



Southern African vulture breeding report 2016: Cape, African White-backed and Hooded Vulture breeding surveys

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Summary

Seven Cape Vulture colonies and four properties containing African White-backed and Hooded Vultures were surveyed to continue our annual breeding census of the 'endangered' and 'critically endangered' species. Tree nesting vultures are thought to be in critical decline from poisonings, yet the exact population count and therefore status of several species is still unknown. We initiated tree nesting vulture surveys in 2013 to begin establishing population estimates and monitor trends. This year, we were thrilled to add a new African White-backed Vulture survey site at Swineburne Game Farm on the Limpopo River, bordering Botswana in the North West Province, South Africa.

Success rates for mid-season (tree nesting species) and final season (Cape Vulture) censuses were within the range of values previously recorded for the species. Our 2016 results in general are encouraging. All Cape Vulture colony breeding pair counts have increased compared to 2015 except Robert's Farm colony in the Magaliesberg, which has showed no signs of activity since the colony's extinction in 2012.

Survey Overview and Methods

All Cape Vulture colonies were monitored from the ground looking up onto the cliff ledges. Breeding activities were recorded according to the monitoring protocol used since 2006 (for full protocol see Wolter et al. 2011).

African White-backed and Hooded Vulture surveys focused on 4 properties with three different land-management practices, i.e. protected area (Olifants River Private Game Reserve (ORPGR), Limpopo Province) non-protected, commercially owned areas (Boikarabelo, Limpopo Province), and privately owned (Swineburne Game Farm on the Botswana border in the North West Province, Curly Wee piggery and vulture restaurant, also in the North West Province, as well as privately owned farms surrounding Boikarabelo). Monitoring at these sites occurs directly below the nests or at an angled vantage point from the ground.

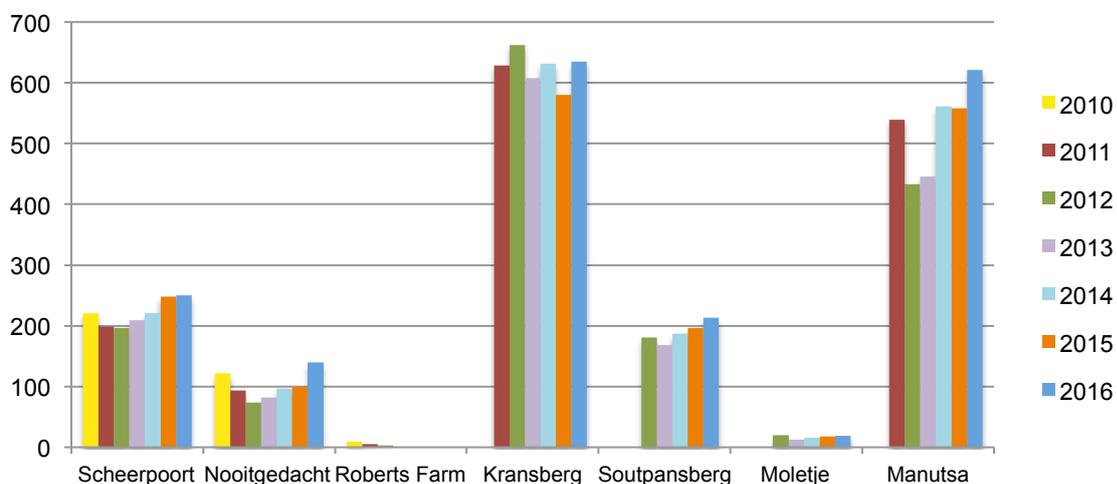
Specific terminology is used for both surveys. VulPro deduces the total number of breeding attempts and the percentage of (un)successful attempts using these descriptions of behaviors:

- Tenanted = a pair or individual bird is present at a nest where, based on the behavior of either the pair or the individual bird, breeding is suspected.
- Chick = a chick / nestling is seen, a pair or individual bird is seen feeding a chick but the chick is not actually seen, or a pair or individual bird behaves in a manner indicative to there being a chick present.
- Fledgling = a large chick/nestling, which is ready to fledge, is seen, or when a fledgling is seen.
- Brooding = an adult is seen on the nest in a guarding or shading posture, denoting the presence of a chick.
- Copulation = a pair is seen mounting and/or copulating at a nest or suitable ledge for breeding.
- Incubation = an individual bird is laying in a manner indicative of incubation behavior, different from a sleeping posture.
- Working = an individual bird or pair is actively building a nest on a ledge.
- Hidden = there appears to be breeding behavior at a ledge or crevice but the observer can't accurately see to record the data.

Cape Vulture Breeding Surveys

The Cape Vulture populations (at the colonies VulPro monitors annually) appear to be increasing, in some colonies quite drastically. This is very promising and continues the slow upward trend witnessed over the last several years (see Wolter et al. 2016 for 2010-2014 data).

Cape Vulture Breeding Pairs 2010-2016



Our 2016 Cape Vulture monitoring data is reviewed in the following table for each colony:

	Breeding Pairs	Nestlings	Fledglings
Manutsa	<u>Total pairs: 621</u> Tenanted – 38 Working – 17 Incubating – 553 Copulating – 4 Hidden - 10	<u>Total active nests: 593</u> Chick – 51 Brooding - 477 Incubating – 8 Tenanted – 49 Copulating – 0 Working - 0 Hidden - 3	-
Kransberg	-	-	<u>Total active nests: 635</u> Fledgling - 138 Chick – 274 Brooding - 96 Incubating – 1 Tenanted – 112 Working – 11 Hidden - 3
Skeerpoort (Magaliesberg)	<u>Total pairs: 250</u> Tenanted – 31 Working – 21 Incubating – 198 Copulating – 0 Hidden - 1	<u>Total active nests: 244</u> Chick – 14 Brooding - 174 Incubating – 30 Tenanted – 11 Copulating – 0 Working – 1	<u>Total success: 208</u> Fledgling – 0 Chick– 147 Brooding – 46 Incubating – 2 Tenanted – 12 Working - 1
Nooitgedacht (Magaliesberg)	<u>Total pairs: 140</u> Incubating – 112 Tenanted – 23 Working – 5 Copulating – 0 Hidden – 5	<u>Total active nests: 121</u> Chick – 9 Brooding - 97 Incubating – 9 Tenanted – 5 Copulating – 0 Hidden – 1	<u>Total success: 124</u> Fledgling – 17 Chick – 82 Brooding – 19 Tenanted – 5 Working – 1
Roberts' Farm (Magaliesberg)	Extinct Incubating – 0 Tenanted – 0	-	-
Soutpansberg	<u>Total pairs: 213</u> Incubating – 192 Tenanted – 8 Working - 13	<u>Total active nests: 181</u> Chick – 96 Incubating – 85	-
Moletjie	<u>Total pairs: 19</u> Incubating – 12 Tenanted – 3 Working – 1 Hidden – 3	<u>Total active nests: 6</u> Chick – 2 Incubating – 2 Tenanted – 1 Brooding – 1	-
Total	Total pairs: 1 878* ~50% of the global population**		

* Kransberg breeding pair count taken from final survey.

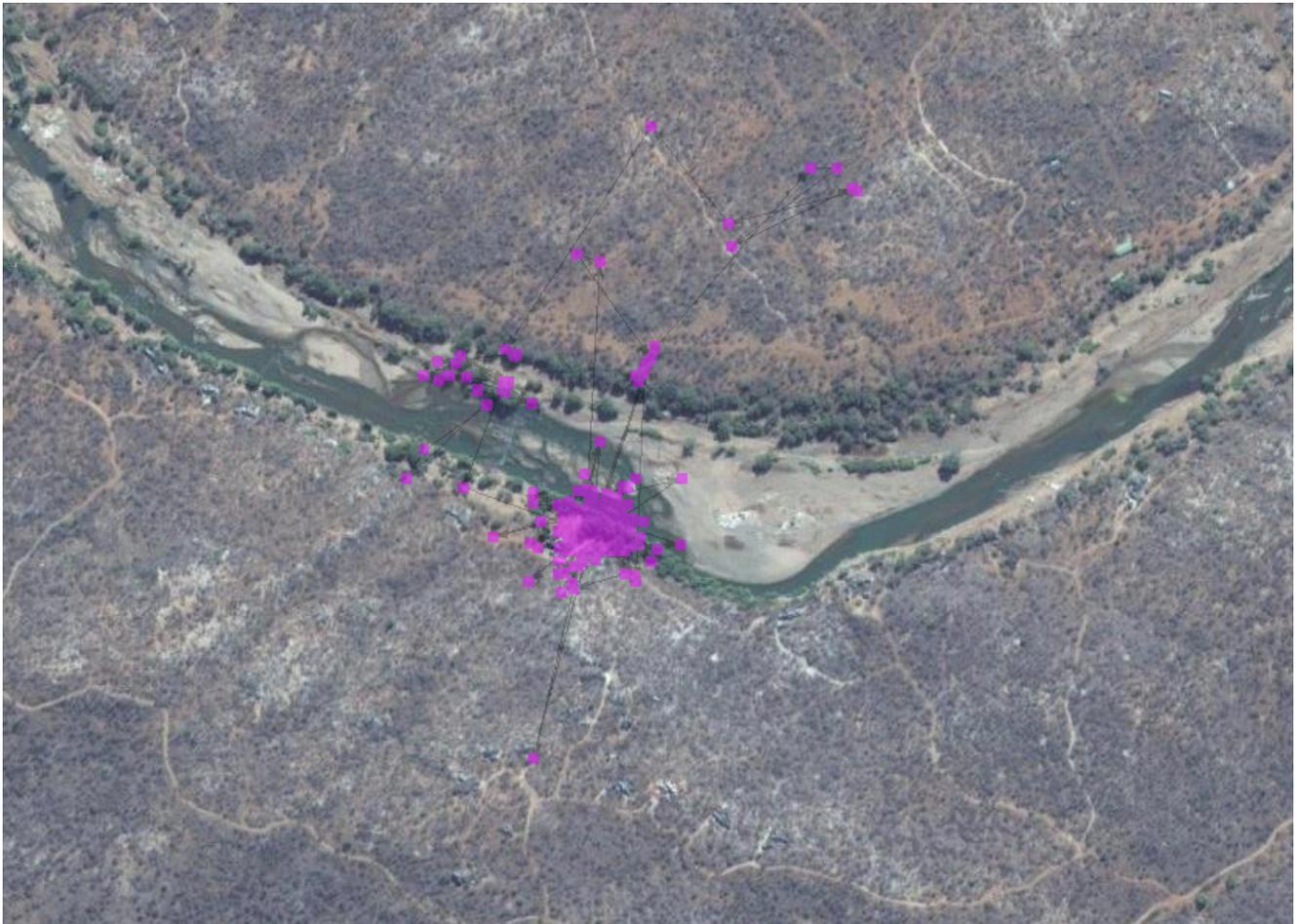
**Global population estimate of fewer than 4,000 breeding pairs taken from 2012 Cape Vulture Task Force Report (Wolter et al. 2012). This is the most recent count of all known breeding pairs (except Lesotho). There is an urgent need for an updated global survey to determine accurate current global population numbers.

African White-backed Vulture Surveys

Location	Breeding Pairs June	Total Active Nests Aug/Sept	Estimated mid-season success (%)
Boikarabelo	40	34	85
Swineburne	-	16	84
Curly Wee	8	5	63
Olifants River PNR	37	54	146*
Total		109	

**several active nests were noted in the September survey which were not noted in June. The cause of this increase is unknown, but may be a result of the drought and beneficial regional increase in food availability, possibly attracting pairs to the study site.*

In addition to conducting the September breeding survey in ORPGR, eight AWBV chicks were ringed, tagged with patagial tags (only 5 chicks; 3 were too young to be tagged), and blood samples were taken for sexing. One chick also received a 10 gram GPS-GSM tracking device mounted on a patagial tag. This chick has since fledged, as shown by his GPS tracking data (see map below of his first short movements out of the nest). Monitoring these chicks will give invaluable data on the critically endangered species' dispersal, foraging and ranging behaviours, and longevity.



Hooded Vulture Breeding Surveys

Our June survey in ORPGR revealed 16 active nests. All nests were still active in September and 3 nests were confirmed with chicks (other were inferred active by parental behaviours). The number of breeding pairs increased from last year (14 pairs), as this year the survey was extended by an additional 5 km.

Threats

Power lines remain the biggest cause for the Magaliesberg vulture declines in the North West Province; however, poisoning is on the increase throughout southern Africa. **In 2016 alone, 138 vultures have been reported victims of power line fatalities and injuries in South Africa while a total of 499 vultures have been poisoned and found dead.** These figures represent only the individuals which are found and reported to VulPro; there are surely more that go left unreported. VulPro and Eskom have started working together more closely to reduce power line impacts on vultures, including working to see that Eskom's 'proactive mitigation strategy' maximizes its effectiveness. Poisoning is still very difficult to mitigate based on the increased poaching activities, the increase in the demand for wildlife for trade (*muti* and bush meat consumption), and direct persecution of vultures to wipe them out as they indicate poached animals to park rangers.

Poaching was likely the main cause of breeding failures in the African White-backed Vulture surveys in 2015, yet there was no direct evidence for this in 2016. Many poaching efforts occur predominately between South Africa and Botswana where there is illegal movement of people between both countries. The location of the Boikarabelo and Swineburne survey sites puts them at great risk. This region needs some urgent intervention to safeguard vulture nests throughout the area.

Africa is facing a massive vulture crises with ALL vulture species populations declining (Ogada et al. 2015). VulPro continues to do all that is possible to try halt the current downward trends. The monitoring and tree nesting surveys are just some of the activities undertaken by VulPro. The full annual report produced by VulPro will cover the entire operation in detail

Acknowledgements

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