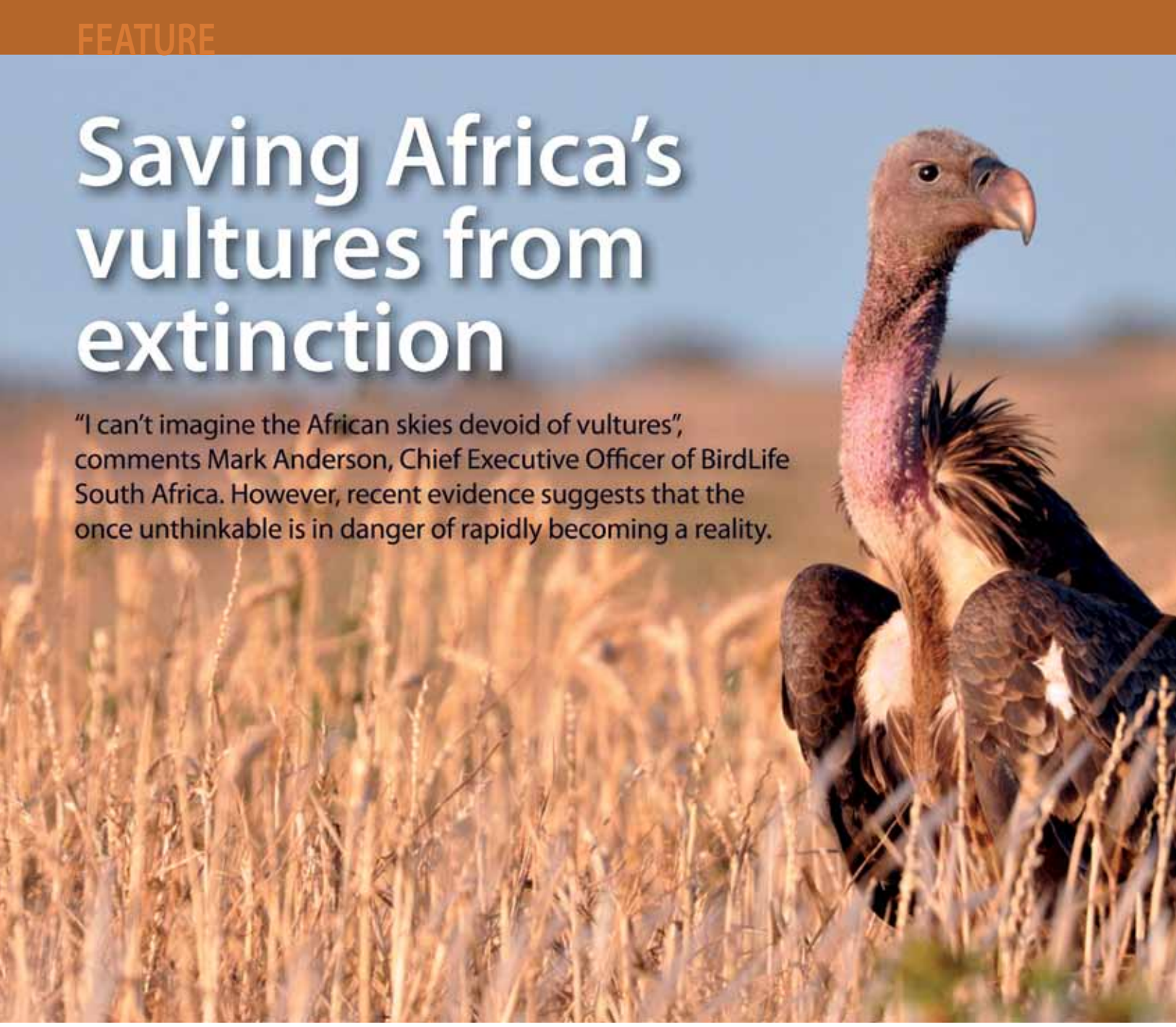
Saving Africa's vultures from extinction



"I can't imagine the African skies devoid of vultures", comments Mark Anderson, Chief Executive Officer of BirdLife South Africa. However, recent evidence suggests that the once unthinkable is in danger of rapidly becoming a reality.

Eleven species of vulture occur in Africa, with 10 of these classified as globally threatened or Near Threatened by BirdLife on behalf of the IUCN Red List. Some, like the Bearded Vulture or Lammergeier *Gypaetus barbatus*, and the Egyptian Vulture *Neophron percnopterus* have a more widespread distribution and are familiar to birders in parts of Europe and Asia. Six species, however, including the Cape Vulture *Gyps coprotheres* and Hooded Vulture *Necrosyrtes monachus*, are found nowhere other than Africa.

A recent report concluded that seven of the eight species of African vulture it assessed had declined at a rate of over 80% over three generations; as a consequence, at least six species would appear to qualify for uplisting to Critically Endangered—the highest level of threat.

It is certainly time to act. We need to act big, and fast. BirdLife is launching its *African Vulture Campaign*, which aims to raise vital funds and awareness for a decade-long, science-based conservation programme for these birds, working alongside local communities, governments and institutions, as well as other conservation organisations, to try and halt—and ultimately reverse—these precipitous declines.

Vultures in Asia—a recent warning

"The vulture decline in Africa follows on from the unprecedented collapse of three species of vulture in South Asia. However, a single factor was responsible for the calamitous state of affairs there. In Africa the situation is very different and definitely more difficult to address, as a multitude of factors are almost certainly responsible", comments Mark Anderson, referring to one of the most dramatic recent declines in any group of birds. In the late 1990s ornithologists began to notice a rapid fall in the populations of three *Gyps* species of vulture in South Asia. Initial speculation that a disease was to blame was eventually discounted after, in 2003, researchers found the actual cause to be a veterinary drug, diclofenac, which was in widespread use as a painkiller in cattle, and happened to be lethal to the vultures that fed upon carcasses contaminated by just small amounts of the anti-inflammatory drug.

"Unknown to many, vultures have rapidly become one of the most threatened families of birds" (Rachid El Khamlichi)

More than a decade on and vulture numbers in India and South Asia have plummeted by 99% from their historic levels. Despite these catastrophic declines, however, the recent situation has started to slowly improve, thanks to an impressive amount of awareness-raising and advocacy work carried out by SAVE (*Saving Asia's Vultures from Extinction*), a consortium of 14 vulture-saving organisations, including several BirdLife Partners, across five different countries: the major turning point came in 2006 when veterinary diclofenac was banned from manufacture in India, with similar bans following soon after in Nepal and Pakistan. A vulture-safe alternative, meloxicam, is now in widespread use.

"Having regular meetings and producing priorities on an annual basis has given SAVE's work a proper impetus. We now also have a blueprint document—basically a recovery plan for vultures to 2025", says Chris Bowden, SAVE's Programme Manager at RSPB. "Africa now needs something like SAVE, so we can to start to address the vulture problem there."

"We don't see diclofenac as a serious threat to vultures in Africa at the moment, but if it does infiltrate we are better placed thanks to our experience in Asia to nip it in the bud. Nonetheless, other types of poisoning remain a huge problem", he adds.

Unintentional poisoning

"The threats differ across the continent, so there's no one-size-fits-all solution to saving Africa's vultures," says Anderson. This view is echoed by Kariuki Ndang'ang'a, who is co-ordinating BirdLife International's work on vultures, as part of its Preventing Extinctions Programme, from the organisation's Kenya offices: "The situation in Africa compared to South Asia is much more complicated, with the threats to vultures varying from sub-region to sub-region."

However, among this lethal cocktail of hazards, conservationists seem largely in agreement about where the primary dangers for Africa's vultures lie.

"Poisoning is the main threat our vultures face, and the majority of vulture deaths seem to be indiscriminate – a by-product of people trying to poison predators and inadvertently attracting vultures to the carcass", says Ndang'ang'a. "It's subjective as the data isn't really quite there yet, but I would put the poisoning of other carnivores, which conversely leads to the killing of vultures, as probably the main threat facing African vultures on a continental scale", agrees Bowden.

The unintentional poisoning of vultures would appear to be the major factor in recent declines. Darcy Ogada's 2015 study found that 61% of all reported vulture deaths (7,819 across 26 countries) were a result of poisoning. Mammalian predators (although themselves much reduced in number) such as lions, hyenas and jackals, find themselves in escalating conflict with people as the human population of the continent inversely increases compared to the available amount of remaining wild places and wild mammalian prey—two factors which are themselves other potential causes of vulture decline. Consequently, livestock farmers—now armed with access to cheap poisons, such as highly toxic agricultural pesticides, notably carbofuran—increasingly turn to using poisoned carcasses to remove these potential predators of their livestock and livelihoods. Other scavenging raptors are also likely to be unwitting incidental victims of poisoning, such as Tawny Eagle *Aquila rapax*.

Feral dogs are also a problem in parts of the continent, with poisoning a popular way to reduce their numbers. "In the Ethiopian capital, Addis Ababa, for instance, you often used to see Hooded Vultures around the city. However, there's a big issue there with stray dogs—people are using poisons to kill them, but not burying the carcasses," says Ndang'ang'a. "As a result Hooded Vultures are being poisoned as by-product."

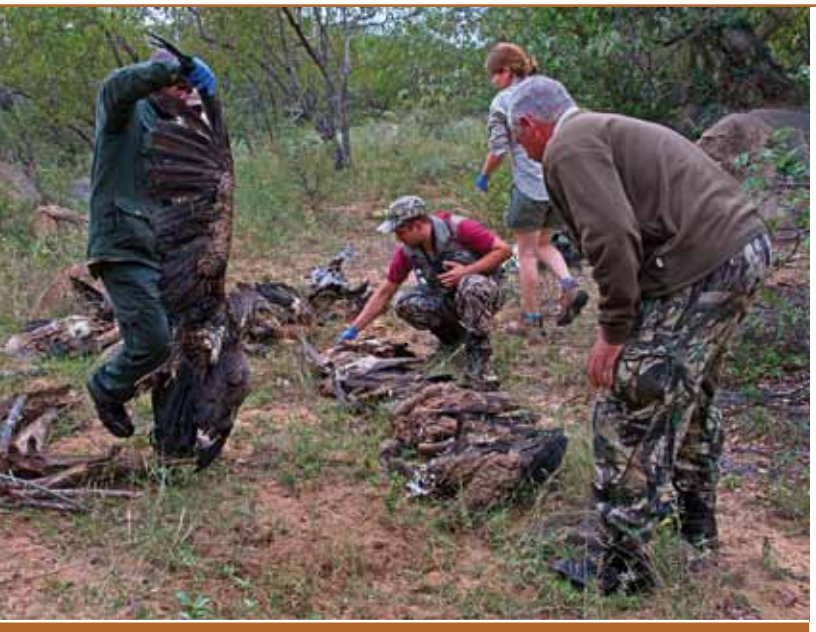
There is an irony in this too, in that a reduction in vulture numbers is likely to result in an increase in the population of feral dogs, if the experience in South Asia is anything to go by. There, a 2008 study estimated that the decline of Indian vultures led to an increase over the period in the feral dog population by at least 5.5 million. It was estimated that this may have resulted in over 38.5 million additional dog bites to people, and more than 47,300 extra human deaths from rabies. Another recent paper found that the absence of vultures led to considerably longer carcass-decomposition times at its test sites, as well as a threefold increase in both the number of mammalian scavengers present at the carcass and the time they spent there. This could well have implications for the transmission of diseases among Africa's threatened wild carnivores, as well as the potential for increasing numbers of rabies cases spread by feral dogs to humans. On top of this, the removal of vultures—the top-level "garbage collectors" of many African ecosystems—could have many potentially major ecological impacts that we are not yet aware of.

Traditional medicine

"In West Africa I'd put the direct harvesting of vultures for traditional medicine as the biggest factor in vulture declines—it appears to be taking place on a frightening scale", says Chris Bowden.

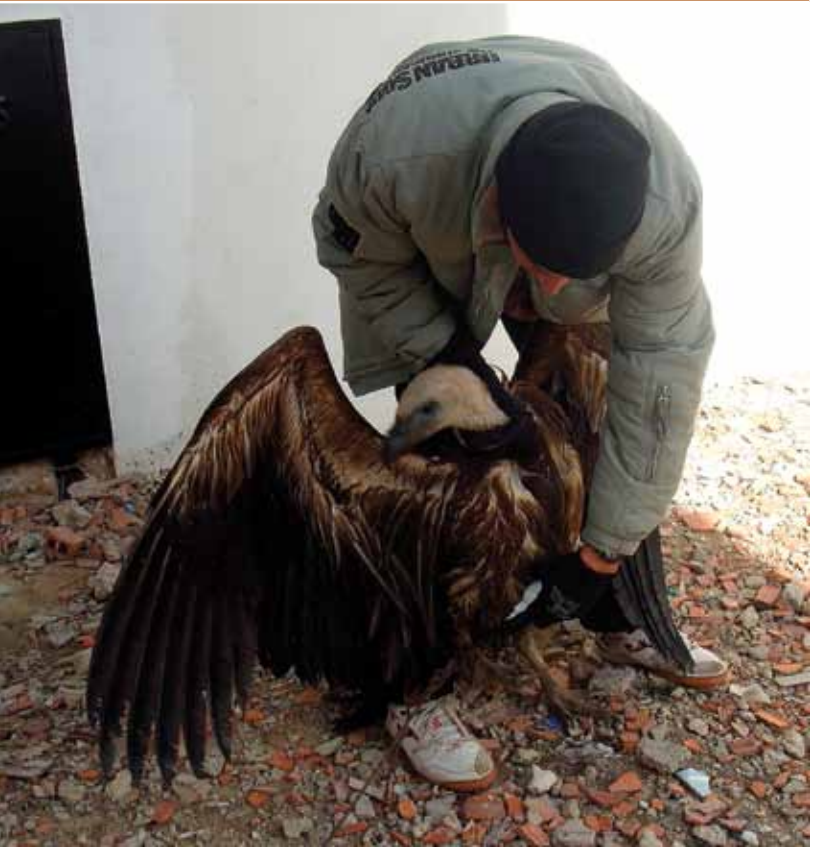
This worrying assertion appears to be backed up by Ogada's recent paper, which found that 29% of the vulture deaths it recorded continent-wide could be attributed to this secretive trade.

Body parts of vultures are used by the traditional medicine industry for a number of purposes, from "curing" various illnesses and ailments (from epilepsy to strokes) to increasing the intelligence of schoolchildren, or offering protection against witchcraft. There are also strong superstitions surrounding the



ABOVE Hundreds of vultures can be poisoned on a single carcass (Andre Botha)

BELOW "If it happens that a vulture is hungry, a catastrophe will occur in the town." West African proverb. Vultures recovery (Mohamed Amezian)



supposed luck-inducing and clairvoyant powers of vultures, meaning that, in particular, the head of the vulture (and the consumption—or smoking within a cigarette—of its brain) is highly prized as an aid to gambling and betting. An ironic potential health hazard to the people later ingesting these body parts in order to improve their health or luck is that poison is the means often used to obtain the vultures.

Although the heartland of this traditional medicine exploitation of vultures is West Africa, it is also a significant issue in South Africa. For instance, in eastern South Africa annual sales to consumers of vulture parts are estimated at US $120,000. "In South Africa I don't think the use of vultures in traditional medicine – as a means of people thinking they will become clairvoyant, for example—is a new thing. It's been going on under the radar", says Ndang'ang'a.

"In West Africa, however, the stakes are really much higher—but even there they're still not really well known or understood", he adds. "This July, for instance, a member of staff from our partner in Ghana was working on another BirdLife project in the north of the country. During discussions with local villagers, in answer to the question 'Have you noticed any environmental changes in recent times?' the reply came that they no longer see any vultures around their villages. He followed this up with a farmer who believed it was due to killing for juju."

The staff member from the Ghana Wildlife Society (BirdLife Partner) was subsequently taken by the farmer to a local market in Tamale, in the north of the country, where many animal parts were on sale, including a vulture head for US $60 and a complete vulture carcass for $150. Likewise, a recent paper on vultures and traditional medicine in Nigeria found that 93% of traditional traders interviewed across markets in northern Nigeria had vulture body parts available for sale; 90% of these parts belonged to Hooded Vultures, thought to be the most easily obtainable species due to its proximity to human habitations. With declining vulture populations the prices that traders have to pay to hunters for vultures will inevitably increase; a cross-border trade in the birds is already seemingly now in operation between Nigeria and neighbouring Cameroon. Other more difficult-to-acquire species are also likely to be targeted alongside the predominant Hooded Vultures. When asked how you begin to address the issues surrounding traditional medicine, Ndang'ang'a laughs ruefully. "That's a very complicated one. We've talked to our partners from areas where this is a real problem to see how they think it can be tackled. Staff at the Nigerian Conservation Foundation (BirdLife Partner), for instance, told us that it's vital to start by consulting the players – those people who trade in vulture parts. It will be hard because obviously they're secretive about what they do, but we need to get a forum with them to try and better understand how the trade works. It's also important to try to form local networks of conservation groups, who will be able to monitor the situation more effectively themselves."

Other threats

"The third most significant threat to African vultures appears to be poachers deliberately targeting them so they don't give away the presence of their illegally killed big game carcases", says Chris Bowden.

This high-profile problem has only come to light recently, with poachers poisoning carcasses specifically to remove local vulture "sentinels of the skies" that could otherwise reveal their illegal activities to the authorities. Between July 2011 and 2014 at least 10 such poisoning incidents were discovered, which resulted in the deaths of at least 1,500 vultures across six southern African countries (Ogada, 2014):—a large factor in the scale of the vulture decline is how many individual birds can be affected by just a single poisoned carcass. And increasing prices of items such as elephant ivory and rhino horn may well mean that this type of deliberate vulture-killing increases in future as the stakes are raised for poachers. Perhaps most worryingly is the fact that this targeted

poisoning is taking place in seemingly protected areas such as game reserves and national parks, highlighting the fragile levels of protection that such designations can actually provide. But currently, African vulture populations remain primarily in protected areas in West Africa.

Wider threats to vultures are many and diverse – and equally difficult to quantify. However, they are undoubtedly adding to vulture declines in localised parts of Africa. These additional threats include the electrocution of vultures as a result of flying into power cables, and collisions with wind turbines. And of course any declines are exacerbated because vultures are long-lived, slow-breeding birds that take several years to reach maturity and usually only fledge a single chick every one or two years.

Other additional factors include shortages of food for vultures (due to a decline in available mammalian carcasses), a growing lack of suitable habitat, and an increase in human disturbance. "The issue of habitat loss is complicated, but is happening across the continent, with areas of savannah and other prime vulture habitats disappearing. In other places there is an issue with human disturbance:—for example, in Kenya there's a cliff-nesting area for vultures close to Nairobi: an Important Bird Area called Hell's Gate National Park. Nearby geothermal electricity projects there have caused disturbance to the park's vulture colonies. Things like this could well be happening in other places without us knowing", says Ndang'ang'a.

What can be done?

Although the situation for Africa's vultures currently looks bleak, it's by no means insurmountable. Already we have seen in South Asia that declines, which on the face of it were even larger than those currently taking place in Africa, can be addressed. "It's a huge problem, but we have to start somewhere. To begin with we have to identify some particular hotspots for vultures where we think we can make a demonstrable difference—"easy victories" if you like—and where we can learn lessons going forward", says Ndang'ang'a.

BirdLife's vulture campaign will initially work to improve our knowledge of the continent's vulture populations and their trends, as well as gaining a better understanding of how the various threats coalesce and contribute to the catastrophe. "Easy victories" might include working on the issue of incidental vulture poisoning in Addis Ababa as a result of feral dog poisoning, or working with livestock farmers in Kenya's Masai Mara to introduce alternative methods of livestock protection that don't involve laying poisoned carcasses for predators.

"We also need to try and provide data about the value – the ecosystem services – that vultures provide. Because figures stick. But unless something can be directly seen people tend not to notice such advantages", Ndang'ang'a goes on to say. "Most of the time in Africa people's impression of vultures is that they are just ugly birds. There's not a tradition, like there was in India, for instance, where it was widely appreciated that vultures were important for cleaning up animal carcasses. So we also need to do a lot of work to improve their image."

"Ornithologists and bird conservationists are not going to save African vultures on their own", adds BirdLife South Africa's Mark Anderson. "A multi-disciplinary team—including economists and social scientists—needs to be assembled to identify the threats, determine the solutions, and develop an appropriate strategy. The BirdLife Partnership in Africa is ideally placed to tackle this crisis, as it has representation across the region, people with appropriate expertise on its teams, credibility at all levels from communities to national governments, and a track record of saving threatened birds."

As well as its initial progress in stemming what threatened to be an inexorable decline of vultures in South Asia, BirdLife International can also point to recent successes in another of its campaigns to save a long-lived, slow-breeding, enormous-winged group of endangered birds: its Save the Albatross campaign. For instance, numbers of these iconic seabirds being killed as a result of flying into cables used by the South African hake fishery have been reduced by 99% since 2005, thanks to work by the Albatross Task Force.

Perhaps the last word should go to BirdLife International's Chief Executive, Patricia Zurita: "If we let Africa's vultures slide towards extinction—birds that clean up rotting carcasses and stop the spread of diseases—what does it say about our ability, or our desire, to conserve anything? Yet, even if the economic and human health arguments for helping Africa's vultures and preserving their billion-dollar provision of ecosystem services are not compelling enough, surely the sight of these magnificent birds of prey with their massive wingspans and heaven-soaring flight, should be enough to make us want to act."

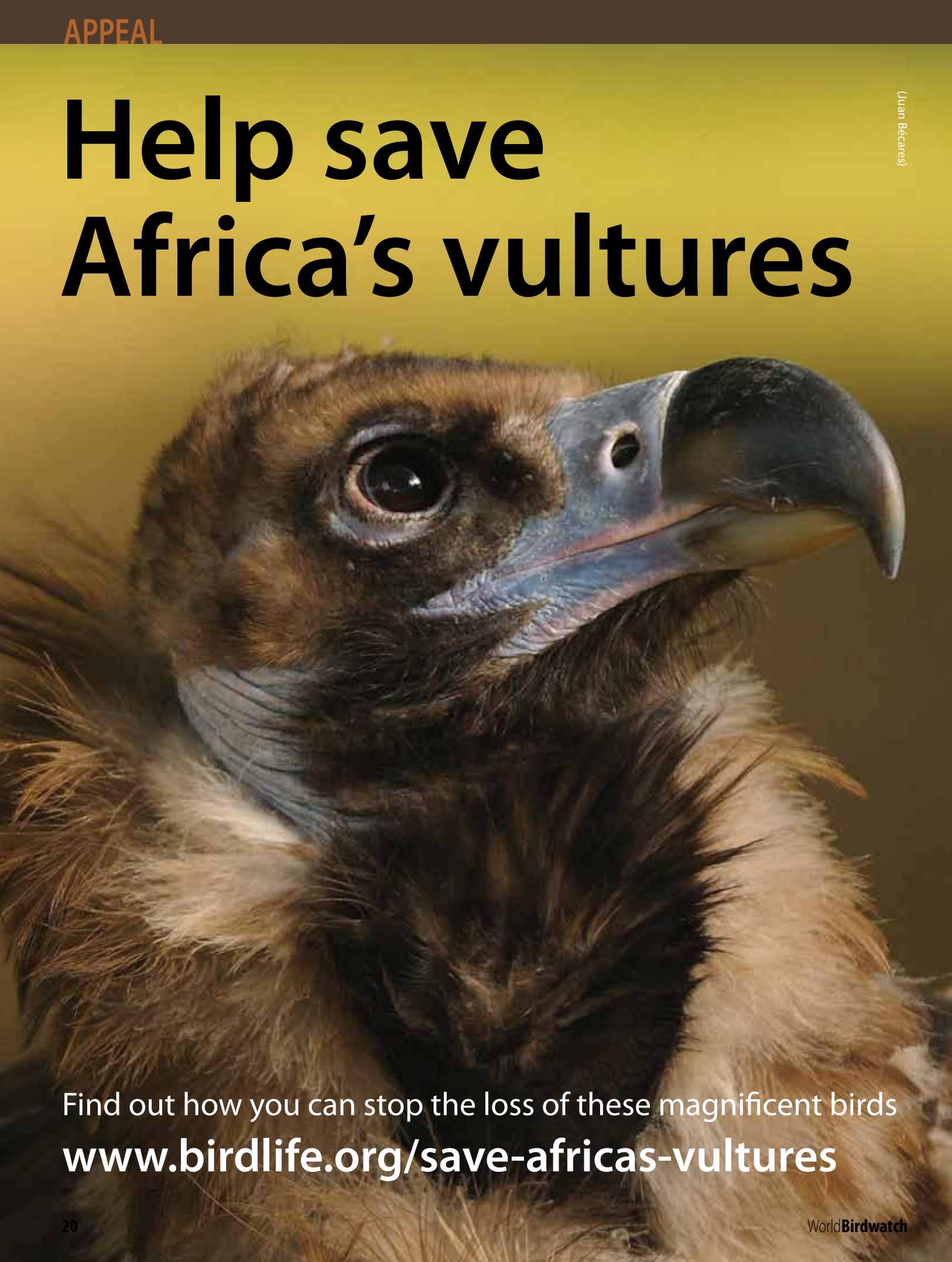
Please help us make a difference by supporting BirdLife's *African Vulture Campaign*. There is still time, for now. **www.birdlife.org/save-africas-vultures**.

WB

by Ed Parnell

Help us re-brand Nature's clean-up crew. Help us save the unsung sentinels of the skies. (Ian White)

Help save Africa's vultures



(Juan Bécares)

Find out how you can stop the loss of these magnificent birds

www.birdlife.org/save-africas-vultures