

Update on the Cape Vulture *Gyps coprotheres* at the Goba breeding colony in southern Mozambique.

James W T Hogg^{1*} and André Botha²

¹ Scarth Wood Farm, Swainby, Northallerton, North Yorkshire, DL6 3DJ, UK

² Vultures for Africa Programme, Endangered Wildlife Trust, Austin Road, Glen Austin, Midrand, Gauteng, South Africa

*Corresponding author: jwthogg@googlemail.com

<http://dx.doi.org/10.4314/vulnew.v85i1.3>

The Cape Vulture *Gyps coprotheres* (classed as *Vulnerable*, BirdLife International 2022) was at one time thought to be a non-breeding visitor to Mozambique (Clancey 1996). However, during survey work in the early 1990s for the *The atlas of the birds of Sul do Save, Southern Mozambique*, a colony of 10 to 15 pairs was identified in southern Mozambique at a cliff in the Lebombo Mountains close to the border with eSwatini (Parker 1999). At that time the species was also reported along the border with Kruger National Park to the north of Ressano Garcia / Komatipoort. When the site was observed from a light aircraft in July 2002, six nests were occupied by adults and there were a further three unoccupied nests, though it was not possible to determine if the latter contained eggs (A. Monadjem *pers. comm.*) Later, the estimated population was revised to 12 pairs (40 individuals (Parker 2004)). Until recently, no information on follow-up visits to the site has been published and a re-assessment of the breeding status of the species at this colony was considered necessary.

Away from the colony and seemingly even with the advent of citizen science projects (eBird and SABAP2), this species is still infrequently recorded in southern Mozambique. A review of both above-mentioned citizen science platforms for the whole country shows only four observations away from the Goba area, as follows:

- eBird: One on 18 February 2018 at Licquati Forest [S53518301](#) (Auer *et al.* 2022);
- eBird: Four on 16 June 2019 around Moamba [S57553712](#) (Auer *et al.* 2022);
- eBird: One on 3 September 2022 at Goba [S117992062](#) (Auer *et al.* 2022);
- SABAP2: the species was observed on 6 March 2012 near Mapai in the Limpopo National park (Brooks & Ryan 2022).

By contrast, the species is seen regularly in the lowveld of Eswatini, and they have been seen flying to and from the Goba nest site to that area (A. Monadjem *pers. comm.*). The regular sightings in Eswatini and South Africa compared to the scarcity of sightings in southern Mozambique are likely “because foraging opportunities are limited in this part of Mozambique” (Parker 1999). Misidentification with African White-backed Vulture *Gyps africanus* is a potential issue, although African White-backed Vulture is also recorded comparatively infrequently in southern Mozambique, with 26 records via eBird (Auer *et al.* 2022) and 17 records via SABAP2 (Brooks & Ryan 2022), the vast majority from along the border with Kruger and Gonarezhou National Parks and a handful of records further away, i.e. from Zinave NP. Both *G. coprotheres* and *G. africanus* are reported with much higher frequency and density on the South Africa, Eswatini, Zimbabwean sides of the borders. In Mozambique, the lack of observations of *Gyps* vultures is most likely due to a lack of observer effort at suitable locations,

though the lack of feeding opportunities in southern Mozambique may also be a factor. The prolonged conflict (1977 to 1992) resulted in the loss of fauna that supply the carrion for vultures, and their populations dropped markedly (Parker 1999). Mammal populations are generally recovering in Mozambican national parks (e.g. restocking at Maputo National Park (Peace Parks 2023)), which may in turn provide carrion for vultures. In regard to Cape Vulture, this species is frequently recorded in Kruger NP, and it seems likely that the species might be more regular than presently observed, i.e. in the private reserves that border the Kruger National Park to the north of Ressano Garcia / Komatipoort; Sabie Game Park, Masintonto and Karingani.

To the best of our knowledge, the Goba colony and cliff have received little, if any, recent attention and it has not been monitored for some time. The breeding colony is located on a cliff (26°20'13.5"S 32°07'22.1"E) in a small valley to the west of the village of Changalane, Naamacha district, Maputo Province. In the past two years JH has made seven visits to the cliff and vulture colony. AB encouraged a more thorough monitoring effort during the breeding season. Thus in 2021-2022 the cliff was visited seven times and documented following the standard *Cape Griffon Vulture breeding colony conservation and monitoring protocol* (Benson *et al.* 2007). An annual colony report was submitted to the Endangered Wildlife Trust in October 2022. A summary of visits to the site during 2021 and 2022 are summarised in Table 1. A maximum of 15 individuals have been observed at any one time and in the 2022 breeding season the colony produced one large nestling.

The cliff lies approximately 9 km from the eastern boundary of the Lubombo-Goba Trans-frontier Conservation Area (TFCA) between Mozambique and Eswatini (Peace Parks Foundation, *pers. comm.*). A seasonal river runs through the valley, the hillsides are a mixture of

wooded and grassed areas. Some subsistence farming and pastoralism is taking place and, associated with this, is deforestation, charcoal making and grass burning (JH, *pers. obs.*). The cliff is fairly unique to southern Mozambique, as this is an area with few other large cliffs. Although sizable (up to 100 m high and 1.6 km in length), only a small portion has ledges suitable for nesting, thus there are few nests and this is a small breeding colony for this species (Figures 2 and 3).

The site is also important for other cliff-associated species that are seldom observed in other parts of southern Mozambique i.e. Pale Crag Martin *Ptyonoprogne fuligula*, African Black Swift *Apus barbatus*, Mocking Cliff-chat *Thamnolaea cinnamomeiventris*, Red-winged Starling *Onychognathus morio* and Black Stork *Ciconia nigra*. Raptors such as Peregrine Falcon *Falco peregrinus* and Lanner Falcon *F. biarmicus* have been observed at the cliff and the latter, as well as Black Stork, have been observed breeding there.

The surrounding wooded valleys with small cliffs house populations of chacma Baboon *Papio ursinus* and Vervet Monkey *Chlorocebus pygerythrus*. These are presumably the food source for a pair of near-threatened Crowned Eagle *Stephanoaetus coronatus* (BirdLife International 2022) that were seen performing display flights over a forested area immediately south of the cliff on 7 May 2022. Around Maputo this species is restricted to Maputo National Park and the Lebombo mountains (Parker, 1999), in Eswatini it was recorded breeding in the Mbuluzi-Mlawula reserve area (Monadjem & Rasmussen, 2008) and since then a second nest has been found (A. Monadjem *pers. comm.*). A Martial Eagle *Polemaetus bellicosus* (classed as *Endangered*, BirdLife International 2022) was seen over the cliff on 28 May 2023. This species is scarce in southern Mozambique, but has previously been observed in the Lebombos (Parker, 1999) and around Maputo National Park (Parker, 1999 & JH *pers. obs.*).



Figure 1: The portion of the cliff used for nesting by Cape Vultures at the Goba colony, southern Mozambique, is highlighted in yellow. Photographed on 10 July 2022.



Figure 2: A closer view of the Cape Vulture colony (10 July 2022), with the location of nests 1 to 5 marked. Only nest 5 raised a chick that was observed on 22 September 2022.

Table 1: Summary of monitoring visits and findings at the Goba Cape Vulture breeding colony in 2021-2022.

Date of visit	Observations and notes	eBird Checklist
20 April 2021	Total 14 individuals. Some at rest on suitable nest ledges and others in flight. Nest material collection was observed	S85973315 (Auer <i>et al.</i> 2022)
23 May 2021	Total 15 Individuals. Some at rest on suitable nest ledges and others in flight	S88842379 (Auer <i>et al.</i> 2022)
19 November 2021	Two individuals	S97792330 (Auer <i>et al.</i> 2022)
7 May 2022	14 Individuals. Nest material collection was observed (Figure 3)	S109288700 (Auer <i>et al.</i> 2022)
10 July 2022	Total eight individuals. Five appeared to be on nests. Three in flight around the cliff. (Figure 2)	S114792029 (Auer <i>et al.</i> 2022)
21 August 2022	Three birds seen on what appeared to be nests. Nest one, the bird flew off, no chick evident. Nest two, the bird shuffled and sat down again – no chick seen – apparently this was not a successful nest. The third nest, a bird stood up and the chick was clearly seen. Note: Grass had clearly been burned on the hillsides close to the cliff in between the previous visit and this one.	S117311288 (Auer <i>et al.</i> 2022)
22 September 2022	A chick was seen at the nest, indicated by the downy-feathered neck and streaky breast.	S119177347 (Auer <i>et al.</i> 2022)
28 May 2023	Total eight individuals. Three in flight and five occupying nests, in the same positions on the cliff as 2022.	S139561866 (Auer <i>et al.</i> 2022)



Figure 3: Cape Vultures flying over the Goba Colony on 7 May 2022. Observations during April and May provided the highest counts for the colony, during which nest material collection and nest building was observed.

The possible threats that may affect the colony have not been fully assessed. The colony is located in a fairly remote and rural area, however in the immediate vicinity there are a handful of small farms. During the monitoring visits in 2021-2022, it was evident that more land had been cleared for farming and some irrigation of vegetable plots was taking place. Grass burning in the area risks wider habitat change should a fire burn out of control, especially since burning seemingly takes place around the time when chicks are on the nest. Since the colony lies within the Lubombo-Goba TFCA, conservation managers should be encouraged to consider the colony in future plans.

Power infrastructure currently presents an unquantified risk and no data are available on mortalities. There are no major powerlines within the immediate vicinity of the site, although there is a 400 kv electricity cable running WSW to ENE from Mbabane to Matola/Maputo approximately 30

km north of the site, and a 400 kv electricity cable running NW to SE from Kommatipoort to Matola/Maputo approximately 100km north of the site, which although low density and some distance from the site may pose a risk of collision. A windfarm has also been proposed at Naamacha, approximately 40 km north from the breeding colony (Club of Mozambique 2020). More significantly, the small colony size (5-6 nesting pairs) renders these birds at risk of local extirpation in the event of a mass poisoning incident, or other causes of mass mortality. Furthermore, the feeding and foraging grounds of this population of birds are also unknown. It would be very useful to undertake a tracking study to gain a better understanding of where this colony of vultures forages and their range. This would allow for a better assessment of risk, a more nuanced approach to the colony's conservation and may also demonstrate interaction with other colonies and thus potential gene flow.

Acknowledgements

The authors show appreciation to Ara Monadjem for comments on an earlier draft and inputs from his personal observations, and to the Peace Parks Foundation; Antony Alexander, Arlene Herbst and Loraine Bewsher for clarifying the boundary of the Lebombo TFCA. Finally, thanks to the following people who accompanied JH on visits to the cliff - Antonio Delegencio, Georgina & Harriet Hogg, Becky Howes, Samuel Liebert, Sarah Love, Tom & Anne-Marie Moore, Mark O'Reilly and Morgan Vance.

References

- Auer T, Barker S, Borgmann K, Charnoky M, Childs D, Curtis J, Davies I, Downie I, Fink D, Fredericks T, Ganger J, Gerbracht J, Hanks C, Hochachka W, Iliff M, Imani J, Johnston A, Lenz T, Levatich T, Ligocki S, Long M T, Morris W, Morrow S, Oldham L, Padilla Obregon F, Robinson O, Rodewald A, Ruiz-Gutierrez V, Strimas-Mackey M, Wolf H, Wood C (2022). *EOD – eBird Observation Dataset. Cornell Lab of Ornithology. Occurrence dataset* <https://doi.org/10.15468/aomfnb> accessed via GBIF.org on 2023-01-17. <https://www.gbif.org/occurrence/3520419267>
- Benson, P., Piper, S. E., Neethling, M., Vernon, C. J., Botha, A., Boshoff, A., Borello, W.D., Borello R. & Mundy, P. J. 2007. *Cape Griffon Vulture Gyps coprotheres: Breeding colony conservation & monitoring protocol*. Endangered Wildlife Trust (EWT), Johannesburg, South Africa.

- BirdLife International (2022) IUCN Red List for birds. Downloaded from <http://www.birdlife.org> Accessed 29/09/2022.
- Brooks, M. and Ryan, P (2022). *Southern African Bird Atlas Project 2. Version 1.50*. FitzPatrick Institute of African Ornithology. Occurrence dataset <https://doi.org/10.15468/8x5b7h> accessed via GBIF.org on 2022-08-23.
- Clancey, P. A. 1996. *The birds of southern Mozambique*. African Bird Books, Westville.
- Club of Mozambique 2020. <https://clubofmozambique.com/news/first-wind-power-plant-to-be-installed-in-southern-mozambique-170247/> Accessed 10/11/22.
- Monadjem, A. and Rasmussen, M. W. 2008. Nest distribution and conservation status of eagles, selected hawks and owls in Swaziland. *Gabar* 19: 1-22.
- Parker, V. 1999. *The atlas of the birds of Sul do Save, Southern Mozambique*. Avian Demography Unit, Cape Town & Endangered Wildlife Trust, Johannesburg.
- Parker V. 2004 *The Status of Vultures in Mozambique*, In: Monadjem, A., Anderson, M.D., Piper, S.E. & Boshoff, A.F. (Eds). *Vultures in The Vultures of Southern Africa – Quo Vadis?*. Proceedings of a workshop on vulture research and conservation in southern Africa. Birds of Prey Working Group, Johannesburg.
- Parker, V. 2005. *The atlas of the birds of central Mozambique*. Endangered Wildlife Trust, Johannesburg & Avian Demography Unit, Cape Town.
- Peace Parks. 2023. <https://www.peaceparks.org/parks/maputo-special-reserve/> Accessed 02/05/2023.
