

Vulture crises in South Asia and West Africa and monitoring, or the lack thereof, in Africa

There is presently much interest in the world's vultures, probably more so than at any time in the history of vulture research and conservation. It is sad, however, that it has taken the near extinction of the California Condor and more recently the almost total collapse of the population of three species of Asian vultures for the world's ornithological and conservation community to turn their attention to vultures. Unfortunately, this is not yet the case in Africa!

Initially, African ornithologists and conservationists did not spare the Asian Vulture Crisis much thought because after-all "our vulture populations are still okay"! Granted, some workshops were convened, by Derek Pomeroy and colleagues in Uganda, by Leon Bennun and Munir Virani in Kenya, and the Vulture Study Group in southern Africa. These meetings were held when there was still uncertainty about the cause of the population collapse of Asian vultures. If the mortality factor was an infectious disease it could spread to African vultures. Because the Eurasian Griffon migrates in and out of Africa and extends far south (to Senegambia, Chad, Ethiopia and Kenya), where it interacts at carcasses and breeding and roost sites with other *Gyps* vultures, such as the Rüppell's Griffon and the African White-backed Vulture, our vultures might also be affected (and become infected). Furthermore, because of the overlapping ranges of *Gyps* vultures across Africa, even as far south as the small Cape Griffon breeding colony at Potberg close to the southern tip of Africa, all three African *Gyps* species would be vulnerable. Occasional Rüppell's Griffons also wander far south. At the workshops various recommendations were made, amongst which was the initiation of vulture monitoring projects across Africa. There is probably little that could be done if African vultures were infected by an infectious disease, but it would certainly help if we knew that there was a problem. Many of us were soon to realize that setting up extensive vulture monitoring projects in Africa is far easier said than done. One thing that the workshops and meetings did highlight, however, was how little vulture research and monitoring is underway in Africa, especially outside southern Africa.

Well, it turned out that the mortality factor in Asia was not a disease, but that a veterinary drug, diclofenac, was responsible. For their efforts and determination to determine the reasons for the mortalities, The Peregrine Fund and the Royal Society for the Protection of Birds, as well as numerous organizations in Pakistan, India and Nepal, need to be commended. The pronouncement at the World Working Group on Birds of Prey and Owls conference in Budapest, Hungary, in 2003, that diclofenac was responsible for the vulture mortalities was, I believe, one of the most significant raptor conservation events ever. Not too dissimilar to the publication of Rachel Carson's book "Silent Spring"! Who would have

thought that a veterinary drug could have such an enormous impact on at least three species of birds. The battle in South Asia is however far from over and much needs to be done to remove diclofenac from the veterinary and pharmaceutical shelves, to find alternative drugs, and to ensure that viable captive populations of the three vulture species are established. Quite sadly, it may even be too late for the Slender-billed Vulture *Gyps tenuirostris*.

I suppose that many African (and European) vulturephiles breathed a sigh of relief when it was revealed by Lindsay Oaks that a veterinary drug and not an infectious disease is responsible for the Asian vulture catastrophe. One prominent African raptor conservationist proclaimed that “At least our vulture populations are safe!” He added that African vultures are present in large numbers, very numerous across the African continent and free from many of the threats that vultures face in other parts of the world. Investigations revealed that, although several non-steroidal anti-inflammatory drugs (NSAIDs) are used by veterinarians in Africa, especially southern Africa, diclofenac is not used to treat domestic livestock. But we still do not know whether other NSAIDs are equally harmful to vultures; a combination of two such drugs (ketoprofen and carprofen) killed an African White-backed Vulture at the San Diego Zoo in 2003.

Our complacency in Africa has however been short lived! Recently Jean-Marc Thiollay and Guy Rondeau repeated raptor surveys that had been conducted thirty years previously in West Africa. Using the same methods, the same observer (Jean-Marc), more than 7000 km of road transects were driven and every raptor (and vulture) observed was counted. The results, published in *Vulture News* 51 and presented at the Pan African Ornithological Congress in Tunisia in November 2004, are very disturbing! The populations of Egyptian Vultures, African White-backed Vultures, Rüppell’s Griffons, Lappet-faced Vultures and White-headed Vultures in West Africa have declined by 95% during the past three decades! The Hooded Vulture, previously so common in West African towns and cities, where it lives commensally with humans, has not suffered quite as severely, only showing a 45% decline in numbers! Interestingly, the Hooded Vulture decline has not been uniform. In some areas, there has been a total population collapse, while in other areas the species’ status is apparently almost unchanged.

So, not only does South Asia have a crisis, but there is one much closer to home, here on the African continent. As was initially the case with the Asian Vulture Crisis, it is not known what the reasons are for the disappearance of vultures in West Africa. Various suggestions have been made, but clearly lots of research needs to be done to determine which mortality factors are involved. In parallel, the remaining populations urgently need to be conserved.

Of great concern, and as emphasized by Guy Rondeau in his editorial in *Vulture News* 51, is that the West African vulture decline has gone by undetected! Since the late-

1960s and early-1970s very little (if any) vulture research and monitoring has taken place over much of West Africa. If such work had been done, the almost total absence of breeding Rüppell's Griffons at the Gandamia cliffs in Mali (historically one of the largest colonies in Africa) and the disappearance of African White-backed Vultures from large parts of the Sahelian savannah would surely have been noticed. It is also not known when the decline took place. Has the population progressively declined in numbers over the past three decades or, alternatively, have there been irregular, more severe, mass mortality events?

As with several other African ornithologists, I have developed a love for vultures and shudder to think about a continent devoid of these magnificent scavenging birds. Vultures fulfil an extremely important ecological role. They keep natural and man-made habitats free of carcasses, waste and even human excrement, restrict the spread of diseases (such as anthrax and botulism), are of cultural value to African communities, and of course they have important eco-tourism (bird-watching) value. African vultures are threatened by several anthropogenic factors (which are probably different in the different regions of Africa), including (in no particular order): poisons, declining food availability, habitat degradation, powerline electrocutions, harvesting for traditional medicine and for food, disturbance at breeding sites, drowning in farm reservoirs, and direct persecution. The odds are severely stacked against vultures, especially outside the large East and Southern African conservation areas.

The problem is that, with very few people out there watching vultures, let alone counting them, how will we determine population trends and be alerted about declining populations. With the lack of monitoring of vultures in Africa in mind, I decided to convene a Round Table Discussion (RTD) at the recent Pan African Ornithological Congress, held on the Island of Djerba in Tunisia from 20 to 25 November 2004. The RTD was optimistically entitled "Development of an integrated and standardized vulture monitoring programme in Africa", but realistically I suppose the minimum that could be achieved was the creation of an awareness about the lack of research, monitoring and conservation that is being undertaken in Africa.

My concerns were founded on the following: (1) of the eleven species of vultures that occur in Africa, eight are endemic or near-endemic (and therefore not, or only marginally, found beyond the continent's borders) and thus their conservation rests in the hands of Africans (Table 1), (2) of these endemic/near-endemics two species are "Vulnerable" (BirdLife International 2004), (3) although some vulture species have relatively large populations, the numerical status of others is precarious (Table 1), (4) the Asian Vulture Crisis has shown that without proper monitoring, a population crash can take place virtually undetected, and (5) Jean-Marc Thiollay and Guy Rondeau's study has shown that vultures in West African are in serious trouble. In particular, it is my contention that there is

some urgency in initiating Pan African vulture monitoring projects, especially as there is very limited knowledge (spatial distribution, population sizes, breeding success) about all African vultures (perhaps except for the Cape Griffon). A monitoring project is important and necessary to: (1) determine population trends, (2) identify problems and detect sources of mortality, and (3) evaluate the success and effectiveness of conservation measures.

The RTD was attended by 27 conference delegates, including a few prominent African and European vulture researchers and conservationists and senior representatives from BirdLife International.

As an introduction, I gave an overview of the status of African vultures and highlighted the need for an African monitoring programme. I proposed that an African vulture monitoring project should involve the following: (1) development of one (or perhaps two or three) simple, standardized, coordinated, systematic and cost-efficient monitoring techniques, (2) monitoring of the colonially nesting *Gyps* vultures (at least two visits a year to get an indication of colony size and breeding success), (3) surveillance of the health of vultures [non-invasive monitoring (e.g. collection of faeces, feathers), opportunistic sampling of dead vultures and trapping of live birds (for example, for toxicological and parasitological studies)] and (4) counts of vultures at migration entry points into Africa (such as of Eurasian Griffons at the Straits of Gibraltar and at the Middle East land bridge and of Egyptian Vultures at the Straits of Gibraltar, the Straits of Sicily to Cap Bon, Eilat and Suez, and across the Bab al Mandab Straits to Djibouti).

There are various reasons why little vulture monitoring is being undertaken in Africa, including: lack of qualified observers, limited funding, logistic difficulty of being able to conduct research and monitoring in Africa, inaccessibility of some breeding sites, and instability in some parts of Africa. When projects are undertaken they are often not sustained and there are several reasons for this. A particular problem in Africa is that researchers, often expatriates, are often only active in an area for a short while, and monitoring projects should therefore ideally be carried out by African ornithologists. Unfortunately, many studies, even short-term ones, as well as important anecdotal observations, are not published and therefore not made available to the broader raptor research and conservation community.

During the RTD it was revealed that some local vulture monitoring using different methodologies takes place in Africa. In Southern Africa, in particular, Cape Griffons are monitored at *c.* 14 breeding sites, African White-backed Vultures at *c.* 4 sites and Lappet-faced Vultures in at least three counties. Thanks to Munir Virani and Simon Thomsett, some work is also being undertaken in Kenya, including the monitoring of Rüppell's Griffons at the Lake Kwenia breeding site. In Uganda, Derek Pomeroy and his colleagues have initiated a carcass monitoring programme (i.e. counts of vultures at carcasses) and the initial results have been published in *Vulture News* (50: 29-33). As far as I am aware, in Tanzania and

Ethiopia, no vulture work is being conducted, with the last work in the former country being a recent helicopter survey at the Rüppell's Griffon breeding site in the Gol Mountains. Some vulture work was recently undertaken by Afrique Nature International's Guy Rondeau (see *Vulture News* 51). Incidental records are also kept by various expatriates working in several West African countries (such as by Clive Barlow in The Gambia). Several North Africans (from Tunisia, Algeria and Morocco) who attended the vulture RTD (or who I spoke to at the PAOC) indicated that a limited amount of vulture conservation work and monitoring had commenced in their countries, which is of course good news. Importantly, these ornithologists and conservationists were keen to initiate additional projects.

Back to the West African Vulture Crisis, however, where there is much urgency in addressing the situation in this part of our Continent. Guy Rondeau believes that the following are priorities: (1) produce a West African Regional Vulture Alert (alert local governments, regional agencies and institutions, scientific community, donors, etc., about the dire predicament of vultures in West Africa), (2) complete Jean-Marc Thiollay's census (in Senegal, northern Côte d'Ivoire and Ghana, and eastern Niger) and initiate a census in southern Mauritania and northern Guinea, Togo, Benin, and Nigeria, (3) revise the global conservation status of vultures (surely some African vulture species deserve a higher status than "Least Concern"?), (4) determine the importance of the various mortality factors (including poisons and persecution), (5) implement education, awareness and conservation actions (including the establishment of vulture restaurants) and (5) survey the relic vulture breeding colonies, especially the Rüppell's Griffon colony at the Gandamia cliffs in Mali, as well as assess the status of the very small colonies located at Pagou, Tambarga and Gobnangou (near Arli National Park, Burkina Faso), at Kotorkoshi (north-west Nigeria) and in the Tiguidit cliffs (central Niger). Easier said than done, however! Afrique Nature International plans to conduct a regional conservation programme but, unless funding is urgently obtained, this extremely important work will not get off the ground.

I was probably very optimistic when thinking what could be achieved at the RTD, but in retrospect I believe that the improved awareness created amongst the delegates was well worth the time and effort. Several conclusions were made: (1) a pan-African vulture monitoring programme should be established (possibly to be implemented by BirdLife's African partners), (2) a document that describes the recommended vulture monitoring methods (road surveys, carcass counts, and breeding surveys) needs to be drafted, and (3) an African vulture e-mail discussion group should be formed. Some delegates were also of the opinion that the possibility of establishing an international vulture specialist group (perhaps under the IUCN) needs to be investigated.

So, in conclusion, the Asian Vulture Crisis and more recently the West African Vulture Crisis are warnings that we really need to get our act together in Africa. Several

urgent actions are necessary, several of which are outlined here. Urgent conservation measures need to be implemented without delay, before the populations in West Africa (and possibly elsewhere) reach critically low levels. Vultures are far too important for us to sit back and assume that all is well. A well-planned vulture research, monitoring and conservation programme needs to be implemented without delay. After all, Africa without vultures is just too unimaginable.....

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Table 1. The status and population sizes of African vultures.

Common name	Status ¹	Red Data Book ²	Population Size ³	
			Pairs	Individuals
Egyptian Vulture	Widespread	LC	7700	20,000
Bearded Vulture	<i>G. b.</i>	LC	1400	4600-7000
	<i>meridionalis</i> is			
	endemic			
Cape Vulture	Localized	V	4400	12,000
	endemic			
Rüppell's Griffon	Widespread	LC	11,000	30,000
	endemic			
Eurasian Griffon	Localized	LC	150-200	4400 (migrants)
	breeding			
	resident and			
	visitor			
White-backed Vulture	Widespread	LC	100,000	270,000
	endemic			
White-headed Vulture	Relatively	LC	2600-4700	7000-12,500
	widespread			
	near-endemic			
Lappet-faced Vulture	Widespread	V	2700	8000
	near-endemic			
Cinereous Vulture	Sporadic	NT	Non-breeding vagrant	
	visitor			
Hooded Vulture	Widespread	LC	2-333,000	750,000+
	endemic			
Palm-nut Vulture	Widespread	LC	80,000	240,000
	endemic			

¹Endemic (i.e. distribution restricted to Africa)

²LC=Least Concern, NT=Near Threatened, V=Vulnerable (BirdLife International 2004)

³From Mundy *et al.* (1992)