious cultural biases against predators](#) that unfortunately continue to persist today.

So perhaps I feel hesitant to hunt species like wolves as a subconscious resistance to the misguided perceptions and representations about predators that circulate in parts of the hunting community.

It's not that I am opposed to managing predator populations as a resource through sustainable hunting just as we manage prey species. Rather, it may be that my perceptions around hunting certain species will shift alongside my interpretation of certain cultural perceptions.

Conclusions

We could try to identify some logical pattern to the idea that there are species we shouldn't hunt. However, this may be too complicated a task given the wide range of cultures and lifestyles that inform these perspectives.

It may also just be beside the point.

At the end of the day, maybe it's not important to find a logic to the idea that there are species we shouldn't hunt. Maybe these feelings are just an inevitable and shifting part of engaging with deep moral questions around hunting.

Whether, as hunters, we agree with the idea that there are certain species we shouldn't hunt, or whether we even feel that this idea is justified, it matters how we respond to it.

These feelings do exist in the public, and feelings manifest as public opinion. And since public opinion impacts decisions about wildlife management, perhaps the point is simply that we ought to take this phenomenon seriously and treat it with respect.

This is also a personal question. It is a question that we will likely continue to grapple with as a society as we face increasingly complex conservation challenges and is, therefore, a question worth asking ourselves.

I do believe that we should resist the idea that hunting should be removed from the table as a potential management tool for certain species when that idea is based strictly on emotion. When there is public resistance to hunt a certain species and this resistance is based on emotion alone, I believe we should remain committed to the idea of science-based wildlife management and focus on the wider context of the sustainability of a hunt for that species.

We also can't ignore the role of culture and changing cultural norms. As I mentioned above, we might need to re-examine and potentially challenge parts of hunting culture, such as the continued vilification of predators. We should remember that people are inherently emotional beings and working within these key traits of our own species will allow us to make further progress in communication and conservation.

Paul McCarney has a Ph.D in Environmental Studies; his thesis looked at the social and ecological dimensions of wildlife research and management in the Arctic. McCarney lives in Nain, Labrador, where he is creating a marine management and conservation plan for Nunatsiavut called Imappivut. This article was first published in [Landscapes & Letters](#), a space created by McCarney to discuss issues and experiences in hunting and conservation.

Banner Photo: Bears are a highly politicized species when it comes to management. The B.C. government openly acknowledge that much of its decision to end the grizzly bear hunt was based on public emotion and pressure.



Hunt It To Save It

Many think species protection requires the ending of hunting and protection by the government. Neither are true.

by Thomas McIntyre

READ TIME 8 MINS

Many think species protection requires the ending of hunting and protection by the government. Neither are true, says Tom McIntyre. The complex situation around the sage grouse provides the frame of the article, but McIntyre spans the storyline from the tigers of Imperial India, to the elephants of Botswana, to the wolves and grizzlies of the western United States.

It was the last clear, bright day of September, and I went out onto the plains to hunt sage grouse. A brace of the oversized birds makes a limit, but there's still the kicking up of them

among the brush and cactus, and seeing the English cocker run, overjoyed. These are birds to pluck, much too special to skin before eating.

It occurred to me as I hunted that the sage grouse had gone from straightforward upland game to a genuine trophy bird—like the wild turkey or the Eurasian capercaillie. A cockbird mounted with its spiky pinnated tail feathers fanned, wings down, white breast feathers fluffed, and gular sacs expanded (curiously reminiscent of Mae West bundled in white furs at a Hollywood premiere), is a striking, unique addition to a hunter's home.

With that in mind, I e-mailed an old friend who is a guide and outfitter in the grouse's home range, asking if he could recommend anyone, I might recommend to readers to take them hunting. I thought more hunters should get to know the bird, gain an appreciation of it, and take an interest in its well-being as a species.

My friend's somewhat gratuitous reply: "Sorry Tom, but sage grouse have become as rare as hen's teeth, so we don't hunt them anymore. They used to be common, now we're just trying to protect the vestiges of that population." This is from a professional hunting guide, someone who should know that no game species is more orphaned than one nobody hunts anymore.

I realize many sincerely believe the sage grouse to be standing on a precipice, and certainly conscientious efforts at conservation must be, and are being, made. Yet probably much of the energy expended in attempting to get the bird placed among the animals covered by the Endangered Species Act of 1973 is motivated by the desire to give the federal government increased power over the management of millions of acres, both public and private, that the grouse inhabits in almost a dozen Western states, and to take away power from the "yokels" who already live there. And one of the tactics of those wishing to see the bird listed is the claim that this will protect it from hunters, as always, the "usual suspects" in the decline of any species.

The grouse's situation is complex, but the implications of those advocating for ESA status are clear: not hunting an animal is how you save it—and even hunting guides, it seems, can be made to believe this simplistic notion. Add to that the other suggestion, that it takes the central government to preserve it. But how true is that?

Central governments have for years encouraged and/or orchestrated the killing of wildlife on a grand scale, especially predators. Take the British as an example. The cause of the tiger's waning on the subcontinent is most often placed in the hands of pith-helmeted "Bungalow Bills" seated in howdahs on the backs of elephants. Mark Twain, though, writing about his travels in British India in the mid-1890s, noted that "the government's work is quite uniform. . . it about doubles the tiger's average" of killing, each individual instance of man-eating by the species met by the officially sanctioned culling of twice as many tigers—80,000 big cats were destroyed in this fashion from 1875 to 1925 (after ending sport hunting in 1971, India turned some 1,800 remaining tigers into 1,411 after 34 years of "protection" and the expenditure of \$400 million in "conservation" funds).

Touring Britain's East African territories in 1907 as Under Secretary of State for the Colonies, Winston Churchill promised, "Zebra, rhinoceros, buffalo, and other picturesque and fascinating nuisances will be driven from or exterminated within the settled areas, and confined to the ample reserves of uninhabited land." True to Churchill's words, and as just one instance, famed professional hunter, J. A. Hunter, was tasked by the Kenya-colony government with killing 1,000 rhinos to sweep a region clean for a hopeless agricultural scheme.

As President in 1906, the hero-father of American conservation, Theodore Roosevelt, moved to preserve the "finest deer herd in America." The mule deer on Arizona's Kaibab Plateau had fallen to 4,000 with the carrying capacity of the land arbitrarily estimated at 30,000. To protect them, Roosevelt created the Grand Canyon National Game Preserve and banned all deer hunting on it. Even Roosevelt, a lifelong hunter, in this case displayed a distinct lack of faith in the efficacy of hunting as a wildlife management tool. Meanwhile, as livestock overgrazed the plateau, the U.S. Forest Service was killing every predator it could find in the preserve, hundreds of lions and bobcats, a score of wolves, and nearly 7,500 coyotes. Deer numbers exploded to 100,000 by 1924 and then proceeded to die off in the thousands from starvation in the succeeding years. By 1939, the population was 10,000.

The Animal Damage Control Act of 1931 gave the U.S. Fish and Wildlife Service the mandate that helped eliminate the gray wolf from the Lower 48, at taxpayer expense; and now the USFWS has spent hundreds of millions of those same taxpayers' dollars to reintroduce the wolf they were once empowered to destroy, amounting to wildlife management à la "Sybil."

The Act also led to the wholesale killing of other prized big-game animals, such as cougar and black bear.

There is hardly any need to reprise the fate of wildlife in Kenya after its government banned safari hunting in the late 1970s, except to recall the well-known remark that “all great world-historic facts . . . appear, so to speak, twice . . . the first time as tragedy, the second time as farce.” Thus, to the ending by the Botswana government in 2014 of regulated safari hunting on public land in that country, to the detriment of wildlife and the delight of anti-hunters.

In the abstract to a recent peer-reviewed report on Northern Botswana, Joseph Mbaiwa, Professor of Tourism Studies at the Okavango Research Institute at the University of Botswana, writes, “Results indicate that the ban led to a reduction of tourism benefits to local communities such as: income, employment opportunities, social services such as funeral insurance, scholarships, and income required to make provision of housing for needy and elderly . . . Reduced tourism benefits have led to the development of negative attitudes by rural residents towards wildlife conservation and the increase in incidents of poaching in Northern Botswana.”

It is manifest what can be accomplished when hunters, not governments, are the ones who concern themselves with, or if you wish, just follow their selfish interests to, the conservation of a species. Simply look at ducks, turkeys, elk, and sheep and the efforts of non-governmental hunters' organizations such as Ducks Unlimited, the National Wild Turkey Federation, the Rocky Mountain Elk Foundation, and the Wild Sheep Foundation. Markhor are now doing well in Pakistan due almost exclusively to the work, and the passion, of hunters. The Père David's deer exists today because the last survivors of the Chinese species were placed in the Nanyuan Royal Hunting Garden on the outskirts of Beijing, until the Boxer rebellion overran the park in 1901. Luckily, some deer had already been sent to Europe for zoological collections; and later they went to places like Texas and Argentina to be hunted, increasing enough as hunting trophies that they have been reintroduced into their native range.

Still, hunters' best efforts can be thwarted. Even if brakes can be applied to the federal administration, that still leaves state executives to sign orders ending hunting, as New Jersey Governor Philip Murphy did in August, halting the black-bear season on public land. Or ballot initiatives that really began with the outlawing of cougar hunting in California in 1990, and the killing of about 2,500 lions on depredation permits in the state since. Around the country in

the following years, some forty “animal-protection” initiatives were approved by state voters—remember, there is no state in which hunters are not a minority—often because of mawkish, dishonest appeals to the emotions of a non-hunting electorate. Then there is the judiciary.

As expected, Chief Judge Dana L. Christensen of the U.S. District Court of the District of Montana in September returned the grizzly bear in Idaho, Wyoming, and Montana to the Endangered Species list, dismissing over forty years of successful conservation and restoration efforts. According to a Mike Garrity, executive director of the Alliance for the Wild Rockies, grizzlies will “now truly have a chance to recover” and “their habitat will be protected until they are recovered.” “Recovered” as in never, or at least not as long as judges like Christensen sit on the bench.

However this picture ultimately turns out, not many of us here today are likely still to be around to read the credits. But I know turning my back on the sage grouse (or any species we hunt), leaving it to meet its fate alone, is not salvation. Maybe I can’t be sure what salvation is, or if I am able to contribute toward it, but I plan, if I can, to go out after sage grouse again next year with my dog, secure in the knowledge that by sharing its world, despite what anybody may care to tell me, I am ratifying the continuing million-and-a-half-year existence of Meriwether Lewis’s “Cock of the Plains” on the land where it belongs.

Tom McIntyre is a Field Editor at Sports Afield Magazine. He is the author of Augusts in Africa. His next book, Thunder Without Rain, on the African buffalo, will appear next year from Skyhorse Publishing. This article is reprinted from [Sports Afield](#) with the permission of the magazine and the author.

Banner Photo: Sage grouse male display behavior by Vic Schendel



Challenging Mainstream Stereotypes of Hunting

The 'Left Coast' of the United States has many stereotypes, but we can set the hunting one straight.

by Jennifer Wapenski

READ TIME 7 MINS

Misconceptions about hunting – both deserved and undeserved – lead to misunderstandings and stereotypes. Jennifer Wapenski explores a different perspective to the traditional hunting narrative. She shows a logical path toward encouraging outdoor recreationists and sustainable food enthusiasts to investigate new viewpoints thereby reaching an entirely new population of future hunters.

It's another Monday morning in the office. We're exchanging pleasantries over coffee, which soon turns into a debriefing of the weekend's activities. Tales of home improvement projects,

soccer tournaments, and yard work are met with knowing nods and matching stories. When the question comes to me, I freeze and quickly assess the audience. How exactly should I summarize a weekend spent shivering in a duck blind? Will I offend someone? Will I develop a reputation as a Neanderthal? Do I have an opportunity to challenge a stereotype?

Hunting simply isn't part of the cultural fabric in my adopted home of suburban Seattle. Here in the land of sprouted granola and urban chickens, wild game isn't yet considered a legitimate part of the local and sustainable food movement. Instead, misconceptions about hunting – both deserved and undeserved – lead to misunderstandings and stereotypes. As an adult-onset hunter, I hope to challenge the narrative and offer a different perspective on the act of hunting game for my kitchen . . . and perhaps in the process, be part of the future of hunting on the Left Coast.

My own story of getting into hunting

Everyone has their own story of how they got into hunting and when the passion sparked. For me, as someone who *didn't* grow up in a hunting environment, my story is about taking on a deeper respect for the natural world and the animals which inhabit it – including the food I consume.

I grew up in an adventurous and outdoor-oriented family; we often spent our vacations camping, fishing, and hiking. A deep love of nature was instilled in me at a very early age, which continued as I set out into the world on my own.

As I settled into adulthood, I grew more and more interested in local and sustainable food sources. I started a vegetable garden, purchased cow and pig shares from a nearby farm, and raised chickens and ducks for eggs. I gained a great appreciation for the taste and added nutrition that differentiated a ripe backyard apple from a waxy imposter at the grocery store.

When my husband asked if I'd be interested in learning how to hunt ducks with him, I was initially short on enthusiasm. *Ducks are so cute – mine have names! Why would I want to kill them?* Undeterred, he pursued his hunter's education and initial field experiences on his own. Before long, I grew curious and asked to come along. I helped out as the faithful retriever, paddling the canoe out to find downed ducks in the weeds while he marked the spot from his vantage point. We learned to prepare the ducks in amazing recipes that highlighted the

uniqueness of each duck's flavor, depending on the feeding habits and life experiences of that particular individual. We challenged ourselves to use every part of the bird to minimize the waste. Somewhere along this journey, probably just before an icy December sunrise, I fell in love with the idea of hunting birds out in *their* terrain.

Fitting in to the larger picture

Non-hunters frequently assume that all hunters are in it for the bloodlust. Colleagues who know me professionally are usually astonished to hear that I own a gun and use it to kill animals. They expect (not unfairly) that a hunter is all about the thrill of the chase and the triumph of the kill. The reality is, my view – and that of almost every other hunter I know – revolves around a tremendous respect for the animal, not a primal desire to assert dominance over it.

I blame part of this misunderstanding on our modern world of convenience. Don't get me wrong – I love the fact that I can go to the grocery store in the dead of winter and get a fresh tomato when my garden hasn't seen the light of day in three months. This same industrialized food system, however, promotes the idea that meat originates in neat packages of Styrofoam and plastic wrap. This is designed to separate the consumer from the very real, very alive animal that gave its life to become steaks or chops. It's easy, convenient, and politically correct. It's also an illusion.

If eating meat is a transaction that requires the sacrifice of an animal's life, then I want to fully acknowledge the transaction by participating in the process. If you're truly curious about where your food comes from, there's no better way to learn than to enter your food's habitat as a hunter. Watching the earth wake up from the confines of a duck blind can be a deeply fulfilling experience. Studying the daily rituals of the quail offer a greater appreciation for their resilience. For a few hours, you place yourself on equal footing by entering and adapting to *their* world. How better to respect a life than to join it for a time? For me, that creates a deeper level of gratitude and respect than simply selecting a Styrofoam tray in the freezer section.

I won't lie; I cried over the first duck that I ever shot. I still remember that mallard hen and the emotional response I felt as I held her in my hand. She was alive until she wasn't, and that responsibility was squarely on my shoulders. I was central to the process of taking her life.

Despite everything I know about meat and animals and grocery stores, the personal act was deeply emotional for me. But that emotional response yielded a deep respect for that bird, and every other bird that followed. Each trigger pull is conscious and my actions are intentional.

Overcoming barriers and challenging stereotypes

Despite our reputation out here on the Left Coast, I believe there are real opportunities to challenge some of the stereotypes about hunting. We don't have as many people who come from the heritage hunting perspective, but that doesn't make the challenge impossible.

One of the entry barriers to hunting is simply getting someone outdoors – and that's certainly not a problem for us Pacific Northwesterners. We generally love being outside and most of us already own a full suite of outdoor gear designed to protect us from the elements. We're not afraid of rain, mountains, or a little mud (but we are afraid of driving in the snow). We already have a vibrant, active, adventurous community here.

Another barrier is getting someone to truly care about the story behind the food that they consume. Again, here in the Northwest, we've already crossed that threshold. Urban farmers' markets thrive in every neighborhood, allowing consumers to chat with growers about their planting strategies and upcoming crop plans. Diners pay top dollar for a farm-to-table experience while premier chefs tout the seasonality of their menus. We make choices based on sustainability and we want to connect with our food. It's not a big leap to extend that attitude toward sustainable hunting practices.

Much like my own story, I can envision a logical path toward encouraging outdoor recreationists and sustainable food enthusiasts to consider a new viewpoint on hunting animals. If a hike in the woods becomes an opportunity to forage for mushrooms . . . which then becomes an opportunity see a grouse flush . . . which then produces an interest in hunting that grouse . . . then perhaps we can actually reach an entirely new population of future hunters.

It could all start over a Monday morning cup of coffee.

Jennifer Wapenski is a new hunter with a passion for the outdoors, dogs and wildlife. A single day of pheasant hunting got her hooked on upland game; a year later, she had her first gundog and a lot to learn. Wapenski lives in the Pacific Northwest with her husband and two dogs. On any weekend, they might be walking up quail, sitting in a duck blind or fishing for salmon. This article first appeared in

[Endless Migration](#), an on-line series meant to redefine waterfowl hunting and is published here by permission.

Banner Photo: The author training her German longhaired pointer to retrieve. Author's photo



The Yellowstone Bison Range War

As the Old West collides with the New, America's icon, the bison, is caught in the middle

Editorial by Silvio Calabi

READ TIME 12 MINS

The American bison's near-miraculous revival sprang from handfuls of animals in ranches, zoos and national parks. Yellowstone National Park today holds several thousand bison, but neighboring states do not allow them entry for fear of spreading disease to domestic cattle. In response, excess bison are slaughtered—a practice that is being called the “second persecution of the American bison.” Allowing bison to repopulate the West is a complex and challenging issue that involves many stakeholders. African nations such as Botswana and Namibia can show the US how to accomplish this.

American bison probably made up the greatest game herds on post-Ice Age earth. Before 1800, an estimated [50 or 60 million](#) of them populated North America from Mexico into Canada and from Nevada as far east as Pennsylvania and south to the Gulf Coast. But by 1870, their numbers had dropped to roughly 5.5 million and then, after just 20 years of intense, systematic slaughter, only a few hundred remained in the US, sequestered on private ranches and in zoos.

Today the bison has rebounded from that precarious level to about half a million, in Canada and the US. Most are still behind wire, but there are some wild herds in national parks, most notably in “America’s Serengeti,” Yellowstone—the only park in the Lower 48 that still has all the large native species that were there before Europeans arrived. From the park’s [website](#):



In winter, through natural mortality as well as removals, Yellowstone Park’s two bison herds may shrink to about 3,000 animals. Jim Peaco/NPS

“The protection and recovery of bison in Yellowstone is one of the great triumphs of American conservation. In 1902, after years of market hunting and poaching, there were only two dozen bison left in Yellowstone. Over the next hundred years, park employees worked to bring this species back from the brink of extinction. We succeeded, and now face the challenge of helping to manage a healthy, rapidly growing population of bison that sometimes roams beyond our borders onto private land and land managed by other agencies.”

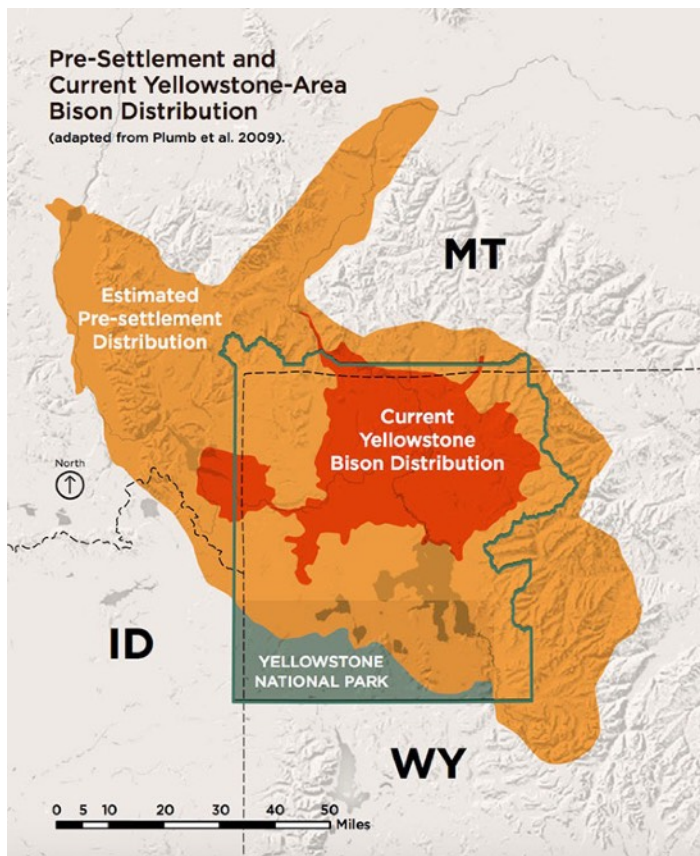
Keep those “other agencies” in mind; also that a wild herd is not necessarily free-ranging.

In August 2018, there were some 4,500 bison, in two herds, in Yellowstone Park, but the numbers fluctuate on an annual cycle of

calving, predation, winter kill and other natural mortality, and “removal.” By late winter, the population may reach a low of 3,000 animals. But even with wolf reintroduction and the grizzly bear’s recovery, Yellowstone’s bison herds grow by some 10% to 17% annually; sustainability is

not a problem. The problem is that, as the National Park Service points out, while the herds are growing, “the park’s borders are not.”

There is a squeeze going on, and this has led to a host of other problems that Michael Finley, park superintendent from 1994 into 2001, called “the toughest Gordian knot I’ve ever known. We are witnessing the second persecution of the American bison, and it is almost as violent and prejudicial as the first.” Stakeholders and observers on every side of this issue have weighed in with op-ed columns, letters to the media, demonstrations and lawsuits.



Mountain Journal

In what would be an inspiring reversal of their awful historic trajectory, bison numbers would be allowed to climb and, as they expanded beyond Yellowstone’s capacity, bison would resume their rightful place among the elk, deer, antelope and other native wildlife of the American West. But no. The three Yellowstone Park states—Idaho, Wyoming and Montana—do not allow bison to roam freely outside the park. Montana has not even allowed the transport of bison from Yellowstone to other conservation areas in the state. When a bison steps outside the park, which is unfenced, under Montana law it transmutes from a wild animal in federal care to livestock regulated by the state.

(Montana is the lead actor in this state’s-rights drama for geographic reasons: As each winter approaches, park bison seek to migrate to lower, greener ground, which typically means moving northward into Montana’s Upper Yellowstone River Valley rather than west into Idaho or east or south to Wyoming.)

In 1995, Montana sued the National Park Service to keep bison off its land, labeling them a “species in need of disease management”; five years later, an Interagency Bison Management

Plan ([IBMP](#)) went into effect. At least eight state, federal and tribal bureaus have input into the plan, which presently mandates the bison “removals” mentioned earlier.

The National Park Service: “Until there is more tolerance for bison outside Yellowstone, the population will be controlled by hunting outside the park and capture near the park boundary. Captured bison are transferred to Native American tribes for slaughter and distribution of meat and hides to their members. . . . We understand that many people are uncomfortable with the practice of capture and slaughter. We are too, but there are few options at this time. Along with our IBMP partners, we’re pursuing alternatives like quarantine and expanded tolerance outside the park that would reduce the need for capture and shipment to slaughter.”

Bison are being contained or slaughtered to protect the health of ranch cattle. Cows are big business in Montana and, in some eyes, bison are a threat to them. Not only can they compete with cattle for graze, some Yellowstone bison carry [brucellosis](#), a contagious disease that can cause cows to abort their first fetuses. (Brucellosis can pass to humans through unpasteurized milk or contact with open wounds—while, for example, dressing out a carcass—but cooking the meat kills the bacteria.) Yellowstone bison were first diagnosed with brucellosis in 1917; the disease is non-native and so, ironically, they probably contracted it from cattle. Beginning in 1934, the US Dept. of Agriculture spent an estimated \$3.5 billion (White et al. 2015, p. 23) to develop vaccines and test programs and to eradicate infected herds, and finally stamped out the disease nationwide—almost.

Today the GYA, Greater Yellowstone Area, is said to be the last pocket of brucellosis in North America. Montana cattle, however, after a reported outlay of \$30 million over 30 years, were certified brucellosis-free in 1985, and the state wants to maintain this certification. (The presence of brucellosis disqualifies a herd from market.) Today, biologists, veterinarians and the Montana Dept. of Livestock agree that there has never been a documented instance of brucellosis transmission from bison to cattle. To some, this says that bison segregation works; to others, it means that ranchers have nothing to fear and bison should be allowed to roam.

As it happens, there is a far greater (in numbers) vector of brucellosis in the region than bison: Among other animals, [elk also carry the disease](#). Every instance in the GYA in which domestic cows caught brucellosis from wildlife reportedly involved elk (White et al. 2015, p. 23). Nevertheless, elk mingle freely with cattle—while bison that tried to leave the park were once hazed back in by rangers on horses or snowmobiles or in helicopters. Bison are the only wildlife



Elk herds are allowed to roam freely throughout the Greater Yellowstone Area and mix with cattle, even though they too carry brucellosis. National Park Service

in the GYA that are not allowed to migrate. The hazing has stopped, but animals that are excess to the park's capacity are captured for slaughter or killed by Native American hunters or the small handful of others who win the annual lottery for tags. (In 2015, Montana awarded 72 bison tags to 10,424 applicants; in 2004, the first year of hunting, 10 of 8,373 applicants were issued bison permits.)

Hunting is banned inside Yellowstone, and this sets up another disagreeable front in the Bison War: what occurs just outside the park, where at least some bison-tag winners set up firing lines that are said to be more butchery than fair-chase. In a recent [interview](#) with *Mountain Journal*, Cam Sholly, the new superintendent of Yellowstone Park, asked, "Are we really calling that a hunt?"

Last fall, rangers culled 460 Yellowstone bison. This year, the IBMP calls for taking off 600 to 900 animals. By the end of 2019, some 12,000 Yellowstone bison will have been killed this way since the 1980s, the great majority simply captured and slaughtered—at enormous expense and probably needlessly. Meanwhile, especially in nearby Wyoming, elk not only range freely, they also have been supported (for more than a century) by winter feeding stations that keep their numbers artificially high. These concentrations of elk are hothouses for brucellosis transmission and perhaps soon for CWD, chronic wasting disease, but elk mean significant

income for ranchers with hunting leases as well as for outfitters and guides. They are also a major draw for visitors to the National Elk Refuge in nearby Jackson Hole (established in 1912) and many other wildlife viewing areas.

This fall, however, Montana apparently will permit the Park Service to truck 55 bison to the Fort Peck Indian Reservation in the northeastern part of the state; these “[most expensive bison on earth](#)” will be bulls that have been tested and held in quarantine. (To diagnose brucellosis definitively, an animal has to be killed, but blood sampling can indicate infection. Furthermore, while bulls may carry the bacteria, they do not leave behind the “birthing materials” that are the primary sources of infection, nor do they infect females—bison or cattle—during breeding.) And next winter park rangers expect to sequester another “cohort” of bison for observation, in hopes of eventually moving them to safety too. This quarantine program adds yet more cost to the millions spent on capture and slaughter (which bison advocates say could have been used to secure more land for the animals), but it is a small ray of hope.

Picturesque herds of bison roaming freely may be an attractive prospect to the millions of visitors who flood into the GYA every year, but—just as with elephants in parts of Africa—the idea spooks some members of rural communities. Bison can compete with cattle for grass; and hundreds or thousands of wild one-ton ungulates pose at least potential risks to property and human safety. There are also less specific but deeper fears among some long-settled residents, that they are becoming victims of a sort of gentrification, Western-style. Newcomers from urban areas are altering the demographics and politics of the region. At the same time, “re-wilding” initiatives ranging from the [Buffalo Commons](#) of 1987 to, currently, the [American Prairie Reserve](#) seem to threaten ranching by seeking to replace livestock with wildlife. (Signs proclaim “Save the Cowboy, Stop American Prairie Reserve.”) To these people, the bison is a symbol of their own passing; keeping the animals cooped up buys them time.

As well, some rural residents of the GYA view the spread of grizzly bears and wolves, and the restrictions on hunting them, as examples of the federal government favoring wildlife—predators of their livestock, at that—over people. Free-ranging bison, then, appear to be a further form of “land grab,” one that will put even more pressure on themselves, their families and their livelihoods.



Shawn Regan/PERC

As in Botswana and Namibia with their elephants, the way forward for bison must first acknowledge the people, including Native Americans, who will have to live with them. Also as in southern Africa, “if it pays, it may be allowed to stay,” which would call for both consumptive (hunting) and non-consumptive (viewing) uses of bison. If ranchers and others can be compensated, quickly and fairly, for losses due to bison, and if they can share in bison-hunting revenues as they do with elk, a good portion of their objections to bison might evaporate. A fair-chase bison-hunting sector would have to be set up, with all of the appropriate regulatory, guiding, off-take and fee structures, to provide the twin benefits of income and bison population management. Fiscally speaking, such a comprehensive program could not only erase the expense of bison capture, slaughter, quarantine and transport, but also bring new revenue into the GYA.

Brucellosis fears could be addressed by creating bison corridors and tolerance zones outside the park and expanding the quarantine program until all parties are assured that bison are no threat to cattle. New vaccines and delivery systems could help wipe out the problem too. According to Park Superintendent Sholly, the IBMP is re-evaluating and re-writing its bison plan, and new thinking appears to be creeping in. Finally, over time, as tolerance for free-ranging bison grows, management and ownership of the animals should shift from the federal government to the regional community.

Allowing bison to expand beyond Yellowstone Park will satisfy their instinct to migrate and safeguard the social dynamics and genetics of the herds. It will also help complete the restoration of the Western ecosystem. (Bison now occupy less than [1% of their historical range](#), which makes it impossible for the species to fulfill its ecological functions.) It will also halt the annual slaughter, a bad conservation practice that wastes valuable animals as well as money, time and other resources, and attracts bad publicity. (Although perhaps not enough bad publicity; American animal-rights activists seem to be more interested in telling African nations what to do with their elephants and lions than sticking up for their own bison.)



Bison grazing along Rose Creek, in Yellowstone Park's Lamar Valley—a sight that could someday become common throughout the American West. Neal Herbert/NPS

Altogether, such a program will also reduce pressure upon Yellowstone Park itself, which cannot exist simply as an isolated island of wilderness and was never meant to be a bison ranch.

Since 2012, the first Saturday in November has been designated National Bison Day in the US, to honor the ecological, cultural, historic and economic importance of the beast. On May 9, 2016, President Obama signed the National Bison Legacy Act into law, officially making the American bison the national mammal of the United States. And 144 years before that, on March 1, 1872, at the stroke of President Ulysses S. Grant's pen, Yellowstone became the first national park in the US (and possibly the world).

Are there two more celebrated icons of wild America together anywhere in one place? Yet one of them—the epitome of what biologists call “charismatic megafauna,” the one that was very nearly wiped out a century and a half ago—is being treated abominably, again. New conservation models are sweeping the world, and with success they rapidly become established. Despite initial howls of protest from visitors, over time Yellowstone Park has benefited from many of them, from catch-and-release fishing to advances in bear management. A sweeping change in how bison are treated could benefit not only the park but also the entire Greater Yellowstone region and, by extension, the nation.

Silvio Calabi is Co-Editor of CFL. He is a retired magazine publisher and well-traveled hunter and angler who lives on the coast of Maine and in the mountains of Colorado.

Banner photo: Bison cows and calves in Yellowstone Park. American Bison were brought back from the edge of extinction only to face new threats today. Neal Herbert/NPS

Further reading:

[Yellowstone Bison: Conserving an American Icon in Modern Society](#)

[Bison Management: Yellowstone National Park](#)

[Mountain Journal: Cam Sholly's Agenda for Safeguarding Yellowstone](#)

[Mountain Journal: The Killing Fields Await Yellowstone Bison Once Again in Montana](#)

[Mountain Journal: Bison: Still Not Back From the Brink](#)

[Mountain Journal: What Can Greater Yellowstone Learn From Africa?](#)

[USDA/APHIS: Brucellosis and Yellowstone Bison](#)

[National Geographic: How Ranching and Hunting Shape Protections for Bison and Elk](#)

[National Parks Traveler: Yellowstone Bison, America's National Mammal, Stigmatized in Montana](#)

[Yellowstone Insider: Montana May Acquire 583 Acre Corridor for Yellowstone Elk, Other Wildlife](#)

[PERC: Where The Buffalo Roam—Rewilding the American Serengeti](#)

[The National Academies Press: Revisiting Brucellosis in the Greater Yellowstone Area](#)



Is Field-to-Fork a Viable Alternative to Farm-to-Table

by Charles S Evans

READ TIME 8 MINS

The [Field-to-Fork project](#) helps people who love the outdoors or natural food to take ownership of the meat they eat by harvesting it through hunting. Field-to-Fork spread quickly through both hunting and general media outlets; it gives those who are curious about hunting a sound perspective on this primal activity.

Don't misconstrue the title, I am not claiming there is anything unacceptable about farm-to-table restaurants, I am merely suggesting what may be a more palatable alternative for some individuals. While I enjoy the occasional trip to Heirloom Café to sit down in front of a freshly

prepared burger that came from a sustainably-managed farm a few miles away in Watkinsville, Georgia; I much prefer the *Field to Fork* method, hunting.

Hunting is one of the most primal activities we have left and has evolved with humans for many reasons, but a central theme is procurement of food. This theme aligns perfectly with the large cultural shift that's in progress in many areas around the world, a shift towards more food-consciousness societies. In the United States, organic is by far the fastest growing segment of the food industry, the grass-fed beef sector has increased exponentially, health-focused supermarket chains are gaining unprecedented popularity, and farm-to-table restaurants have become the place to be. As such, there is a large group of people that want a deeper understanding of where their food comes from and they prefer it to be sourced locally.

Hank Forester, Hunting Heritage Programs Manager at the [Quality Deer Management Association](#), and I both fall into this group. Whenever possible, we prefer to taking ownership of the protein we ingest, which can really only be had by harvesting it ourselves.

Hunters have been doing this for thousands of years, but with the urbanization of society the traditional pathways of parents bringing their children into the fold have fallen by the wayside. We have started to notice incredible demand from adults that want to learn how to hunt for food, but do not know where to start. In 2016, we decided to take matters into our own hands in Athens, Georgia to provide these hunting-curious individuals a helping hand into what can be an extremely intimidating activity to a newcomer. We did a little research, based our program off of an example conducted in Kentucky, and enlisted some partners ([Georgia Wildlife Federation](#), [Quality Deer Management Association](#), [National Wild Turkey Federation](#), and [Georgia Department of Natural Resources](#)). The end result was a program called [Field to Fork](#) intended to recruit individuals that want to take ownership of their protein source and show them how to obtain some of the healthiest red meat in existence via hunting.

The plan was simple, we were going to go to the Athens Farmers Market to find people that cared about their food and teach them how to hunt. Given that fair-chase venison is the original free-range, additive-free meat, and comes from an animal that lived life free of animal welfare concerns, we decided it pretty much sells itself so we started there. We offered samples from an impressive spread of venison sausage, sliced tenderloin with chimichurri sauce, jerky, and a hand out entitled "Why should you hunt deer?"

The reception we received was overwhelming, everyone was curious, most tried venison, and quite a few signed up to go hunting with us. In a matter of six hours we reached program capacity with a substantial waiting list.

We took all of these individuals through the entire process including training, hunting, and how to handle the animal after the harvest. The formal training consisted of curriculum covering how hunting supports conservation, deer biology as it relates to hunting strategy, and crossbow instruction. The training sessions prepared participants for a weekend hunt where we paired them with mentors and sent them afield.

Food was a central theme throughout *Field to Fork* with wild game meals provided during the trainings and it culminating with what was perhaps my favorite part of the program, the culinary social. This social brought participants, volunteers, and partners together to share a venison dinner prepared from deer harvested during the program. There were some excellent hunting stories told and everyone provided input on their experiences. A common response from participants when asked what they enjoyed about hunting was “the meditative component stemming from spending time in the woods.” After one participant told the story of her first harvest she stated “That was just the mechanics of the experience, but there was an overwhelming feeling that something that was missing in my life had been fulfilled, I felt like I was finally a human being.” I could go on with the quotes, but my main point is that hearing all of these stories was equally rewarding for me, as it was inspiring to see that there was such excitement and genuine interest in hunting in this diverse group.

Fast forward a few years and *Field to Fork* just finished up its third year in Athens, expanded into eight new states, and reached people from all walks of life. Participants have ranged in age from 18 to 70 and come from various disciplines including professors, organic farmers, construction workers, nutritionists, engineers, and chefs just to name a few. All of these people were brought together by their desire to further their connection with nature and where their food comes from. The direct impact is clear, eighty percent of the participants in the Athens program hunt again within the first year, but the indirect impact, albeit a little more abstract, has been the most impressive to me.

There is something about the authenticity of the *Field to Fork* message that has made it catch on like wildfire through hunting and mainstream media outlets. The program was even [featured on the front page](#) of *The Wall Street Journal* and made an appearance across the pond

in *The Times UK*. With the help of this exposure, *Field to Fork* is beginning to reshape the way the traditional hunting community thinks about new audiences and likely has a wide-reaching ripple effect within society as a whole.

Let's start with what we are seeing in within the hunting community and industry. Local hunters have volunteered their time to make *Field to Fork* possible by serving as mentors for the participants. Everyone that has volunteered agreed that their experiences are extremely rewarding and many have commented that it changed their outlook on who might become just as avid about hunting as they are.

Watch QDMA's Field to Fork video at <https://youtu.be/iS-dSzQCKl0>



David Kidd, on serving as a mentor last year: "I think this was the best season I've ever had, and I didn't even harvest a deer!" We see similar shifts in attitudes as hunters become involved in or read about *Field to Fork*. Perhaps the most telling evolution is that the hunting industry is beginning to buy in. Earlier this year, the [National Shooting Sports Foundation](#) provided funding to expand the *Field to Fork* model to help create a more inclusive environment within the hunting community.

Society as a whole seems to have been impacted through publication of these efforts, but there is also a ripple effect closer to home within the food-conscious community. Program participants have shared their experiences within their social groups and professional circles. We have numerous examples of this, but I would just like to share a couple.

Edwin Pierre Louis is a graduate student at the University of Georgia and participated in the program last year. He harvested his first deer with a crossbow, proceeded to purchase a rifle, harvested four more deer, took three new people hunting with him, and shared venison with all of his lab mates, all within his first deer season! Brandon White is a racecar engineer who went through the program in the same cohort as Edwin. Brandon also got hooked, purchased his own equipment, and harvested three deer! He has two small children who he plans to introduce to hunting once they're older and he consistently talks about how rewarding it is to put all-natural protein on his family's table.

Edwin and Brandon both came back to help with *Field to Fork* as mentors this year. You may be thinking, "those seem like outliers or extreme examples." However, we have many stories similar to those above when dealing with adults getting into hunting for the first time. We recently further surveyed a few past participants and realized that the venison harvested through *Field to Fork* has been shared with hundreds of non-hunters. While it's hard to quantify the effect these people are having on their communities I think it is safe to say that through the sharing of their experiences and harvest, *Field to Fork* graduates are having a substantial positive impact on the way hunting is viewed within their circles and likely generating interest in hunting among their peers.

There is a reason I have chosen a career path surrounding hunting. I hike, kayak, and camp, but those are all just passive interaction with nature whereas hunting provides a more intimate experience, a unique chance to truly interact with our natural world. Field to Fork and programs with similar messaging provide us with an opportunity to ensure that people from all different backgrounds have the opportunity to experience that unique interaction. Hunting is an activity for anyone who loves the outdoors or has a passion for natural food; an activity that transcends societal, political, and religious boundaries allowing participants to form a deeper connection with each other and their surroundings.

Charles S. Evans earned his Bachelor's and Master's degrees in wildlife biology from the University of Georgia and now works for the Georgia Wildlife Federation as the state's R3 Initiative Coordinator.

His position—which is also supported by Georgia Dept. of Natural Resources, Quality Deer Management Association, National Wild Turkey Federation and Safari Club International—was created to increase hunting participation and societal acceptance of hunting in Georgia.

Banner photo: A new hunter and her mentor after a successful harvest. Credit: Quality Deer Management Association



Seasonal Wild Harvest

Stewed Venison Ossobuco with Tomatoes & Frascatelli

by Rachel Owen & Wade Truong

READ TIME 5 MINS

Rachel Owen and Wade Truong from [Elevated Wild](#) hunt, fish and forage in Virginia during the ebb and flow of seasons. This time, they describe how to turn sinewy shank meat into an amazingly tender and flavorful creation with distinct Italian roots, but applicable to game from wherever you are hunting.

In the life of a hunter, angler and forager, every month, every season, has its magical rhythm and movement.

April is waiting for the dogwood to bloom (*Cornus florida*, the flowering dogwood native to eastern North America and northern Mexico). The snowy-white blooms herald the arrival of the massive spawning migration of shad up the Rappahannock River. The shad, (*Alosa sapidissima*) are harbingers of spring- historically, their arrival broke the long, cold fast of winter and provided ample (but bony) food for early colonists, George Washington included. We waded out into the still cold, fast flowing water and land fish after fish, osprey wheeling overhead, participants in an ancient annual ebb and flow.



By late May, the weeds in the creeks that feed the mighty Potomac start growing, and fast. Snakehead season has begun. *Channa argus*, the Northern Snakehead, is a non-native fish species here that makes for explosive top water fishing and excellent eating. We'll spend our summer sitting in tidal waters stilled by grass, the heavy humid silence punctuated by the occasional violent strike of a fish.

Come early fall, and as the fields and foliage start to take on their golden hue, we are busier than we've been all year practicing with our bows and sighting in guns. By October, while our neighbors are carving pumpkins, we're carving up a deer in the backyard. The post-holiday depression in January never comes for us- we're too busy watching for ducks in the grey marsh dawn.

And so, each meal that we put together from our wild bounty pulls from this annual ebb and flow. As one pursuit comes into focus, another fades. To be able to assemble a dish that brings them together is a real joy.

In the following recipe, August's canned tomatoes bring a bright summery pop to December's dark, luscious deer shanks. In one bite, you experience two seasons.

We use white-tailed deer shank in this recipe, but you can replace the white-tailed deer with any other ungulate species you happened to harvest.

The shanks are cross-cut into what is called *ossobuco* (or *osso buco*—Italian for "bone with a hole"—from *osso* "bone" and *buco* "hole", the latter a reference to the marrow hole at the center of the cross-cut shank). *Ossobuco* is a specialty of Northern Italy's Lombard cuisine.

Shanks are great any way you cut them—pun intended! We cut ours with a Sawzall, or you can use an oscillating tool with a saw blade. You can do it by hand with a bone saw too. Whatever method you choose, make sure you thoroughly wipe down the meat before packing or cooking, otherwise you'll find bone fragments on your plate later.

Frascatelli, a free-form homemade pasta, is incredibly easy to make. This typical pasta is an ancient peasant staple from the countryside of Lazio, Umbria and Marche in Italy. It gets its name from the word *frasca*, either a twig—typically laurel—used to sprinkle water onto the flour; or a three-pronged stick, used to mix the dough. The variety in size and shape of the pasta lends the final product an interesting texture. You don't need any special equipment to pull it off, either. Just a bowl, some semolina, and a squeeze bottle.

Venison Ossobuco with Tomatoes and Frascatelli

1 venison shank, cross cut into 2-2.5 inch (5-6.5 cm) thick pieces

1 pint (500 milliliters) canned tomatoes

1 medium onion, diced fine

2 cups (500 milliliters) white wine

¼ cup (60 milliliters) duck fat

1 teaspoon basil, dried

Salt & black pepper to taste

Season shank with heavily with salt, wrap and refrigerate overnight. When ready to cook, rinse off excess salt, pat dry and season with black pepper.

In a large pan heated to medium high heat, add oil and brown both sides of the shank, for about 2 minutes on each side. Remove from pan, and set aside.

Adjust heat to medium, add in ¼ cup duck fat and onions. Cook until fragrant and tender, about 5 minutes. Add tomatoes and basil, stirring often, and allow to boil down to a loose paste, 5-8 minutes. Pour in white wine and reduce until liquid is just below the tomatoes and onions, about 5 minutes. *(Note: if you don't want to use the sous vide method, try braising: after reducing wine, add in the shanks and top off with stock, reduce to low simmer and cook for 4-6 hours until tender. Once tender remove shanks and reduce liquid to desired thickness before serving.)*

Place *ossobuco* in large vacuum sealer bag and add the tomato-onion-wine concoction. Seal and place in *sous vide* water bath. Set the *sous vide*⁴ device at 176° Fahrenheit (80° Celsius).

Cook for 24 hours. When done, remove from bag and serve over *frascatelli* or other small pasta.

⁴ *Sous-vide* (French for 'under vacuum') technique is a method of cooking in which food is placed in a plastic pouch or a glass jar, with all the air removed, and cooked in a water bath at an accurately regulated low temperature. For the best sous-vide devices check on Google or see various devices at <https://sousvideguy.com/best-sous-vide-machines/>

Frascatelli:

2 cups semolina flour

Water

Pour 1 cup of semolina into a wide pan or bowl. Using a squeeze bottle, direct a very thin line of water onto the semolina in a tight zigzag pattern. The flour will clump up where the water hits it. Use a chopstick or the handle of a wooden spoon to break up the clumps of *frascatelli*. Use a slotted spoon to remove *frascatelli* from the semolina, or pour the whole thing through a coarse strainer (with a bowl underneath to catch and reserve the semolina). Repeat until you are out of dry semolina. Lay the pasta out on a dry cutting board or sheet pan while you work.

Boil heavily salted water and cook *frascatelli* until they float, 5-10 minutes, strain out and add a little olive oil to prevent sticking.

Wade Truong is a self-taught chef from Virginia, avid fisherman and late onset hunter; his partner Rachel Owen considers herself a Virginia native and says that she didn't grow up outdoors, the outdoors grew on her. Both hunt, fish, and forage together with their black Lab Tater Tot. Wade and Rachel love cooking for friends, and exploring new ingredients and flavors. Explore all their recipes, adventures, and how-to guides at <https://elevatedwild.com/>, follow them on [Facebook](#), Twitter [@elevated_wild](#) or Instagram <https://www.instagram.com/elevatedwild/>.



Remarks on the Opening of Squirrel Season in Virginia

A hunter's awakenings

by Emily George

READ TIME 3 MINS

Stalking squirrels in the woods is the ideal way to introduce the inexperienced to the outdoors and hunting; it's also an underrated challenge for seasoned hunters. This foundational activity has all the ingredients that make a wise hunter, and a brace of squirrels provide delicious fare for your table.

Squirrel hunting should be the first activity to pursue when introducing youth or the inexperienced to the outdoors and hunting. It's engaging, it's educational, and it's definitely stress-relieving. Nothing beats listening to the wind whirl through the tree tops of the forest while looking for a bushy tail on a late-afternoon hunt.

Squirrel hunting (in this case Eastern Gray Squirrel - *Sciurus carolinensis*) is active because it requires walking, listening, and stalking squirrels in their habitat. They are abundant and move

quickly. When they spot you, they're gone. You must be quiet and camouflaged when trying to sneak-up on a squirrel. They move a lot, which means you'll likely have to. And when it's time to shoot, they don't pause for long. You need to pull the trigger as soon as you aim the gun at your target.

If you've never been hunting, then the deer stand is probably not the best place to start. Squirrel hunting will probably not be attractive to the modern hunter because it's not hunting for a trophy class buck or a banded pintail, but it is the foundational activity that makes a wise hunter. We need wise, experienced hunters who have made the woods their second home. Hunting squirrels requires a lot of walking, stalking, patience, persistence, determination, and eagerness to learn and understand the woods. All of these combined is what makes a great overall hunter. It creates a skilled woodsman.

All of these components are vital for hunting any type of wild game, from ducks to deer and bear. Squirrel hunting ultimately teaches marksmanship, woodsmanship, firearm safety, hunting ethics, and how to clean and prepare game.

Squirrel hunting can be tough, which is what makes it fun. We all need to be challenged– that is what makes hunting what it is. Squirrels can easily spot you, and they're gone as soon as they see you. It's important to move quietly through the woods while looking for them.

Know where to look for them before going into the woods. During the spring, they may be higher in the trees feeding on buds. During the fall, they're usually found near mast-producing oaks scrounging for winter forage.

For a more challenging hunt, try hunting fox squirrels in the mountains. They're wilier, smarter, bigger, and are found on the ground more frequently than in trees.

When compared to other types of hunting like waterfowl or big game, squirrels are relatively more affordable. It doesn't require much equipment like tree-stands or a trail camera, or heavy, mandatory hunting clothing like waders, which can get pricey. Squirrel hunting simply requires lightweight camouflage and a small gun like a varmint rifle such as a .22, which means cheaper ammunition and little equipment expenses.

Despite the presumption of eating squirrel, this small game makes delicious fare and they are simple to skin and clean. Squirrel casserole with stuffing and sautéed vegetables is my personal

favorite. But the list is endless. And, you don't need to reach a harvest limit of squirrels to be able to have enough meat for a meal. Get outdoors, take someone who has never been, and get after some squirrels this season. It's different than hunting deer. It's a breath of fresh air, literally.

Editor's Note: Here are two squirrel recipes from Wade Truong and Rachel Owen's [Elevated Wild](#) website. The warm and restorative [Vietnamese chao soup](#), using squirrel instead of the traditional chicken, will surprise your friends; also the [verjus & sumac squirrel](#) (which is easier to prepare than it sounds). To learn more about squirrel hunting: [Squirrel Hunting Myths and Facts](#) and [5 Reasons Why You Should Be Squirrel Hunting](#) – and then get out into the woods!

Banner Photo: Eastern Gray Squirrel (Sciurus carolinensis) Eating. Courtesy Virginia Dept. of Game and Inland Fisheries

This article was published on June 8 by [ShoreDailyNews.com](#) (provided by the Virginia Dept. of Game and Inland Fisheries). Republished with permission



The Elephant in the Room

by Matthew Lewis

READ TIME 6 MINS

African elephant extinction is not imminent, says Matthew Lewis. What is imminent are more and more African nations struggling to deal with too many elephants competing with too many people for too little space. And this may be the Elephant In The Room that no one is talking about.

Few species are as iconic as the African elephant, the world's largest terrestrial mammal. With long lifespans, high intelligence, and complex social structures, elephants evoke powerful emotions in people. Long pursued for their ivory, elephants have also been increasingly exploited in recent years by groups that rely on them for fundraising.

We are subjected almost daily to emotive fundraising appeals telling us that African elephants are on the edge of extinction. One group, calling itself a science-based conservation

organization, still fundraises on a claim that 96 elephants are killed every day for their ivory—a staggering 35,000 elephants annually. This claim has been made for at least seven or eight years, despite peer-reviewed scientific evidence showing a continual decline in the rate of elephant poaching since 2012.

Data from CITES [MIKE](#) (Monitoring the Illegal Killing of Elephants) and a new study published in the journal [Nature](#) clearly show that elephant poaching peaked in 2011 and has fallen steadily since, returning to the lowest levels in a decade, well before the “elephant poaching crisis” became daily news. Despite the facts, some exploitative groups still claim that poaching is pushing elephants to the brink of imminent extinction, which they link directly to their fundraising pages.

The African elephant is categorized as Vulnerable on IUCN's [Red List of Threatened Species](#), not Endangered, and certainly not Critically Endangered. Species listed as Vulnerable are defined by IUCN as “likely to become endangered unless the circumstances that are threatening its survival and reproduction improve. Vulnerability is mainly caused by habitat loss or destruction of the species home.” Note that this definition does not mention imminent extinction, nor does it mention poaching.

The [IUCN African Elephant Specialist Group](#) (AfESG) maintains and analyzes the African Elephant Database (AED). The AED is the largest repository of data for any species on earth, and for more than 25 years it has served as the clearinghouse for elephant population data.

In 2016, the AfESG released its [African Elephant Status Report 2016](#), the first comprehensive update on the status of African elephants since 2007. The ever-pessimistic media rushed forth to misrepresent the findings of the 2016 status report. Most led with headlines like “only 415,000 African elephants remain.” Not only is this claim untrue, it's also unscientific, yet many groups claiming to be science-based repeated it as fact.

The report says:

“The estimated number of elephants in areas surveyed in the last ten years in Africa is 415,428 ± 20,100 at the time of the last survey for each area. There may be an additional 117,127 to 135,384 elephants in areas not systematically surveyed. Together, this...is 62% of the

estimated known and possible elephant range. There remains an additional 38% of range for which no elephant population estimates are available...”

Nowhere does the report say, “only 415,000 elephants remain.” The range of $415,428 \pm 20,100$ in recently surveyed areas means that 395,328 to 435,528 elephants exist at a minimum in those areas. When we add this to the additional 117,127 to 135,384 elephants estimated to exist in areas that have not been recently surveyed, we arrive at a minimum of 512,455 elephants and a possible total of 570,912. But keep in mind that only 62% of the African elephant range has any estimate at all. A full 38% of the range has **NEVER** been surveyed.

To be sure, Africa has lost thousands of elephants to poachers in recent years. We can’t pretend that poaching hasn’t had a severe impact on elephants. The AfESG estimates that in the period between the 2007 and 2016 status reports, the overall population declined by approximately 118,000 elephants. That is certainly a cause for concern and reflects the severity of the poaching surge that peaked in 2011, but it did not put the species on the brink of extinction.

The truth is that over half a million African elephants still roam the continent, and they are not headed for extinction anytime soon. The majority of these elephants are found in secure populations in southern Africa, which have been mostly unaffected by poaching. Around 75% of the elephants in southern Africa are found within the vast Kavango-Zambezi Transfrontier Conservation Area (KAZA)—an area larger than the state of California. KAZA links a secured habitat network of national parks, communal conservancies and hunting concessions across five nations in southern Africa.

Countries that have embraced sustainable use have also seen the largest growth in elephant numbers. While it has experienced some localized poaching, Zimbabwe still houses a very secure population of over 80,000 elephants, which is far more than its ecologists estimate the habitat can support. Namibia’s elephant population has grown by 150% since 2006, thanks in part to solid anti-poaching protection. Botswana is home to the single largest population of African elephants of around 150,000 and has struggled to manage the impact of a high elephant density on people and habitat.

Indeed, many African elephant range states are now becoming victims of their own conservation success. In the Samburu-Laikipia MIKE monitoring site of northern Kenya, the

rate of elephant poaching has declined to its lowest level in over a decade, and the population has rebounded, growing nearly 13% over the past five years. As a result, human-elephant conflict has escalated, and while elephant poaching has declined, the rate of retaliatory killing due to conflict has increased. Thus, the proportion of illegally killed elephants (PIKE) remains high, even while poaching has gone down.

As the Nigerian author Chimamanda Ngozie-Adichie has famously said, there's a danger in having only a single story. For years now many conservation organizations have made the "elephant poaching crisis" their single fundraising story. But now that poaching rates have plummeted, what will they do? Will they now shift focus to the serious threats of habitat loss and fragmentation, human-elephant conflict, infrastructure development, climate change and increasing human population? It may be harder to motivate donors to support interventions countering these threats, but they surely pose a serious threat to elephants and other African wildlife if left unaddressed.

Human-elephant conflict holds the potential to roll back decades of conservation success in a single horrific night of terror when elephants raid crops, destroy houses and kill people. Those critics who are so quick to condemn Botswana for reversing its hunting ban would do well to walk a mile in the shoes of the people of Chobe and Ngamiland who are fed up with burying the victims of human-elephant conflict and seeing their crops destroyed year after year. While hunting may not offer a magic bullet solution to these problems, it's abundantly clear that during the five years that hunting was banned not a single viable alternative solution was proposed or implemented, and people's attitudes toward wildlife are at rock bottom.

The threat of poaching can never be ignored. The moment we become complacent the criminal syndicates will take the opportunity to exploit wildlife for financial gain. But our response must be commensurate with the threat. For far too long we have paid short shrift to human-elephant conflict mitigation measures at the expense of throwing millions of dollars into a "war" on poaching that too often viewed local people as part of the problem rather than part of the solution.

African elephant extinction is not imminent. What is imminent are more and more examples of African nations struggling to deal with too many elephants competing with too many people for too little space. And this may be the elephant in the room that no one is talking about.

Matthew Lewis is a wildlife biologist with 25 years' experience in conservation issues in North America, Asia and Africa. Originally from Missouri, he now lives in Nairobi, Kenya, and works on wildlife conservation across Africa. The [original version](#) of this article was published in 2017; the author has updated it to reflect the present situation.

Banner Photo: Elephant Bull © Paul Stones Safaris Africa



A Case for Legal Ivory Trade

'Ban all ivory trade, and no more deaths of these intelligent peaceful creatures due to poaching!'

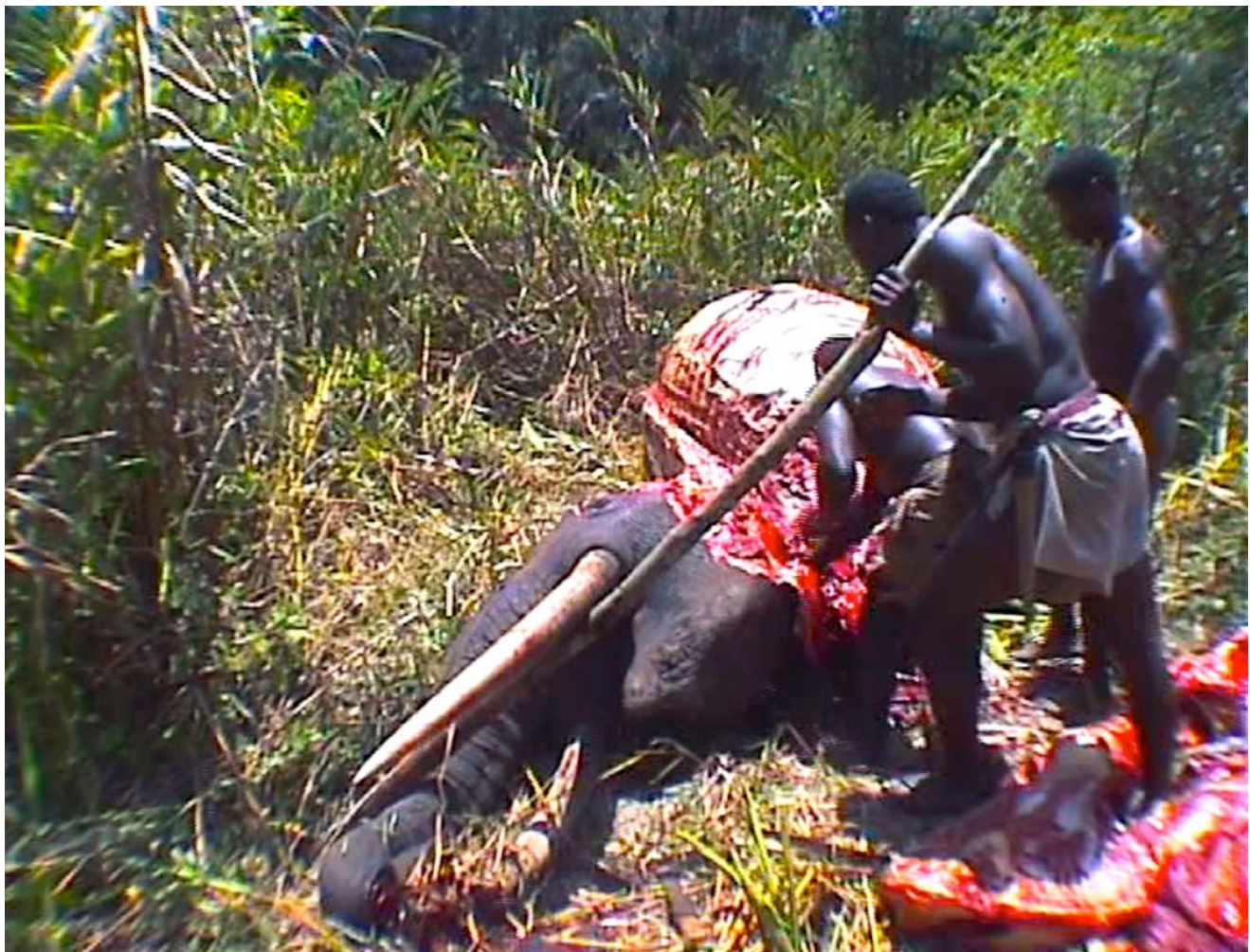
by Daniel Stiles

READ TIME 12 MINS

Public opinion has been conditioned by campaigns from organizations more interested in animal rights and welfare than in wildlife conservation to believe that legal ivory trade threatens elephants. The global media have supported this message. Ivory trade bans have, in fact, failed to protect elephants and in reality, threaten them more than legal trade does. Daniel Stiles explains why.

Comments like the one in the sub-title, posted as a response to an article advocating a legal ivory trade, reflect a widely held sentiment in the West. They all make the assumption that elephants have to be illegally, or at least intentionally, killed for there to be trade in ivory. It is a false assumption.

Another false assumption is that banning the legal ivory trade will stop elephant poaching. If I believed it were that simple, I would be leading the charge to close legal ivory markets. But it's not that simple. After examining the evidence, I've come to the conclusion that a limited legal trade in ivory will help elephants much more than the current prohibitionist regime. Even more important, it can support African rural economies and help lift people out of poverty. It is immoral to waste a valuable natural resource that has the potential to assist poor people.



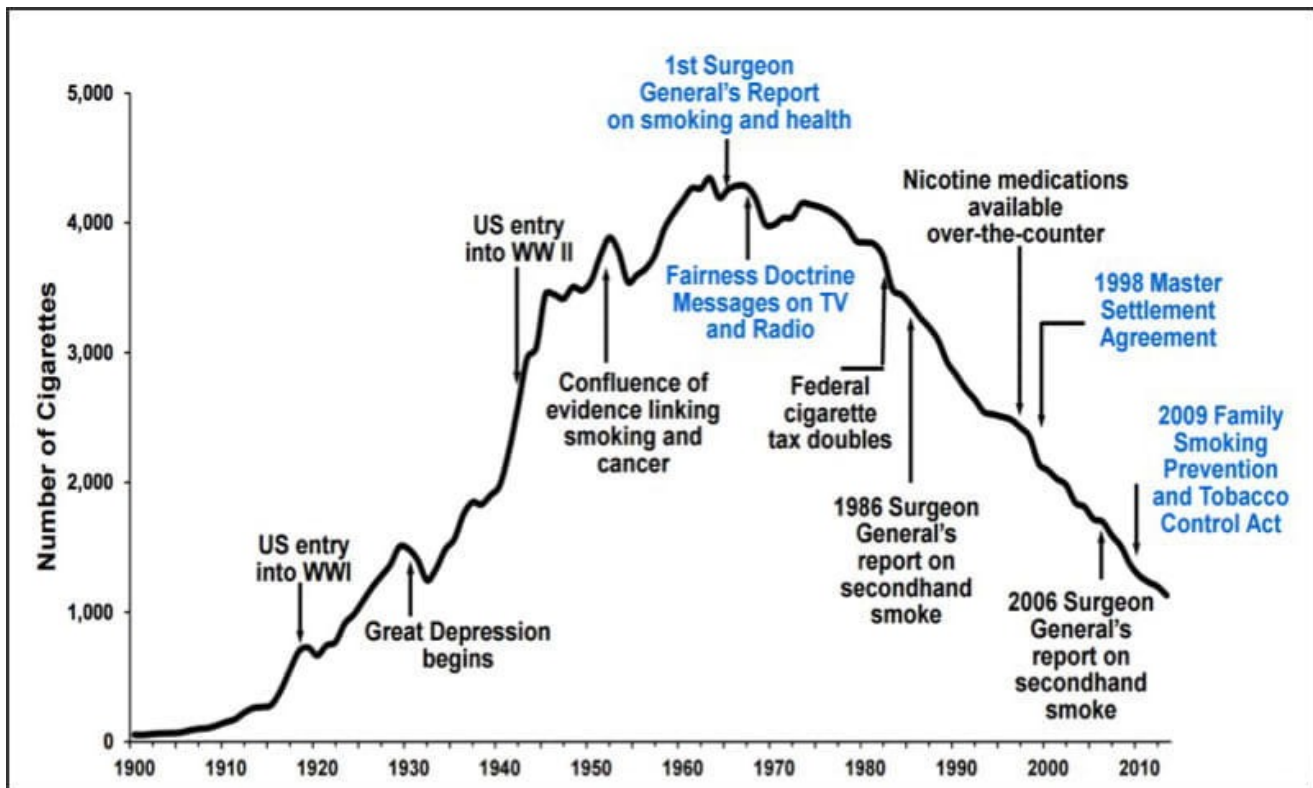
Humans have hunted elephants since time immemorial for their meat, skin and tusks. It is only since prohibitions on these traditional practices appeared that elephants have become threatened. Karl Ammann photo

Botswana, Namibia, South Africa and Zimbabwe have once again submitted a [proposal](#) to CITES to sell registered government-owned raw ivory stocks, excluding seized or unknown origin ivory. Once again, this has raised [claims](#) from the anti-sustainable use lobby that sales will lead to increased poaching.

A coalition of US and European groups is encouraging worldwide domestic trade bans on elephant ivory and destruction of national ivory stockpiles as a strategy to save elephants from extinction. Regrettably, this “[Stop Ivory](#)” approach reflects a Western viewpoint founded in a [biocentric](#) paradigm, in which animals are considered as individuals with intrinsic value that preclude their economic use by humans. The logical conclusion to the paradigm’s application in the wild given the reality of human demographics is extinction of species populations. Its expression has already inflicted questionable policies on African countries, with disastrous long-term [consequences](#) for both Africa’s people and wildlife.

The ban-ivory-everywhere policy pursues a top-down, authoritarian approach that aims to protect wildlife through prohibiting trade, increasing law enforcement, and constricting supply by confiscation and ivory stockpile destruction. It recalls the “War on Drugs” – and we have seen how well the War on Drugs has worked. The results have been the rise of brutal criminal gangs, widespread corruption of government officials, and [increasing use of illegal drugs](#). The complete ivory ban strategy relies on the same prohibitionist thinking, with condemning the alternative of regulated use and taxation, accompanied by consumer education to lower demand, a strategy that has shown success in dramatically [reducing tobacco use](#).

This prohibitionist approach is advocated by groups such as the International Fund for Animal Welfare, the Humane Society of the United States and more recently by the [Elephant Protection Initiative](#) (EPI), created by Stop Ivory and launched at the 2014 London Conference. They consistently oppose all commercial use of wildlife, regardless of whether such uses are sustainable, and even positive, for habitat and species conservation. IFAW’s president wrote an article headlined, “[There’s no such thing as a Sustainable Wildlife Trade](#).” Now, conservation organizations such as the [Wildlife Conservation Society](#) and [African Wildlife Foundation](#) have joined forces with the prohibitionists, which critics assert is to compete with animal rights NGOs in attracting donations from the public.



Smoking (in millions of cigarettes sold) in the US from 1900-2010. Smoking peaked in the 1960s, but then government reports linking tobacco to cancer, and other negative publicity, began to force down demand. Cigarette sales have declined further since 2010. Tobacco is still legal largely because of the billions of dollars in tax revenue that it generates.

This coalition mischaracterizes the elephant and ivory trade situation to rally public opinion and high-level political support in Western governments for a policy opposed to what in past years was the holy grail – sustainable development. They claim that previous experiences with legal ivory trade were a disaster for elephants. In that claim, I agree with them. But there has never been a long-term legal, regulated ivory trade in which producers and buyers – supply and demand – were joined together in a cooperative system in which all legitimate stakeholders agree to the rules, which provide benefits to all. There should be a system in which there are incentives for trading legally, and severe disincentives for breaking the rules.

The prohibitionist argument depends on six premises. (Since China is the prime recipient of poached ivory, it determines the future of elephant poaching, and the discourse below applies mainly to China.) The arguments go like this:

1. Legal ivory trade can be used to “launder” illegal ivory.

2. Corruption is so widespread that no system of legal trade could ever work.
3. Legal ivory trade stimulates poaching, as demonstrated by the two “one-off” ivory sales from southern Africa in 1999 and 2008.
4. The Chinese market is so huge that there are not enough elephants in Africa to supply demand.
5. Banning all ivory trade will collapse consumer demand.
6. Destroying all ivory stockpiles sends a message that poaching will not be tolerated. It makes seized illegal ivory impossible to leak into the market and it devalues ivory, lowering consumer demand.

Let's examine each.

1. Laundering - The only locations where ivory could be laundered are outlets where legal ivory is sold. A fool proof way to constrain the possibility of laundering is to restrict the number of legal outlets and types of ivory that are legal to sell. This is what China did when it initiated its legal system in 2004. At the peak of China's legal domestic ivory trade in 2014 there were 37 legal factories and 145 legal ivory outlets in the entire country. A [relatively tiny amount of illegal ivory](#) could be mixed in with the legal ivory in these facilities and laundered. It was estimated that over [80 per cent of poached ivory](#) was sold in illegal physical outlets, online and through personal networks in China alone, climbing to over 90 per cent of the total market if countries bordering China were included – no laundering was involved in these because there was no legal ivory to mix it with. Closing the legal outlets and factories in China at the end of 2017 simply drove buyers into the [black market system](#). Now 100 per cent of the market is illegal. Is that a victory for elephants?
2. Corruption - The corrupt trade seen today developed under an international trade ban regime beginning in the mid-1990s, caused by the 1990 CITES ban. This created the corrupt system we see today. The African countries with the most corrupt ivory trade already have trade bans. So banning trade in more countries is not the solution. The solution involves bringing African governments into a transparent, regulated legal trade

that confers [benefits on rural people](#) who live with wildlife and legal tax revenues to governments. Poor people are the foot soldiers of poaching. If ivory and other wildlife products could meaningfully contribute to their livelihoods in a legal manner, they would be motivated to manage wildlife for the future. I advocate a system that provides incentives to obey the law, not the prohibitionist approach where the incentives are to break the law.

3. [Legal ivory trade stimulates poaching](#) – The assumption is that legal trade stimulates demand, which in turn causes [increased poaching to supply that demand](#). The 1999 and 2008 legal ivory sales [did not stimulate poaching](#), regardless of what [some economists say](#). Demand in Japan, the only country to receive the 1999 ivory, actually [dropped](#) after



After China closed its legal ivory domestic market, since 2018 all ivory sold in the country is illegal, much of it sold online. (Screen-grabs from Taobao)

the sales, and it [continued to drop](#) after the 2008 sales. Ivory demand in China began to rise in 2005 after the government declared ivory carving an intangible cultural heritage and [launched initiatives to promote it](#). Interest in ivory took off in 2009 during the global financial crisis as ivory became an investment vehicle along with other luxury commodities. Concurrently, the CITES vote in 2007 to prohibit future legal raw ivory sales for at least 9 years caused the price of ivory to spiral upward. Speculators began

[stockpiling ivory](#), mostly acquired illegally, expecting the price to continue to rise because of scarcity guaranteed by the moratorium. The black market ivory prices in China then spiked from [\\$560-750 per kilogram in 2006](#) to [\\$2,100 per kilogram in 2014](#). This tripling in price contributed to the elephant-poaching crisis. The 2008 legal sale, if anything, kept the price from going even higher. It was not consumer demand for worked ivory that increased, it was speculator demand for raw and antique [ivory for investment](#) that spiked, caused by the global financial crisis. The vast majority of Chinese consumers did not even know that CITES ivory sales had occurred in 2008, so how could the sales have stimulated demand?



Most of the Chinese black market is made up of inexpensive jewellery, seals, chopsticks and trinkets. Author's photo.

4. Not enough elephants to satisfy demand - One of the biggest misunderstandings is ivory supply and demand. It does not matter how many consumers want to buy ivory, any more than it matters how many people want a Ferrari. What matters is how many who want it can afford to buy the commodity. If one really wants to lower consumer demand, it is imperative that mainly very expensive ivory items are manufactured. Produce mainly Ferrari worked ivory pieces, few Kias allowed.

This policy cannot be implemented with an uncontrolled black market. Researchers have shown that the [illegal sector](#) in China provided the cheaper end of the market, which was much larger than the more expensive legal sector up to 2018. And ivory is now supplied

100 per cent by poached tusks, with virtually no new art-quality pieces being manufactured. It is the high demand for cheaper worked ivory (jewellery, signature seals, trinkets), which almost anyone can afford, that causes so much poaching. Closing the legal market did not make the black market disappear, it simply sent more consumers online and stimulated ivory market growth in parts of Southeast Asia where law enforcement is lax.

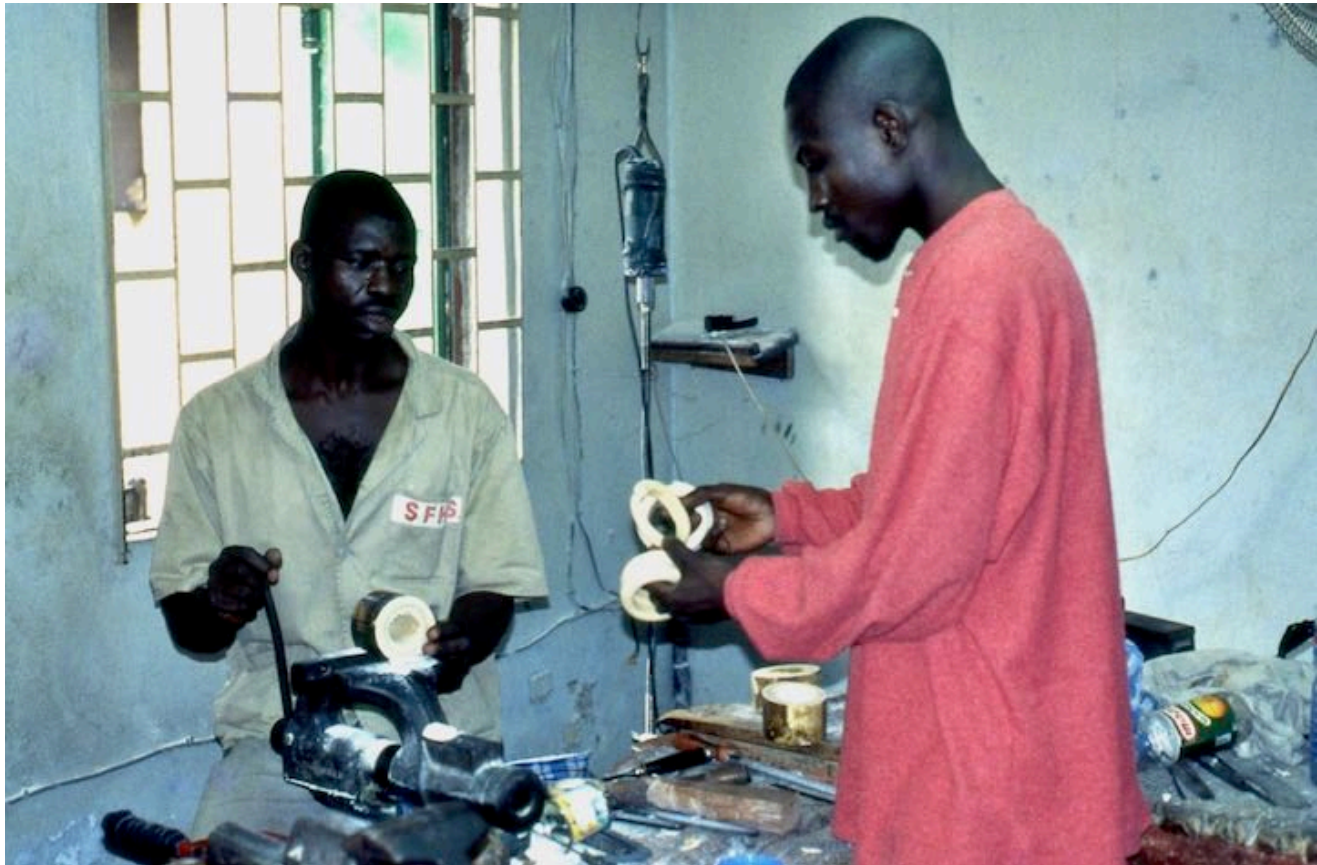


To limit raw ivory use to meet available supplies, mainly expensive pieces should be manufactured. This piece was on sale in Shanghai in 2003 for USD 137,000. Today it would sell for twice that. Author's photo.

People opposing ivory trade seem to forget that elephants do die naturally. It is wasteful not to use the resource, particularly in economically deprived areas. A [recent study](#) concluded that elephant poaching rates are highest in the poorest regions. There are more than enough elephants to supply a legal market from natural mortality without illegally killing a single elephant – if the ivory items are kept expensive. In addition, if elephant user-rights ('ownership') are devolved from African governments to local communities, legal ivory income derived from natural mortality and normal problem animal control will [fund conservation](#) of wildlife habitats and create the conditions to increase elephant populations. **No elephants need to be killed for ivory.** Keeping the CITES and domestic trade bans in place will result in humans replacing wildlife, including elephants, as there is no incentive to keep wildlife on the land, except in exceptionally favoured photo-tourism landscapes.

There is the risk that elephants will be poached to supply ivory to rogue workshops in East Asia to manufacture the small, cheap items. This can be countered in two ways: (1) African workshops can provide these items legally, as they do currently

illegally, and (2) there is always carving 'waste' from working the expensive pieces; some types of the cheaper items (e.g. beads, pendants) can be made from this waste in China. Supporting African ivory carvers in certain range states under regulated conditions can further provide incentives to communities to grow elephant populations.



To undercut rogue workshops producing cheap trinkets with poached ivory in Asia, African workshops can produce and export them. They currently do this in the black market, by bringing them into the legal market with legal ivory supply, poaching can be reduced while creating employment. Author's photo.

5. Bans reduce demand – Supporters of this assertion often cite the drop in elephant poaching and ivory prices that followed immediately upon the 1989 CITES ivory trade ban – “The ban caused ivory demand and prices to plummet. Resuming trade now will put elephants at even greater risk.” – [EPI](#). But after the huge stockpiles that Hong Kong and Japan had accumulated prior to the 1989 ban began running low, poaching and prices began rising again. The desired results in [Africa](#), [Southeast Asia](#) and [China](#) were temporary. A 2007 IFAW consumer survey in China found that of ivory consumers only 7.7 per cent had bought in registered legal outlets, 75.4 per cent said that they preferred

to buy ivory more cheaply illegally⁵. A 2018 [USAID-funded consumer survey](#) in China showed that only 44% of those surveyed were aware that there was an ivory trade prohibition. In spite of massive publicity in the West and demand-reduction campaigns in China, 56% of Chinese consumers were still ignorant that ivory was illegal to buy. Experience with Prohibition (alcohol) and the War on Drugs (narcotics) should be enough to persuade any objective person that trade bans do not lower demand. Every time calls are made in the U.S. to further restrict gun sales (usually after a mass shooting), gun sales spike upwards.



Kenya destroyed 105 tonnes of ivory in 2016 at a time when the Kenya Wildlife Service was experiencing severe financial problems. It is irresponsible to waste natural resources in time of need for a questionable ideology. Author's photo.

6. Destroying stockpiles – The first ivory destruction event famously took place in Kenya in July, 1989, when 12 tonnes went up in flames to draw attention to the CITES ivory trade ban vote coming up in October in Lausanne. Since then, by my count, there have been 39 more totalling at least 286.6 tonnes destroyed. There was a gap from 1992 to July, 2011, when in Kenya about 5 tonnes were burned. I was there in 2011, and I was left wondering

⁵ "IFAW Public Opinion Poll on Elephant and Ivory Trade", Horizon Research Consultancy Group, 2007, unpublished.

[what message was being sent](#). Kenya repeated in 2015 with 15 tonnes and in 2016 with a mammoth 105 tonnes. The intended message was not received by poachers and traffickers, however, as since 2011 poaching shot up and through 2018 has been [higher](#) than any year earlier, except 2008. If something this destructive does not achieve its intended goal, why persist?

Those advocating for ivory destruction have no skin in the game, they are playing with other peoples' resources. If they want to destroy ivory, let them pay for it. I believe that the ulterior motive in promoting stockpile destruction is to lower the possibility of a legal trade by reducing potential supply. Those organizations that promote ivory stockpile destruction and assist in organizing it should pay governments market value for the ivory. They would then realize its value. The proceeds could go towards funding community conservation and development initiatives in elephant habitats.

I believe that the prohibitionist ivory-trade policy has led to the elephant-poaching crisis and the deaths of hundreds of thousands of elephants since 1990, when the CITES ivory trade ban came into effect in most countries. It could have been avoided with a legal system of raw ivory supply to China. It is not too late to begin one.

An ivory trade system should be designed that will offer long-term, regular supplies from accredited suppliers to accredited buyers. A 'one-off' sale of the type that CITES authorized previously is NOT recommended. That is not trade in the normal sense of the term, it is akin to someone selling his car every ten years. The two previous sales created confusion, market instability and an opportunity for wildlife anti-use organizations to manufacture propaganda. A long-term ivory trade system involving both the producers and buyers has never been tried. It is way past time to get serious about conserving elephants by satisfying all stakeholders, removing incentives to poach. The only losers would be those organizations and individuals that receive donations from supporters to stop the "poaching crisis".

Daniel Stiles, PhD is an independent consultant who has carried out extensive research on the ivory trade and the causes of elephant poaching. He is a member of the IUCN/SSC African Elephant Specialist Group. The views expressed in this article are the author's own and do not necessarily reflect those of the IUCN/SSC African Elephant Specialist Group.

Banner Photo: Elephant Family Group, Photo Credit Daniel Stiles

Book Review

The Last Elephants

by Dr. John Hanks & Dr. John Ledger

READ TIME 12 MINS

Acknowledged African wildlife experts John Hanks and John Ledger take a critical look at Don Pinnock and Colin Bell's The Last Elephants. Hanks concludes with "enjoy the book for its great photographs, but please read the text critically and with an open mind for alternative options"; Ledger writes "it is time for a different approach, and hiding one of Africa's conservation success stories is not a very convincing way to win a spitting contest."



The Last Elephants. Don Pinnock & Colin Bell (Compilers). Struik Nature, Cape Town, an imprint of Penguin Random House South Africa (Pty) Ltd, 2019. Illustrated with many photographs. Soft cover, flexibound, 21x25 cm, 488 pages, illustrated in color throughout with photographs, maps and sketches. ZAR 490.00 (Smithsonian Books, US\$39.95). ISBN 978-1-77584-684-0

Editor's Note: This book has been reviewed by two respected African conservationists: Dr. John Hanks, a zoologist with a PhD from Cambridge on elephant population dynamics, 45 years' experience in a wide variety of applied conservation management and research projects in several African countries, and a former director of the Africa Program for WWF International; and Dr. John Ledger, currently visiting associate professor at Wits University, consulting editor of African Wildlife and Environment magazine and former head of the [Endangered Wildlife Trust](#).

Review by Dr. John Hanks: Colin Bell and Don Pinnock have come together to compile a very big book of 448 pages and 42 Chapters written by 40 contributors with outstanding photographs

of African elephants and their landscapes, some of the best I have ever seen. The main reason this book was produced is clearly stated at the front. “We hope this book will fulfil three wishes: Firstly, that readers from around the world will enjoy these compelling elephant accounts and beautiful photographs. Secondly that the delegates to CITES CoP 18 in Sri Lanka, use it to make wise and informed decisions to close all loopholes in the ivory trade. And thirdly, that countries receiving and using both legal and poached ivory – primarily China, Vietnam, Laos and Japan – ban and strenuously police its trade and use within their borders, actively pursuing and arresting syndicates who drive the cruel poaching tsunami.”

What a pity that it has the most unfortunate title of *The Last Elephants*, and a whole page devoted to one quote from HRH Prince William which says: “I fear that the African elephant will have disappeared from the wild by the time Princess Charlotte turns 25”. The Princess will be 25 in 2040, just 21 years from now.

For Bell and Pinnock to spread such irresponsible nonsense to support their efforts to influence the forthcoming CITES meeting and to close down the legal and illegal ivory trade does not help the promotion of realistic strategies to conserve African elephants. The whole of Africa has at least 400,000 elephants, with 130,000 in Botswana, 82,000 in Zimbabwe, 43,000 in Tanzania, 26,000 in Kenya and at least 19,000 in South Africa. I am not denying the poaching for ivory is a serious problem, but I am sure that if responsible and knowledgeable conservation staff in any of the five countries mentioned were told that a new book on elephants has predicted that all of their elephants will have been killed by 2040, I guarantee they will shake their heads in disbelief. They will also point out that the percentage of tuskless females is increasing in many places (as noted in the Chapter by James Currie), to well over 50% in some of the protected areas, and surely these animals will never be a target for an ivory poacher.

I do not for one moment doubt the sincerity and the concern of the contributors about declining elephant numbers, but with few exceptions (Michelle Henley being one) far too little attention in this book has been given to one of the main additional causes of this decline, namely human population growth. This year the population of Africa will reach 1,3 billion, and according to the latest UN projections, grow to 4,5 billion by the end of this century. With this growth comes a host of environmental and social impacts, unprecedented levels of land transformation and deforestation, linked to increasing poverty, declining food security, and

unemployment. A very recent study from the University of Groningen highlighted the changing face of Africa. From an analysis of 40 years of data, the study concluded that wildlife in the world-renowned Serengeti-Mara is being squeezed to the core by increasing human activity, and in just one decade a 400% increase in the human population resulted in a 75% decrease in the wildlife population, accompanied by a dramatic increase in human-wildlife conflict.

In most countries in the continent, this high rate of population growth in the poorest countries will make it harder for those governments to eradicate poverty, provide housing, hospitals and schools, and maintain even the most basic infrastructure, and virtually impossible to allocate funds for environmental conservation activities. There are already major shortfalls in financial support for virtually every national park and game reserve in Africa, impacting on the number and quality of staff, and their ability to maintain the security and integrity of areas under their charge.

I am equally concerned by the seriously incorrect statements by Pinnock and Bell some of which are given prominence in bold type. For example, on page 182, they state: “Despite the misinformation put out by those who stand to profit from the trade in wildlife, CITES trade bans can and do work. Rhino poaching was halted in just one year when all the rhino horn consumer counties implemented the full CITES trade ban regulations. With no market and no trade, poaching dried up.” The reality of course is totally different. Since the CITES trade ban of rhino horn in 1977, when all rhinos were placed on Appendix 1, it is estimated that more than 100,000 rhinos have been lost to poaching, and 23 of the 33 range states have lost all their rhinos. Trade bans have never worked in the past and there is no reason to think now that they will stop ivory or rhino poaching. The worst approach in soliciting support for any appeal is to exaggerate or make false claims. In referring to escalating elephant poaching, Colin Bell states that many campers have had their tents trashed and vehicles smashed by angry elephants. Many? Really?

I am also concerned by the continued praise for the burning of ivory stockpiles. Dr John Ledger, who was Associate Professor of Energy Studies at the University of Johannesburg, and a former Director of the Endangered Wildlife Trust, summarized the folly of this when he wrote: “By burning all that ivory, Kenya and the animal rightists who persuaded that country to perpetrate such a terrible deed, have condemned many thousands of living elephants to be

slaughtered by poachers to supply the callous traders who live in the sewers of the underworld, and do not care about elephants, or Africans, for that matter. Much has been made of China's undertaking to stop internal trade in ivory, raising more infantile comment from animal rightists, ignorant politicians, and armchair economists, that the demise of the ivory trade is about to happen. Experienced China-watchers know that there is a very big difference between what China says and what China does."

Most of the contributions in the book ignore the excellent record of elephant conservation by those countries supporting sustainable use where real benefits accrue to local communities living close to or with elephants. Namibia for example has an outstanding record of community based natural resource management (CBNRM) where elephant numbers have increased from 7,600 in 1995 to 22,700 in 2015. Elephant populations are also increasing in South Africa and there are today too many elephants in some of the smaller reserves. Far from being *the last elephants* and about to disappear, these populations have to be managed to stop them destroying their favored food types. Richard Fynn and Timothy O'Connor in their Chapter have recognized this and refer to the need to manage these populations through contraception, translocation or culling. It is one of the very few references in the whole book to the need to manage elephants, and the option of sustainable use of any elephants is conspicuous by its absence, although Clive Stockill does refer to the benefits of Zimbabwe's Communal Area Management Program for Indigenous Resources (CAMPFIRE) coming from consumptive and non-consumptive tourism.

Some of the authors have at least recognized the importance of the survival of elephants through benefits accruing to local communities, but how these benefits are generated and the options for sustainable use are largely ignored. The compilers should take note of the words of the new President of Botswana Dr Mokgweetsi Masisi who was commenting on the criticism his country has recently received when it moved to reintroduce elephant hunting and management of its very large elephant population in response to urgent requests by rural communities who had been adversely impacted by the hunting ban introduced by his predecessor and by escalating human elephant conflicts. He said: "It bamboozles me when people who sit in the comfort of where they come from, lecture us about the management of species they do not have". The compilers of *The Last Elephants* should have heeded similar advice before selecting the contributors to this book – 38 of them are white and there are only

two black people, and not one of them is living in a rural community having to deal with large and dangerous elephants on a day-to-day basis.

Enjoy the book for its great photographs, but please read the text critically and with an open mind of alternative options for making sure that these are not the last elephants.

John Hanks wrote this book review for 'Fine Music Radio Book Choice'. Republished with permission.

Review by Dr. John Ledger: This is indeed a 'blockbuster', as its large dimensions and many pages imply. It has spectacular photographs of African Elephants and African landscapes, and for this alone it is a book to be enjoyed. It also provides a fascinating insight into elephants and conservation in some little-documented African countries, such as Gabon, Democratic Republic of Congo, Congo Brazzaville, Central African Republic, Republic of Togo, Chad and Mali. In several of these countries, private/public partnerships between the NGO African Parks and host governments have achieved much conservation success. With a requirement of a 25-year lease from each government, African Parks has turned around many neglected African parks, and shown what can be done with the right attitude and expertise. This is a counter to the gloomy future portrayed for African elephants by this book.

In my view, *The Last Elephants* is a powerful piece of propaganda for the protectionist, animal-rightist and anti-hunting movement—people who by and large do not live permanently in rural Africa alongside large and dangerous animals. Many only visit rural Africa to conduct their ecotourism businesses, or to do exciting and career-enhancing research in wild and remote places, and then return to their comfortable homes in Europe, the USA or Cape Town.

Here is the motivation for this book: "We hope this book will fulfil three wishes: Firstly, that readers from around the world will enjoy these compelling elephant accounts and beautiful photographs. Secondly that the delegates to CITES CoP 18 in Sri Lanka, May 2019, use it to make wise and informed decisions to close all loopholes in the ivory trade. And thirdly, that countries receiving and using both legal and poached ivory – primarily China, Vietnam, Laos and Japan—ban and strenuously police its trade and use within their borders, actively pursuing and arresting syndicates who drive the cruel poaching tsunami."

So, here we go again, another call for CITES to repeat the failed bans on trade that have seen how rhino horn and elephant ivory continue to be in demand in certain parts of the world, and

how the futile and obtuse efforts to ban the trade in rhino horn for 40 years has not done anything whatsoever to conserve these animals. When will CITES, and the prohibitionists who influence its decisions, ever learn that continuing to do more of the same thing and expect a different outcome is a sure sign of lunacy?

I thus urge readers to enjoy the wonderful photographs, but be cautious about much of the content, because it is biased, selective and mainly addresses only one side of the African Elephant management conundrum. When one reads about things where you have personal experience, this can be an indication of the quality of the content of the whole book.

I know something about Namibia, and I found the information provided about this country to be appalling. There is only one article under the country heading 'Namibia'. This is an academic article about 'Desert-dwelling elephants of north-west Namibia', starting on page 273. We read about 'social structure', 'male and female society', 'genetic links', 'feeding activities and defecation rates', 'water', 'resting', 'coprophagy' (for goodness' sake!) and 'thermoregulatory behavior'.

But nowhere, folks, nowhere is there any mention of Namibia's success in community-based conservation, of its massive community conservation areas, of its government's unwavering support for both trophy hunting and subsistence hunting, of the benefits that have flowed to rural communities through a balanced approach towards sustainable consumptive wildlife utilization, alongside ecotourism opportunities. How does Namibia manage conflicts between rural communities, elephants and lions, for example? Why does this book choose to ignore the success story of conservation in Namibia, and makes no mention of one of the most significant books on the region, [*An Arid Eden: A Personal Account of Conservation in the Kaokoveld*](#), by Garth Owen-Smith?

Much too is made about the CITES-approved limited sales of ivory stockpiles held by southern African countries in 1999 and 2008. This is blamed for the resumption of elephant poaching that had allegedly been halted by the ban previously in place. My conversations with TRAFFIC over the years indicate that this conclusion is not borne out by the facts. One author goes so far as to say that South Africa, Zimbabwe, Namibia and the European Union and others "have much on their collective conscience. Assuming they have one." Gosh!

And another of the chapter authors says this about the above ivory sales: “The result is today’s ivory crisis, where around 30,000 elephants are poached annually throughout Africa—an elephant dies every 15 to 20 minutes. To make matters worse, not one cent of the proceeds from the ivory sale was ploughed back directly into conservation.”

This statement is blatantly untrue; Namibia ring-fenced all its proceeds from the ivory sale for conservation expenditure. I have visited community-owned and managed tourist lodges in the Caprivi that were built with the funds from the much-maligned ivory sales.

No review can do justice to this book, nor go into a detailed argument about a re-think of the ‘ivory crisis’. I do know one thing—trade bans have never worked in the past and there is no reason to think they will solve this ‘crisis’. It is time for a different approach, and hiding one of Africa’s conservation success stories is not a very convincing way to win a spitting contest.

First published in African Wildlife & Environment # 72 (2019): p 5. Republished with permission.



Trophy Hunting in the Greater Kruger Area

Can it serve broader conservation priorities?

By Greg Martindale

READ TIME 10 MINS

Trophy hunting in the open system of the Greater Kruger Area is contentious and controversial, if one were to believe social media. Yet, the wildlife economy—which includes hunting, game ranching and wildlife tourism—has the potential to re-shape South Africa’s approach to rural development and land reform. An integrated conservation approach must drive rural economic development—wildlife tourism and hunting are important parts. Greg Martindale explains why.

What matters to local communities in the Greater Kruger?

In preparing the 10-year management plan for the Kruger National Park in 2018, South African National Parks (SANParks) conducted 54 stakeholder engagement workshops, involving over 5,700 participants, with communities neighboring the reserve and other stakeholders across the country. It is notable that the primary concern of the community members neighboring the Kruger Park was firstly jobs, followed by damage-causing animals. Human-wildlife conflict around the reserve is a concern and involves impacts from species such as elephants and hippos damaging crops and infrastructure, lions and other predators killing livestock, the transmission of diseases like foot-and-mouth disease by buffalo, and threats to human life associated with all of these species. It is also noteworthy that the stakeholder engagement workshops held in Johannesburg (21 people), Durban (24 people) and Cape Town (11 people) were poorly attended.

In contrast, following the hunting of a lion in Umbabat, which is part of the Associated Private Nature Reserves (APNR), last year, there was a huge uproar akin to the controversy that followed the hunting of Cecil the Lion in Zimbabwe several years ago. This led to a major meeting held in Johannesburg, attended by SANParks, provincial conservation officials and a significant number of members of the public.

Some questions this raises are: where were these predominantly privileged, middle class people when the management plan workshops were being held? Why is the hunting of a single animal so disproportionately more important than the conservation management of the entire reserve?

The APNR as part of the Greater Kruger Area

It is important to put the APNR into context. Although open to the Kruger Park, it encompasses Balule, Thornybush, Timbavati, Umbabat and Klaserie Private Nature Reserves, which collectively make up an area of approximately 250,000 hectares (618,000 acres). The APNR is thus equivalent in size to Addo Elephant National Park and Hluhluwe-iMfolozi Park combined.

Claims that the animals being hunted in the APNR are Kruger Park animals are thus disingenuous. The size of the APNR means that it is perfectly capable of maintaining large

viable populations of species typical to the Lowveld region, including the Big 5. The APNR adds considerably to the area of the open system of the Greater Kruger and contributes significantly to a large landscape-scale conservation initiative that can justifiably be considered among South Africa's most significant conservation success stories.

In December 2018 a cooperative agreement, under the auspices of the Great Limpopo Transfrontier Park Treaty, was signed between all protected areas that make up the open system of the Greater Kruger Area, adding another 360,000 hectares (890,000 acres) to be consistently managed. The Great Limpopo Transfrontier Park encompasses protected areas in Zimbabwe, Mozambique and South Africa and is one of the most important conservation initiatives in southern Africa.

The cooperative agreement is ground-breaking as it establishes a framework for cooperative management and collaboration between state, privately-owned and communally-owned protected areas. This massively exciting initiative will enable landscape-scale ecosystem management issues to be undertaken in an integrated fashion and it will enable the huge socio-economic value of the Greater Kruger Area to be unlocked.

Importantly, in terms of hunting, the existing APNR hunting protocol will form the basis for a Greater Kruger Area hunting protocol, which will ensure that any hunting that takes place outside of the Kruger Park but in the open system of the Greater Kruger Area, is based on scientifically-determined offtakes, that consider demographics and avoid a focus on large-gene animals (for example there are restrictions on the maximum tusk weight of elephants hunted in age classes of 20-40 and 30-40 years old respectively). The APNR protocol sets stringent ethical standards for hunting (including sanctions against transgressors), and requires transparency in the expenditure of funds and the flows of income from hunting in the APNR. This sets an industry benchmark for good practice that will have to be followed by all reserves that are open to the Kruger National Park in which hunting may be undertaken.

The evolving story of hunting and sustainable use in the Greater Kruger

Hunting has emerged as an increasingly contentious issue in the APNR. This against the backdrop of some severe missteps in the wildlife industry, such as some unethical hunting practices and the recent financial bubble associated with the intensive breeding of rare and

color variant species. This tarnished the reputation of South Africa's wildlife industry and exposed the extreme profit-driven motives of some.

Nevertheless, it is important that we make the clear distinction between responsible and sustainable hunting practices that are properly regulated and policed; and hunting practices that are irresponsible and unsustainable. Responsible hunting should be considered in its proper perspective and many of the conservation gains made in recent decades in South Africa should not be jeopardized by its exclusion due to the malpractice of some.

Sustainable utilization is central to the philosophy of conservation in South Africa and southern Africa and is a primary driver of its success. It is the reason that 30% of the planet's white rhino exist on private property in South Africa, and it was central to hugely successful initiatives such as the CAMPFIRE program in Zimbabwe, and the massive gains that have been made in recent years in the conservation sector in Namibia through its Community-based Natural Resource Management Programs. All of these initiatives enable landowners and communities to gain economic and financial value from their wildlife through sustainable utilization, which includes all forms of hunting.

This contrasts with the hunting ban imposed in 2014 by the previous president of Botswana, Ian Khama. In a study undertaken by Mbaiwa (2017), it was found that following the hunting ban, there was a reduction of benefits to local communities such as "income, employment opportunities, social services, scholarships and income required to make provision of housing for the needy and elderly." The study also found that the Khama's hunting ban "led to the development of negative attitudes by rural residents towards wildlife conservation and the increase of incidents of poaching in Northern Botswana."

In 2019, the Masisi government in Botswana reversed this hunting ban; it is noteworthy that this is being done in light of restoring accountable democracy and respect for human rights. The inability of rural communities in Botswana to benefit from wildlife and the daily risks they face to their survival and livelihoods from wildlife impacts have been acknowledged, together with an acknowledgement that the provision of rights to rural communities in this regard is to the benefit of wildlife conservation.

Madzwamuse and Rihoy (2019) highlighted that "addressing the conservation problems in Botswana must start by building understanding and common ground between stakeholders

with varying perspectives. At the heart of this must lie recognition of the rights of rural people and from this, alignment can be reached between rural communities, governments and the global conservation community. Recognizing these rights would ensure that the benefits and the risks of protecting wildlife are collectively shared, reversing the current situation, which places the burden on marginalized communities and provides benefits to a small elite.”

Recent incidents and the APNR Hunting Protocol

Following several hunting-related incidents in the APNR in 2018, questions have been put to SANParks about hunting in what is perceived as the Kruger National Park. This issue came to a head in a colloquium in parliament, earlier this year, in which SANParks was heavily criticized for hunting in the open system of the Greater Kruger Area and the legitimacy of the cooperative agreement for the Greater Kruger Area, that had been signed at the end of 2018, was questioned.

The incidents related to the hunting of the lion in Umbabat and two elephant hunts in Balule. In one of these cases an elephant bull was shot and was subsequently found to have a tracking collar on. The APNR Hunting Protocol was breached since this elephant had been shot in the Mpumalanga section of Balule when the permit had been issued by the Limpopo authorities, meaning that the elephant should only have been hunted in the Limpopo section of the reserve. The Mpumalanga authorities prosecuted the reserve representative, he pled guilty, and was fined an amount of R100,000 (ca. US\$6,720). In the second case, a group of hunters were charged by an elephant, fired multiple shots, and killed the elephant. The incident occurred about 800 meters from a tourist lodge and was witnessed by lodge visitors. In this case, the hunting party had complied with the APNR Hunting Protocol and were in possession of the correct permits.

It must be noted that the reserve management and authorities responded to these incidents by either prosecuting offenders, or reviewing and updating protocols, which underpins efforts to ensure responsible hunting and continual improvement in hunting practices in the APNR.

How can we deliver on the promises of the wildlife economy?

South Africa has set hugely ambitious targets for the development of a national biodiversity and wildlife economy. At a six-week Phakisa⁶ known as the Biodiversity Economy Lab, hosted by the Department of Environmental Affairs and the Department of Tourism, the following targets for 2030 emerged: the transfer of 10 million hectares of land to previously disadvantaged individuals; the creation of 60,000 jobs across the value chain; and the development of 4,000 SMMEs (small businesses), owned and operated by previously disadvantaged individuals. Although the targets are perhaps optimistic, it is commendable that South Africa has acknowledged the role that the wildlife industry, which includes tourism, hunting and the harvesting and sale of game meat, can play in the national economy.

The wildlife economy has the potential to re-shape our thinking and approach to rural development and land reform in South Africa and it is important to understand how central the Greater Kruger Area already is and will be to this process in the future.

Tourism, including nature-based tourism and hunting, in South Africa is one of the few economic success stories over the last decade in the face of national and global recessions, and the most iconic tourism destinations in the country are Table Mountain and the Kruger National Park. The Kruger Park's new management plan and the cooperative agreement provide the basis to expand the protected area footprint and drive the wildlife economy in a strategic, integrated and responsible fashion. It must be understood that hunting is an important component of this framework.

The International Union for the Conservation of Nature (IUCN – the international umbrella organization that represents almost all conservation authorities and NGOs worldwide) supports hunting, stating in the [*IUCN SSC Guiding Principles on Trophy Hunting as a Tool for Creating Conservation Incentives*](#), “IUCN has long recognized that the wise and sustainable use of wildlife can be consistent with and contribute to conservation, because the social and economic benefits derived from use of species can provide incentives for people to conserve them and their habitats.”

⁶ Phakisa means “hurry up” in Sesotho and can be translated as “a results-driven approach, involving setting clear plans and targets, on-going monitoring of progress and making results public”.

Properly managed, responsible, ethical and sustainable hunting is supported by many conservation NGOs and conservation professionals in South Africa.

Opposition to hunting in the APNR does not seem to be considering the broad conservation sector and the rural communities living in the Greater Kruger Area. Because many of the groups opposing hunting are well funded and have strong voices, particularly in social media, their opinions in this debate appear to be disproportionately represented.

This has real consequences for the communities that are affected each day by the impacts of wildlife. It also has real consequences for South Africa's wildlife economy program and others related to community-based natural resource management. This must be viewed within the context of the major challenges that conservation in South Africa, and Africa generally, face. Most government conservation authorities are massively under-funded but the costs of conservation continue to escalate, particularly associated with priority issues such as rhino security.

The real threats to conservation: habitat loss and fragmentation

Conservation needs to effectively harness every resource that it can to be viable, whether this is ecotourism, hunting, the live sale of wildlife or the production of game meat. We need to understand that hunting is not a threat to conservation, it is one of the solutions, as it provides much needed revenue and the ability to compensate those whose lives and livelihoods are at threat from the presence of large and dangerous wildlife.

The real threats are habitat destruction and fragmentation, ecological degradation from inappropriate land use practices, invasive alien plant species, climate change and a myriad of other issue.

An integrated approach to conservation that incorporates hunting is required to tackle these challenges and secure South Africa's biodiversity, its species and the ecosystem functions and processes that underpin all life on earth, including our own.

The potential that the hunting controversy around the APNR has to derail the further development of the Great Limpopo Transfrontier Park and the implementation of its associated cooperative agreement is significant. We cannot afford the fracturing and fragmentation of the open system of the Greater Kruger Area that may result from this. It will

set conservation in South Africa back 30 years and may irreparably damage the biodiversity and wildlife economy. Sustainable utilization is enshrined in South Africa's Constitution and Protected Areas Act, and is central to our conservation philosophy. It is a vital component of our wildlife industry and must be defended if we are to properly unlock its benefits.

Greg Martindale is a director of [Conservation Outcomes](#), a non-profit company that focuses on the creation of new protected areas and management support to existing protected areas in South Africa. He has an MSc in conservation biology and a Masters of Environmental Law degree. With over 20 years' experience in the conservation and natural resource management sectors, Greg worked at Ezemvelo KZN Wildlife, as a consultant in South Africa and Australia, and as the conservation manager of Gunung Mulu National Park in Sarawak, Borneo.

Banner Image: APNR and Kruger National Park © Africa Geographic. The [original version](#) of this article was first published on April 2, 2019 by Africa Geographic.

Book Review

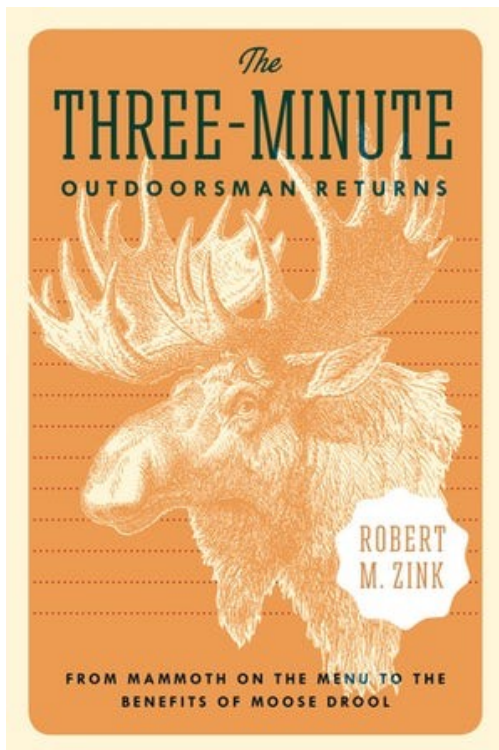
The Three-Minute Outdoorsman Returns

From Mammoth On The Menu To The Benefits Of Moose Drool

by Jim Williams

READ TIME 2 MINS

Jim Williams gives a tongue-in-cheek review of Robert M Zink's enjoyable new book peppered with many facts.



The Three-Minute Outdoorsman Returns: From Mammoth on the Menu to the Benefits of Moose Drool. Robert M. Zink. 2018. Univ. of Nebraska, paperback, 328 pages. ISBN 978-1-4962-0361-8. \$19.95

There are two Bob Zinks. One is Dr. Robert Zink, who once led the ornithology department at the University of Minnesota and now is on the faculty of the School of Natural Resources at the University of Nebraska-Lincoln. The other is his alter ego Bob Zink, aka the Three-Minute Outdoorsman, who changes from lecture clothes to camo for outdoor adventures and observations guided by an unbound curiosity.

Dr. Zink is author of many scientific papers. As Bob the outdoorsman he is author of articles in Minnesota's sportsman tabloid, "Outdoor News," articles collected first in a book entitled "*The Three-minute Outdoorsman: Wild Science from Magnetic Deer to Mumbling Carp*," and more recently in "*The Three-minute Outdoorsman Returns: From Mammoth on the Menu to the Benefits of Moose Drool*."

Bob is a man who feeds his curiosity with scientific research papers, probably one of few hunters who does that. Yes, he is a hunter, venison a favorite meat. The questions he has and the answers he finds are given to readers in stories generated by his time in the field, often

with hunting bow in hand. The latest book has several essays about white-tailed deer. He explores questions about wild sheep, dirty kitchens, Passenger Pigeons, dogs, road kill, fish, catch-and-release, and water fleas, among many other things.

There are particularly pointed comments on the problems caused by feral cats and house cats allowed to roam outdoors. He wonders why the City of Minneapolis bends to the demands of the pro-cat lobby at the same time it favors bird-safe glass at U.S. Bank stadium. The cat lobbyists feed feral cat colonies. Feral cats kill far more birds than ever will die flying into stadium glass.

There is more and more, including another chapter on cats: "A Scientific Program Dedicated to Eradicating Feral Cats." Cat fan or not, you'll enjoy being outdoors with Bob. Meet a man who knows how to find a good answer to an interesting question.

Editor's Note: *The chapter "Never Let the Truth Get in the Way of a Good Story about Cecil" recalls the 2015 controversy about a lion in Zimbabwe killed by a Minnesota dentist, with Zink opining that, contrary to the views of many, "the hunter did nothing wrong."*



New Partnership to Protect Underdog Species from Direct Threats

Four leading NGOs have joined forces through Restore Species to tackle illegal and unsustainable hunting & trade as well as poisoning of animal species worldwide.

by Cressida Stevens

READ TIME 5 MINS

Extinctions can be prevented when we have the right commitment. [Restore Species](#)—a cooperation between BirdLife International, Wildlife Conservation Society, Fauna & Flora International and TRAFFIC—holds enormous, innovative potential with each of the four partners committing their extensive network of experts, community contacts and vast experience to long-term, strategic collaboration. Cressida Stevens gives details.

What do bulbous-nosed Saiga antelope, big-horned Urial sheep, bizarre-beaked Helmeted Hornbills, Caribbean iguanas and African vultures all have in common? As well as being in grave danger of extinction, all suffer at the hands of humans from one or more of three main threats: illegal and unsustainable hunting and trade, and poisoning. Yet if you were to ask someone on the street about the plight of these animals, they would likely be oblivious.

Thankfully, four leading conservation NGOs have joined forces to conduct a large-scale rescue mission for classically overlooked species that are in dire need of deliverance. “Even within protected areas, species can still be directly targeted and face immediate risk of extinction in our lifetimes,” says Roger Safford, BirdLife’s Preventing Extinctions Program Manager. “But



Two magnificent male Kashmir markhor males (Capra falconeri cashmiriensis, Lydekker 1898; Imran Shah photo). For comprehensive information on markhor, urial, argali and all species and subspecies of wild sheep and goats, refer to The CIC Caprinae Atlas of the World by Gerhard Damm and Nicolas Franco.

healthy populations can be restored if we tackle the root threats that are having the most severe impacts.”

[Restore Species](#) is a collaboration between [BirdLife International](#), [Fauna & Flora International \(FFI\)](#), the [Wildlife Conservation Society \(WCS\)](#) and [TRAFFIC](#). The partnership has identified key ‘underdog’ species that are most affected by one or more of these three direct threats, and in urgent need of help. The pooled resources and expertise will create a powerful saving force.

As an example, let us take you to Central Asia’s vast mountain ranges - the realm of the ‘mountain monarchs’. With muscular frames and huge, impressive horns, the Urial and Argali sheep, *Ovis vignei* and *Ovis ammon* respectively, and the Markhor and Asiatic Ibex goats, *Capra falconeri* and *Capra sibirica*, make a remarkable catch for hunters. Over-hunting is driving their declines, along with disease and competition for resources with livestock.

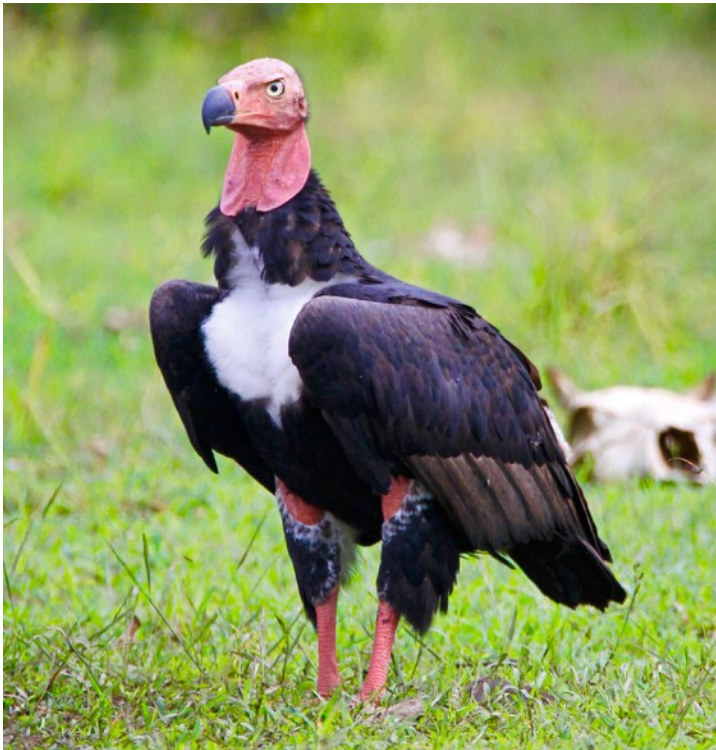
Trophy hunting schemes are in place and, though controversial, have proven extraordinarily effective in encouraging local beneficiaries to protect their populations. However, poor management of these schemes often means illegal killing still prevails. Stephane Ostrowski, Ecohealth and Conservation Adviser for WCS Inner Asia, says trophy schemes can prove useful to conservation: “When practiced conservatively, this activity can support conservation efforts, buying time to install better wildlife management and governance, and change minds towards more respectful attitudes to wildlife” (*Editor’s note: for more information on the conservation and sustainable use of the wild sheep and wild goats of Central Asia, please read [Community-Based Wildlife Management in Central Asia](#) and [Introduction to the New Central Asian Sustainable Use & Livelihoods Specialist Group](#), published by Conservation Frontlines*).

Through community-based conservation, WCS has helped local partners reduce the poaching of Markhor goats in Gilgit-Baltistan Province of Pakistan and widespread application of these methods should make a big difference for the future of targeted populations of the ‘mountain monarchs’.

Next, a familiar tale for BirdLife supporters: the vulture crisis. Whether these valuable scavengers are deliberately targeted by poachers to obtain body parts for ‘belief-based use’, or the unintended victims of targeted killing of carnivores that prey on livestock, the result is the same – just one poison-laced carcass can attract, and kill, hundreds of them. Of the 16 vulture species that inhabit Africa, Asia and Europe, 11 are in serious danger of extinction.

Rebecca Garbett, African Vulture Conservation Manager at BirdLife International explains that, while our work is making great headway, coordinated action is the vultures’ best hope of a

future. “Our Restore Species partners cover almost all of the vast ranges of these birds: it is exactly the kind of challenge that this partnership was set up to tackle.”



Red Headed vulture, aka Asian King vulture, Indian black vulture or Pondicherry vulture (Sarcogyps calvus) is Critically Endangered and mainly found on the Indian subcontinent, with small disjunct populations in some parts of Southeast Asia. Photo Credit: Phearun Sum, BirdLife International

Illegal wildlife trade is a hugely lucrative business with long arms that reach through protected area boundaries, and compounds the threats already faced by many of the species covered by Restore Species. Through analyses of trade records combined with market surveys and observations of increasingly silent forests, TRAFFIC, BirdLife and others have uncovered a crisis in the Asian bird-trading business.

Soaring demand for forest songbirds, coupled with easier access to their habitats and lack of trapping legislation puts many species in danger.

Birdkeeping in countries such as Indonesia and Vietnam is as culturally established as dog ownership in the west, so action must allow this intrinsic local custom to continue in a sustainable way.

“Concern about this age-old culture-turned-problem has never been higher than it is today”, says Kanitha Krishnasamy Director for TRAFFIC in Southeast Asia. “This gives us the opportunity to turn the tide – governments and conservation organizations must collectively work to shift the needle from evidence to influence and impact.” Restore Species will work to monitor trade levels of priority bird species, support law enforcement, create trapping-free sites throughout Southeast Asian forests, and use a range of approaches including evidence-based behavior change to reduce demand.

Another focus is on the unsustainable trade in the dazzling endemic reptiles of the Caribbean. Highly sought-after as pets, unfortunately the rarest species fetch the greatest profits, such as the Union Island Gecko *Gonatodes daudini*, a tiny, Critically Endangered reptile with jewel-like markings that is confined to just 50 hectares of forest in St Vincent and the Grenadines. But Dr Rebecca Drury, Program Manager of Conservation Partnerships at FFI, says its chances are improving: “Since the patrols started in Union Island, a sharp drop in signs of reptile poachers has been reported. We are confident that, with the measures in place on the ground and the international actions we are taking, its status will improve.”

All these species play fundamental parts within their ecosystems. Argali and Asiatic Ibex are important prey species for Snow Leopards *Panthera uncia*, and vultures curb the spread of disease among wildlife. Furthermore, with the recent revival of trade in the casques of Helmeted Hornbills *Rhinoplax vigil* comes collateral damage of countless other birds as poachers shoot at any flying large bird, especially other hornbill species. Rescuing these ‘underdogs’ will therefore have positive knock-on effects for wider biodiversity, though they are of course absolutely worth saving in their own right.

Richard Grimmett, Director of Conservation, BirdLife, summarizes the importance of this new partnership: “We can prevent extinctions when we have the right commitment. [Restore Species](#) holds enormous, innovative potential with each of the four partners committing their unique strengths and vast experience to long-term, strategic collaboration.” With such an extensive network of experts, community contacts across the globe and supporters’ generous donations, these animals are finally receiving the attention they deserve.

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*Banner Photo: Male Saiga (*Saiga tatarica*), Photo Credit Navinder Singh*

Book Review

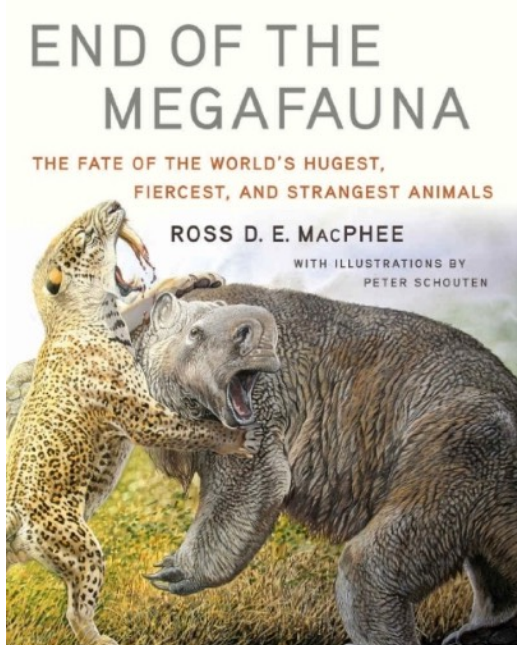
End of the Megafauna

The Fate Of The World's Hugest, Fiercest, And Strangest Animals

by Silvio Calabi

READ TIME 3 MINS

Silvio Calabi reviews Ross D.E. MacPhee's book End of the Megafauna: The Fate of the World's Hugest, Fiercest, and Strangest Animals. For all its intellectual rigor and occasionally academic language, MacPhee's book was written for lay people. The last chapter shows how the fossils of giant bears, mammoths and saber-toothed cats could point to astonishing future developments.



End of the Megafauna: the fate of the world's hugest, fiercest, and strangest animals. Ross D.E. MacPhee; profusely illustrated by Peter Schouten. 2019. W.W. Norton & Company. Hardcover, 21x26 cm, 236 pages; annotated, with references, index, credits & attributions, and a guide to further reading. ISBN 978-0-393-24929-3. US\$35.

Don't judge this one by its cover. *End of the Megafauna* is not a wide-eyed picture book about giant bears and mammoths and sabertooth cats threatening cavemen and causing prehistoric mayhem. It is a semi-scientific book about giant bears and mammoths and sabertooth cats, and "cavemen" too; that is, paleohunters, from early hominins to what MacPhee calls "anatomically modern humans." The key to the book is the word "fate" in its subtitle: What happened, 11,000 or so years ago, to erase so many species of megafauna (big animals) from the earth?

These Near Time extinctions—of cats, deer, kangaroos, turtles, buffaloes, bears, elephants, sloths, camels, horses, birds and more, many of them considerably larger than today's versions—took place more or less concurrently across large swathes of the world. Why? How? Did

sudden climate change kill them off? Did humans hunt them to death—all of them, everywhere? Or was their complex food web disrupted somehow? Perhaps some exceptionally lethal disease circled the globe, extinguishing so many of these beasts that, in our wild heart of hearts, we'd give a great deal to be able to see today? (Clearly, they weren't managed for sustainable use.)

[Ross MacPhee](#) heads the Division of Vertebrate Zoology in the Dept. of Mammalogy at the American Museum of Natural History in New York City. In a stellar career, MacPhee has published many papers and taken part in more than 50 scientific expeditions to the far corners, including both Poles. Such a combination of lab and field work qualifies him to discuss and weigh each of these hypotheses in some detail—and none of them seems likely to have been the culprit, at least by itself.

For all its intellectual rigor and occasionally academic language, the book is *semi*-scientific because it was written for lay people, to show us what the fossil record indicates took place back then—where and when and to which species. [Peter Schouten](#)'s wonderful paintings of animals, extinct and extant, illustrate the text, but they also take us into those lost worlds. We see the Appalachian Plateau, the Madagascar Highlands, the savannas of southern Africa, the pampas of South America, and much more, populated as they surely were, thousands of years ago.

The past often can point to the future, and MacPhee's last chapter is, in some ways, his punch line: "Can the Megafauna Live Again?" Cloning a mammoth, or a passenger pigeon or an American chestnut tree, is impossible without intact DNA from living tissue. But by splicing degraded DNA from, say, a frozen Siberian mammoth carcass with living cells from an Asian elephant, and using the elephant as a surrogate mother, with careful gene editing and some luck, within two or three generations we might see a hybrid animal that is, for all intents and purposes, a living, breathing, hairy, cold-adapted, breedable mammoth fit to be released into [Pleistocene Park](#). "The chances of success," MacPhee writes, "are better than one might think." From a scientist, this is optimism indeed!



Abstracts of Recently Published Papers on Hunting & Conservation

by Editorial Team

READ TIME 11 MINS

The Conservation Frontlines Team selected a range of new scientific, peer-reviewed papers. Scan over the abstracts to get an overview. All items have links to the original papers where you can explore the complex issues of global conservation in depth.

[America's Wildlife Values: The Social Context of Wildlife Management in the U.S.](#) 2018.

Manfredo M, Sullivan L, Carlos D, Dietsch A W, Teel A M, Bright T L & Bruskotter J. National report from the research project entitles "America's Wildlife Values". Fort Collins, CO.

Colorado State University, Department of Human Dimensions of Natural Resources. 95 pages with many detailed graphs and maps.

Executive Summary: The purpose of the America's Wildlife Values Project was to assess the social context of management in the U.S. to understand the growing conflict around wildlife management. It is the first study of its kind to describe how U.S. residents within and across all 50 states think about wildlife, and how changing perspectives shape the wildlife profession. Findings from this project build on three sources of data: 2004 data on public values from the 19-state Wildlife Values in the West study (n=12,673); 2108 data on public values from all 50 U.S. states (n=43,949); and 2018 data on fish and wildlife agency culture from 28 states (n=9,770). The authors provide information on "Understanding Change in Wildlife Value Orientations", "Impacts of Values on Wildlife Management Issues", "Participation in Wildlife-Related Recreation", "Public Trust in State Fish and Wildlife Agencies" as well as "Agency Culture and Governance".

[Unleaded hunting: Are copper bullets and lead-based bullets equally effective for killing big game?](https://doi.org/10.1007/s13280-019-01171-4) 2019. Sigbjørn Stokke, Jon Arnemo & Scott Brainerd. Royal Swedish Academy of Sciences. <https://doi.org/10.1007/s13280-019-01171-4>

Abstract: Semi-jacketed lead-cored or copper-based homogenous rifle bullets are commonly used for hunting big game. Ever since their introduction in the 1990's, copper-based bullets have not been widely accepted by hunters due to limited supply, higher expense, and the perception that they exhibit inferior killing efficiency and correspondingly higher wounding rates. Here, we present data showing that animal flight distances for roe deer, red deer, brown bear, and moose dispatched with lead- or copper-based hunting bullets did not significantly differ from an animal welfare standardized animal flight distance based on body mass. Lead-cored bullets typical fragment on impact, whereas copper-based bullets retain more mass and expand more than their leaden counterparts. Our data demonstrate that the relative killing efficiency of lead and copper bullets is similar in terms of animal flight distance after fatal shots. Hunters that traditionally use lead bullets should consider switching to copper bullets to enhance human and environmental health.

[Regulations on lead ammunition adopted in Europe and evidence of compliance.](#) 2019.

Rafael Mateo & Niels Kanstrup. Royal Swedish Academy of Sciences. AMBIO A Journal of the Human Environment. <https://doi.org/10.1007/s13280-019-01170-5>.

Abstract: The transition to non-lead ammunition has been enforced by regulations on use and possession of lead shot and rifle bullets. Here we review the scientific and technical literature about this regulatory process in Europe and give some notes of its effectiveness to reduce this source of lead contamination in aquatic and terrestrial environments. Presently, lead shot use has been legally restricted in 23 European countries. Two, Denmark and The Netherlands, have a total ban of lead gunshot use in all types of habitats, 16 countries have a total ban in wetlands and/or for waterbird hunting, and 5 have a partial ban implemented only in some wetlands. The legal regulation of lead bullets is limited to some German regions. This review also highlights the need to know the level of compliance with the ban on lead ammunition and the subsequent benefits for the susceptible species and for game meat safety.

[Lions in the modern arena of CITES.](#) 2018. Hans Bauer, Kristin Nowell, Claudio Sillero & David Macdonald. Conservation Letters. DOI: 10.1111/conl.12444

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.

[An assessment of African lion *Panthera leo* sociality via social network analysis: Prerelease monitoring for an ex situ reintroduction program.](#) 2017. Emma Dunston, Jackie Abell, Rebecca E Doyle, Jacqui Kirk, Victoria B. Hilley, Andrew Forsyth, Emma Jenkins, Rafael Freire. Current Zoology, 63(3), 301-311. <https://doi.org/10.1093/cz/zow012>

Abstract: The wild population of the African lion *Panthera leo* continues to decline, requiring alternate conservation programs to be considered. One such program is ex situ reintroduction. Prior to release, long-term monitoring and assessment of behavior is required to determine whether prides and coalitions behave naturally and are sufficiently adapted to a wild environment. Social network analysis (SNA) can be used to provide insight into how the pride as a whole and individuals within it, function. Our study was conducted upon 2 captive-origin prides who are part of an ex situ reintroduction program, and 1 wild pride of African lion. Social interactions were collected at all occurrence for each pride and categorized into greet, social grooming, play, and aggression. Betweenness centrality showed that offspring in each pride were central to the play network, whereas degree indicated that adults received (indegree) the greatest number of overall social interactions, and the adult males of each pride were least likely to initiate (outdegree) any interactions. Through the assessment of individual centrality and degree values, a social keystone adult female was identified for each pride. Social network results indicated that the 2 captive-origin prides had formed cohesive social units and possessed relationships and behaviors comparable with the wild pride for the studied behaviors. This study provided the first SNA comparison between captive-bred origin and a wild pride of lions, providing valuable information on individual and pride sociality, critical for determining the success of prides within an ex situ reintroduction program.

[Born captive: A survey of the lion breeding, keeping and hunting industries in South Africa.](https://doi.org/10.1371/journal.pone.0217409)
2019. Vivienne L. Williams &, Michael J. 't Sas-Rolfes. PLoS ONE 14(5): e0217409. <https://doi.org/10.1371/journal.pone.0217409>

Abstract: Commercial captive breeding and trade in body parts of threatened wild carnivores is an issue of significant concern to conservation scientists and policy-makers. Following a 2016 decision by Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora, South Africa must establish an annual export quota for lion skeletons from captive sources, such that threats to wild lions are mitigated. As input to the quota-setting process, South Africa's Scientific Authority initiated interdisciplinary collaborative research on the captive lion industry and its potential links to wild lion conservation. A National Captive Lion Survey was conducted as one of the inputs to this research; the survey was launched in August 2017 and completed in May 2018. The structured semi-quantitative

questionnaire elicited 117 usable responses, representing a substantial proportion of the industry. The survey results clearly illustrate the impact of a USA suspension on trophy imports from captive-bred South African lions, which affected 82% of respondents and economically destabilized the industry. Respondents are adapting in various ways, with many euthanizing lions and becoming increasingly reliant on income from skeleton export sales. With rising consumer demand for lion body parts, notably skulls, the export quota presents a further challenge to the industry, regulators and conservationists alike, with 52% of respondents indicating they would adapt by seeking 'alternative markets' for lion bones if the export quota allocation restricted their business. Recognizing that trade policy toward large carnivores represents a 'wicked problem', we anticipate that these results will inform future deliberations, which must nonetheless also be informed by challenging inclusive engagements with all relevant stakeholders.

[Insights on fostering the emergence of robust conservation actions from Zimbabwe's](#)

[CAMPFIRE program](#). 2019. Duan Biggs, Natalie C. Ban, Juan Carlos Castilla, Stefan Gelcich, Morena Mills, Edson Gandiwa, Michel Etienne, Andrew T. Knight, Pablo A. Marquet & Hugh P. Possingham. *Global Ecology and Conservation* 17 (2019) e00538. <https://doi.org/10.1016/j.gecco.2019.e00538>

Abstract: One strategy to address threats to biodiversity in the face of ongoing budget constraints is to create an enabling environment that facilitates individuals, communities and other groups to self-organize to achieve conservation outcomes. Emergence (new activities and initiatives), and robustness (durability of these activities and initiatives over time), two related concepts from the common pool resources literature, provide guidance on how to support and enable such self-organized action for conservation. To date emergence has received little attention in the literature. Our exploratory synthesis of the conditions for emergence from the literature highlighted four themes: for conservation to emerge, actors need to 1) recognize the need for change, 2) expect positive outcomes, 3) be able to experiment to achieve collective learning, and 4) have legitimate local scale governance authority. Insights from the literature on emergence and robustness suggest that an appropriate balance should be maintained between external guidance of conservation and enabling local actors to find solutions appropriate to their contexts. We illustrate the

conditions for emergence, and its interaction with robustness, through discussing the Communal Areas Management Program for Indigenous Resources (CAMPFIRE) in Zimbabwe and reflect on efforts at strengthening local autonomy and management around the world. We suggest that the delicate balance between external guidance of actions, and supporting local actors to develop their own solutions, should be managed adaptively over time to support the emergence of robust conservation actions.

[**Risk of biodiversity collapse under climate change in the Afro-Arabian region.**](#) 2019.

Alaaeldin Soultan, Martin Wikelski & Kamran Safi. Scientific Reports Volume 9, Article Number: 955.

Abstract: For 107 endemic mammal species in the Afro-Arabian region, Sahara-Sahel and Arabian Desert, we used ensemble species distribution models to: (1) identify the hotspot areas for conservation, (2) assess the potential impact of the projected climate change on the distribution of the focal species, and (3) assign IUCN threat categories for the focal species according to the predicted changes in their potential distribution range. We identified two main hotspot areas for endemic mammals: the Sinai and its surrounding coastal area in the East, and the Mediterranean Coast around Morocco in the West. Alarmingly, our results indicate that about 17% of the endemic mammals in the Afro-Arabian region under the current climate change scenarios could go extinct before 2050. Overall, a substantial number of the endemic species will change from the IUCN threat category “Least Concern” to “Critically Endangered” or “Extinct” in the coming decades. Accordingly, we call for implementing an urgent proactive conservation action for these endemic species, particularly those that face a high risk of extinction in the next few years. The results of our study provide conservation managers and practitioners with the required information for implementing an effective conservation plan to protect the biodiversity of the Afro-Arabian region.

[**Evaluating the impacts of protected areas on human well-being across the developing world.**](#)

2019. R. Naidoo, D. Gerkey, D. Hole, et al. Science Advances 03 Apr 2019: Vol. 5, no. 4, eaav3006. DOI: 10.1126/sciadv.aav3006

Abstract: Protected areas (PAs) are fundamental for biodiversity conservation, yet their impacts on nearby residents are contested. We synthesized environmental and socioeconomic conditions of >87,000 children in >60,000 households situated either near or far from >600 PAs within 34 developing countries. We used quasi-experimental hierarchical regression to isolate the impact of living near a PA on several aspects of human well-being. Households near PAs with tourism also had higher wealth levels (by 17%) and a lower likelihood of poverty (by 16%) than similar households living far from PAs. Children under 5 years old living near multiple-use PAs with tourism also had higher height-for-age scores (by 10%) and were less likely to be stunted (by 13%) than similar children living far from PAs. For the largest and most comprehensive socioeconomic-environmental dataset yet assembled, we found no evidence of negative PA impacts and consistent statistical evidence to suggest PAs can positively affect human well-being.

[The impact of wildlife hunting prohibition on the rural livelihoods of local communities in Ngamiland and Chobe District Areas, Botswana.](#) 2019. Israel Blackie & Sandra Ricart Casadevall (Reviewing editor). Cogent Social Sciences, 5:1, DOI: 10.1080/23311886.2018.1558716

Abstract: The community-based natural resources management (CBNRM) program in Botswana was developed to facilitate a partnership between local communities and government for the conservation of natural resources whilst giving local communities usufruct rights to natural resources. This study sought to establish the impact of the wildlife hunting prohibition on the livelihoods of rural communities. Data for this study was obtained through a cross-sectional survey. The findings of the study suggest that the wildlife hunting prohibition which was introduced in 2014 impacted on the livelihoods of rural communities in areas such as employment and income from community-based organizations (CBOs). Prior to 2014, CBOs had found themselves in a rentier-ship status without any direct participation in the operation and management of hunting safaris. The wildlife hunting prohibition, however, did not void existing leases such as leases for hotels and lodges or other natural resource uses such as gathering veldt products. Since its inception, the implementation of the CBNRM program had been largely focused on the utilization of wildlife resources with the result that wildlife hunting had generated revenues quickly and easily for local communities. This paper argues that the

removal of the wildlife hunting prohibition should be considered for wildlife species noted for causing damage and/or whose population has shown an increase such as elephant and buffalo. The loss incurred by rural communities from the damage caused to property and crops by wildlife militates against the perceived earlier successes of the CBNRM program in wildlife conservation and poverty reduction.



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Conservation Frontlines and the free electronic distribution of its publications are funded by the

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