

CONTENTS

VOLUME 34 (3) 2001

EDITORIAL. T. O. OSBORNE	1
SIMMONS, R. E. Sandwich Harbour report - April 2001	2 - 3
SIMMONS, R. E. Sandwich Harbour report - July 2001	3 - 5
FREDERICH, G. & T. Wetland birds of Tsutsab Vlei and surrounding waterbodies	6 - 14
VON LUDWIGER, K. The nesting chronology and breeding success of the Black Eagles of Falkenstein ...	14 - 19
HALLAGER, S. Saving Gompou: How zoos help Kori Bustards in the wild and how field biologists help Kori Bustards in zoos. ...	20 - 23
SIMMONS, R. E. A helicopter survey of Cape Vultures, Black Eagles and other cliff-nesting raptors around the Waterberg Plateau, Namibia	23 - 29
BIRD OBSERVATIONS/SHORT NOTES	30 - 32

Editorial

I am writing this while sitting on my stoep and watching 6 of the 10 endemic Namibian birds flying past or hunting for food amongst the mushara bushes, some of which still have green leaves left. The dry season in Namibia is so pronounced that it is surprising that more of the local birds do not leave for the greener places in Africa. I recently headed east to watch the solar eclipse and kept going east until I hit the Malawi-Mozambique border. If you want to know where all the Paradise Flycatchers migrate to, just visit the rift valley on the shores of Lake Malawi and they will be one of the commoner birds. There is a cold dry season in Malawi but it can rain any month of the year so the bush retains much of its greenery. Surrounded by highlands on most sides, the lake has numerous rivers into it which also provide for evergreen vegetation.

Malawi is a rather small country so it has no endemic species but does have several endemic races which occur on isolated mountains. I was interested in seeing the Brown-breasted Barbet but the dry season was not the time to look for this bird in Liwonde National Park. One fortunate thing Namibia has in its favour is its small human population and thus slow rate of deforestation. I tried to look for the White-winged Apalis in Thyolo forest reserve but failed to find the bird. I doubt that the bird will be there when I next return as the forest was just a remnant and was in the process of being totally cleared during my visit. However, other areas like Mount Mulanje were excellent and birding there was very good. I had forgotten how difficult birding is in montane forest compared to our open dry scrub vegetation. If you cannot recognize bird calls then you will see very few species. The forest is full of skulkers who call from a few meters away, flit around in the dense undergrowth and defy all attempts to bring them out for a view. Just as your patience is wearing thin, they fly across the trail and disappear forever.

The solar eclipse was worth the 2000 km drive and since there will be another one in Namibia on 4 December 2002 I strongly encourage everyone to try and see it. Kate Sharpe and I are willing to lead a bird club outing to Katima Mulilo next year for a combined bird watching and solar eclipse event. That part of the Caprivi is safe to visit and offers many species not seen in the rest of the country. Stay tuned to the Bird Call for specifics on the trip.

Despite the recent success in breeding however, the species is not self-sustaining in US zoos and periodic imports of either wild caught birds or captive born birds are still needed to maintain a healthy gene pool. If US zoos are to import captive born birds, the only active breeding center for the species outside the US is NARC. Birds there however, are of southern African descent (Ramadan-Jaradi, 1991). Before birds are imported from NARC, it is important to look at the genetic makeup of the two populations to determine if breeding should or can occur.

Working together

Prior to my visit to Namibia, blood samples were collected from nine kori bustards at the SNZP which are of East African descent. While obtaining blood samples from kori bustards at the zoo was hard, it was not as challenging as obtaining blood samples from wild kori bustards, which first had to be located and then captured.

Fortunately, Etosha National Park has a large number of kori bustards with road counts yielding one bird every 16.7 km (Osborne, 1998). And because Tim and Laurel have caught over 100 birds in four years, catching 10 kori bustards for our study seemed relatively easy (to me).

Once a bird was located, a monofilament gillnet measuring 100 m x 3 m with a mesh size of 150 mm was erected between several trees and the bird was slowly guided into the net by our vehicle. Once in the net, the bird was quickly untangled and moved to a shady area. Within 15 minutes, morphometric measurements and weights were taken, wing tags and leg bands were affixed, and fecal samples were collected when available. Some birds were affixed with 60-gram radiotags. Finally, a small amount of blood was taken for the DNA study and the bird was released. Sometimes the bird simply walked away and sometimes it flew. And when it did fly, seeing the worlds heaviest bird take to the air was truly an amazing sight.

Conclusion

DNA from the blood samples I brought back from Namibia have been analyzed in the SNZP Genetics Laboratory and compared with the DNA from the zoo

birds. The results are still pending. Whatever the conclusion, it is important for zoos and field researchers to continue to work together to learn more about kori bustards. Only by working together, can these majestic and captivating birds be protected and saved for future generations.

Literature Cited

- Barnes, K. 2000. The Eskom Red Data Book of Birds of South Africa, Lesotho and Swaziland. Birdlife. South Africa.
- del Hoyo, J., Elliot, A. & J.Sargatal. (eds.). 1996. Handbook of the Birds of the World. Vol. 3, Hoatzin to Auks. Lynx Edicions, Barcelona.
- Hallager, S. 2000. International studbook for the kori bustard. Smithsonian National Zoological Park.
- Osborne, T. & L. Osborne. 1998. Home on the range. Africa Birds and Birding 3(3): 18.
- Ramadan-Jaradi, G. & M. Ramadan-Jaradi. 1991. Captive breeding of the Kori Bustard (*Ardeotis kori*) in Al Ain Zoo. Zool. Garten 61: 238-288.
- Urban, E., Fry, C.H. & S. Keith (eds). 1986. The Birds of Africa Vol. II. Academic Press, London.

A helicopter survey of Cape Vultures, Black Eagles and other cliff-nesting raptors around the Waterberg Plateau, Namibia

R.E. Simmons

*Ornithologist, National Biodiversity Programme,
DEA, Ministry of Environment & Tourism, Private Bag 13306, Windhoek
harrier@iafrica.com.na*

The Waterberg Plateau Park is a state-protected sandstone plateau area in north-central Namibia surrounded by the Waterberg Conservancy. The park is important in the ornithological world as it is the only place in Namibia where Cape Vultures *Gyps coprotheres* are known to breed (Brown 1985). The Cape Vulture has declined in numbers and stopped breeding in about 1995 (Simmons & Bridgeford 1997) despite the continued provisioning of uncontaminated food. According to monitors at the vulture restaurant on the top of the Plateau, a minimum of seven birds still frequent the carcasses and offal put out by Ministry of Environment

and Tourism staff. The maximum number of birds is suspected to exist at the colony is 11 birds, 10 adults and one subadult (M. Diekmann pers. comm.). The Waterberg colony is an outlier from the core distribution of the Cape Vulture 1000 km southeast in the nearest breeding colony in Botswana (Mundy *et al.* 1997). Since the distance is so vast the likelihood that birds from elsewhere will "re-seed" this dying colony are remote but not impossible.

There are many suspected causes for the demise of Namibia's Cape Vultures which are showing healthy populations in Botswana and South Africa (Borello & Borello 1997, Benson 1997 and Boshoff *et al.* 1997). The two main suspected reasons for the decline are the continuing change in habitat suitability and continuous (and even increasing) poisons in its core foraging range around the Waterberg (Brown and Cooper 1987). Tree canopy cover promoted by over-grazing and lack of fire in the areas below its cliffs has increased to almost 100% from a very patchy distribution 100 years ago. Since these vulture thrive in areas where open montane grasslands and savanna occur (Mundy *et al.* 1982) and their heavy wing loading handicaps them during take off and landing in thick bush, they are assumed to be at a disadvantage by the bush encroachment. This means that since they have to forage further afield to areas of open ground it is increasingly likely that birds will come into contact with more poisoned carcasses, laced by farmers unconcerned about the fate of Namibia's last Cape Vultures. Indeed in June 2001 two poisoning incidents in which 17 and 6 vultures (mainly Whitebacked Vultures *Gyps africanus*) were killed just south of the Etosha National Park indicates that poisoning is still very prevalent within 150 km of the Waterberg (W. Versfeld pers. comm.).

The aim of this survey was two-fold. First to locate and count the remaining Cape Vulture population in the Waterberg, during August when they traditionally have large chicks (Simmons & Bridgeford 1997), and second to survey the cliffs for other species that breed in this park, particularly the southern African subspecies of the Booted Eagle *Hieraaetus pennatus minisculus* (Yosef *et al.* 2000) and the Peregrine Falcons *Falco peregrinus* (Brown 1985, Brown & Cooper 1987).

Methods

A 2-seater squirrel helicopter piloted by D. Thorn was chartered for a 2-hour flight (06h30 to 08h30) around all of the cliffs of the Waterberg Plateau Park on 14 August 2001. A Garmin GPS II mapped the flight path taken at a speed of approximately 50 - 60 km/h. For each nest site species, contents and coordinates to 1000th of a decimal minute were recorded. Where possible a photograph was taken of the nest and surrounding area with a 50 mm lens. The coordinates of nest sites were later downloaded onto the recorded flight path and a map was drawn of the entire plateau including the nest sites. These were compared with a map marked in a 1983 survey (Brown and Cooper 1987) who undertook a first survey of the Waterberg cliffs in 1985, 16 years previously. Essentially similar methods were used in the two survey but differences occurred in the number of observers (1 2001, 2 in 1983) plus incidental observations by the pilot, time of year (August 2001, March in 1983) average speed (about 20 km/h faster 2001) and length of flight (2 h 2001, 3.7 h in 1983). In both surveys the helicopter surveyed from a minimum distance of 50 m, next to or slightly above the cliff faces. Each survey started at sunrise and each searched for falcons, eagles and vultures. In 2001 Rock Kestrels *Falco tinnunculus* were numerous but not recorded.

Results

Cape Vultures

No Cape Vultures were seen during the entire survey. Careful searching at the breeding cliffs (20°24' S, 17°13'E) which were flown shortly after sunrise indicated whitewash (faeces) on the cliff but no roosting birds. Similarly on the other side of the Waterberg plateau near the tourist camp where birds occasionally roost (T. Cooper pers. comm.) whitewash was present but no birds were seen. At both sites it was too early in the morning for any vultures to have left the roosts. Up to 7 birds have been seen at the vulture restaurant during weekly visits by M. Diekmann (pers. comm.). She estimates a possible maximum of 11 birds down from the high of 25 birds in 1991 (Berry 1995) and about 15 birds on the cliffs after the feeding scheme commenced in 1986. My survey confirms that Cape Vultures have declined from 5 active nests in 1986 to none in 2001.

Black Eagles

The survey did reveal, however, a healthy population of Black (Verreaux's) Eagles *Aquila verreauxii*. A total of eight nest sites were observed with 3 active nests. Two of the nests contained large well-feathered gold-black nestlings while the third had a smaller white nestling agile enough to run across the nest. The nests with larger nestlings were remarkably close, 1 km apart, on the seldom-visited south-western end of the Waterberg (Okosongomingo). They were both on the highest, steepest cliffs (approximately 80 m high). Five nest sites were inactive, one had a large stone on the nest and adults in the vicinity, and another was inactive with adults in attendance. Three nests were devoid of either adults or young. Two nests were on the northwest side and six nests were on the southeast side, the side from which the prevailing winds occur (Brown & Cooper 1987). Because of limitations on helicopter time closer inspection of the inactive nests was not feasible. All of the nests were on the steepest of the cliffs surveyed and one was at the end of a long valley with no view over the surrounding country. One (inactive) nest on the south-east side was an estimated 1.5 to 2 m high and all were built against steep walls and not balanced on some of the spires which stand away from the main wall as in the Matopos (Gargett 1990).

In the 1983 survey Brown & Cooper (1987) found 7 pairs of eagles with a total 15 nest sites. The Waterberg Black Eagles have therefore stayed relatively stable over the two decades between surveys. The 1983 survey was not conducted while Black Eagles were nesting so nest occupancy can not be compared.

Booted Eagles

These relatively cryptic birds breed in Namibia in July-August according to Brown (1985) who found the only nest in Namibia. No birds or their very small nests were seen in this survey. The eagles live close to the vultures main cliffs (Brown 1985) but they were overlooked until Brown who was watching vultures saw an eagle strike prey and take it to a previously unnoticed nest site. I recommend ground surveys for these birds in August when they may be feeding young, particularly since a single bird was seen in the vicinity in July (M. Diekmann pers.comm.) and several trees growing from the cliffs had prominent white wash below them suggesting use by a medium sized raptor.

Booted Eagles are important species to survey given that they are a recently recognized southern African subspecies (Yosef *et al.* 2000) and only about 700 pairs are estimated to occur in southern Africa (Pepler *et al.* 2001). Recent sightings of birds in the Erongo mountains around high cliffs suggest possible breeding there but this remains unconfirmed (RES and K-U Denker pers.comm.).

Peregrine Falcons

A total of 6 peregrines were sighted along the cliffs, of which two were pairs. Nest sites were not searched for due to limited time in the air. As expected all sightings were on the steepest cliffs including one just north of the vulture breeding cliffs. This number compares with 14 pairs located by Brown & Cooper (1987). It is difficult to determine whether there is a real decline or it is an artifact of the faster speed when sampling in this study. However, given that I could see birds on the cliffs and that some birds were seen as they flew at the approach of the helicopter, I felt that there was a real decline in the number of resident birds. On the other hand, experienced peregrine researcher, Andrew Jenkins states that peregrines on eggs do not flush even from close helicopter flights. Peregrines breed in September in the Cape and Namibia (A. Jenkins pers. comm.) and I saw adults feeding chicks in the Erongo Mountains in western Namibia suggesting that peregrines were breeding when my survey took place. I may have missed birds on small ledges and nests so they were undercounted. Whether or not there is a decline remains unresolved.

According to (Brown & Cooper 1987) and discussions therein peregrines prefer complete tree cover below their nesting cliffs while Lanner Falcons *Falco biarmicus* prefer more open ground. The tree cover has changed little since the 1985 survey and has remained dense and complete below the cliffs. However, rainfall has decreased in that period probably reducing prey populations. Only a single Lanner Falcon was observed supporting the idea that tree cover promotes increased Peregrine and decreased Lanner populations. Peregrines are also dominant over Lanners and will chase them out of their territories.

Conservation and conclusions

This survey confirms findings from a brief helicopter survey in February 2000 around the Waterberg (Simmons unpubl.) which also found no roosting vultures

on the cliffs. Given that breeding stopped around 1995, the remaining birds are no longer tied to these cliffs (as they are when breeding), meaning that they may wander much larger distances. This of course opens up these scavenging birds to much greater risk of poisons, and indeed two poison incidents killed 19 vultures in two separate incidents just south of the Etosha National Park fence in June 2001 (W. Versfeld). These birds were either Whitebacked Vultures or Lappet-faced Vultures including two colour-ringed birds bred in Etosha. Many other incidents are known leading to mortality (Bridgeford 2001).

Given that whitewash was present on the cliffs in this survey, clearly the birds do continue to roost at Waterberg and do continue to use the vulture restaurant (M. Diekmann pers.comm.). Peter Mundy was invited to visit Namibia in 1999 as an independent assessor of the declining population. His recommendation was to begin to re-introduce birds from South African stock, continue to monitor birds at the restaurant, and reduce poisonings. At the time I thought re-introduction was premature given that neither bush-encroachment nor poisoning had been brought under control. Now I understand that bush-clearing may increase under a scheme proposed and funded through the Cheetah Conservation Fund with its headquarters close to the vulture cliffs (B. Brewer, Cheetah Conservation Fund.). Clearing of areas favoured by foraging vultures under this scheme is feasible and may enhance the quality of foraging grounds open to the vultures. With the continuing education of farmers in the Otjiwarongo region and publicity about the Cape Vulture's plight promoted by Maria Diekmann and poison education awareness promoted by Liz Komen and Peter Bridgeford (NARREC and VSG), the future prospects for vultures are looking up. If new vulture stock can be introduced at the same time as bush encroachment and poisonings are diminished we may see a much brighter future for Cape Vultures in Namibia.

Acknowledgments

Sincere thanks to Maria and Jorg Diekmann for their hospitality, generosity and continuing monitoring of the Waterberg Cape Vultures. Also to Dave Thorn for his skillful chopper flying and observations, to Richard Fryer (MET) for helping organize the logistics and Chris Brown for discussions on the Waterberg raptors.

Literature Cited

- Benson, P. C. 1997. Status of vultures in the Northern Cape Province, South Africa. In: Boshoff, A. F., Anderson, M. D. & W. D. Borello (Eds.), Vultures in the 21st century. pp. 21-29. Vulture Study Group: Johannesburg.
- Berry, M. H. 1995. Population dynamics of the Cape Vulture *Gyps coprotheres* at the Waterberg Plateau Park. Unpubl. Report. Technikon, Windhoek, Namibia.
- Borello W. D. & R. Borello. 1997. Vultures in Botswana. In: Boshoff, A. F., Anderson, M. D. & W. D. Borello (Eds.), Vultures in the 21st century. pp. 82-89. Vulture Study Group: Johannesburg.
- Boshoff, A. F., Anderson, M. D. & W. D. Borello (Eds.), Vultures in the 21st century. Vulture Study Group: Johannesburg.
- Bridgeford, P. 2001. More vulture deaths in Namibia. Vulture News 44:22-26.
- Brown, C.J. 1985. The status and conservation of the Cape Vulture in Namibia. Vulture News 14:4-14.
- Brown, C.J. & Cooper, T.G. 1987. The status of cliff-nesting raptors on the Waterberg, SWA/Namibia. Madoqua 15: 243-249.
- Gargett, V. 1990. The Black Eagle - a study. Russel Friedman Books, Johannesburg.
- Mundy, P. Benson P. & D. G. Allan. 1997. Cape Vulture *Gyps coprotheres* In: Harrison J Allan, D. G. Underhill L. G. Herremans, M. Parker, V. & C. J. Brown (Eds.), Pp. 158-159. The Atlas of southern African Birds. Birdlife South Africa, Johannesburg.
- Mundy, P.J. Butchart, D. Ledger, J. & S. Piper. 1982. The Vultures of Africa. Acorn Books, Johannesburg.
- Pepler D., Martin R. & H. Van Hensbergen. 2001. Estimating the breeding population of Booted Eagles in [southern Africa] the Cape Province, South Africa. J Raptor Research 35:15-19.
- Simmons RE & P. Bridgeford. 1997. The status and conservation of vultures in Namibia. In: Boshoff, A. F., Anderson, M. D. & W. D. Borello (Eds.), Vultures in the 21st century. pp. 67-75. Vulture Study Group: Johannesburg.
- Simmons R. E. (unpubl.). Results of helicopter flights to survey cliffs for Egyptian and Cape Vultures. DEA internal report, MET, Windhoek.
- Yosef, R., Verdoorn, G., Helbig, & A. Seibold. 2000. A new subspecies of the Booted Eagle from southern Africa, inferred from biometrics and mitochondrial DNA. In: Chancellor RD & B_U. Meyburg. Raptors at risk. Pp. 43-49. WWGBP, Hancock House, UK