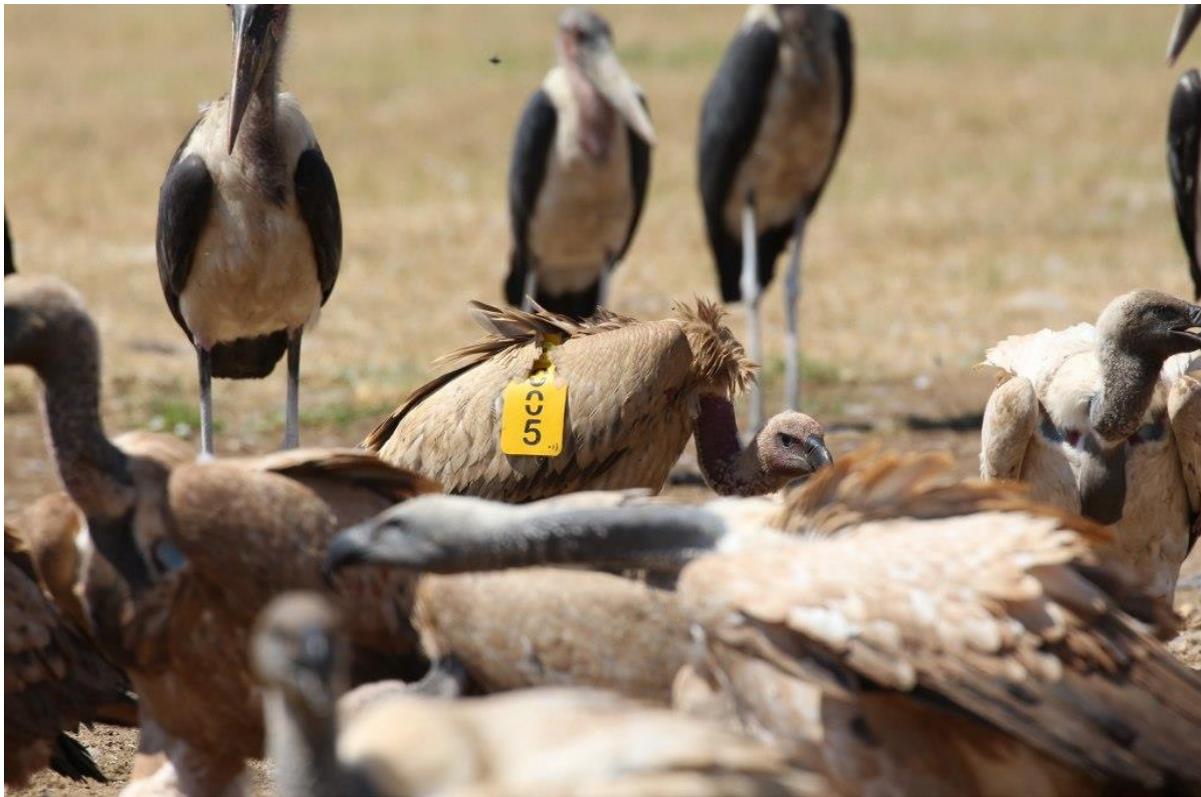


6 Month Progress Report

Cape vulture captive breeding and release programme
Magaliesberg Mountains, South Africa

VulPro NPO



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Brooder and Incubator room construction

The construction of VulPro's brooder and incubator rooms commenced in February. The rooms, sponsored by Tri-Star Construction and Aluminium-Enterprises, were finished and functional by March, just in time to install VulPro's two Grumbach hatching incubators (one sponsored by the Rufford Foundation). VulPro's main compound including the brooder and incubator rooms, were outfitted with 28 solar panels as of January 2015 securing the power supply of our incubators. This is critical as electricity is never a guaranteed utility due to almost daily load shedding schedules and the high costs associated with electricity. Incubators were sanitized and turned on in mid-April, in preparation for the first egg's arrival.



Captive bred chick release programme

Ten captive bred Cape Vulture (*Gyps coprotheres*) chicks were released at VulPro NPO's facilities in North West Province, South Africa (25°42'41"S, 27°57'13"E) in February 2015. These chicks were parent-raised between 2011 and 2014 from VulPro's (n=7) and the National Zoological Garden's (n=3) captive populations. Every chick was released with individualised wing tags for identification and solar powered GPS tracking units. This release initiated the South African Cape Vulture Supplementation Programme which aims to boost the decreasing Cape Vulture population and re-colonize the now extinct Magaliesberg Roberts' Farm breeding colony.

Chicks were placed into an open top enclosure adjacent to their previous enclosure, allowing them to explore at their own pace. Within the first hour of release all chicks remained at the side of the enclosure. Slowly they explored their surroundings, fought over perches, pulled at shade netting, and visited VulPro's vulture restaurant. Within the first few days all chicks experienced a frenzied feeding event with up to 120 wild vultures, most of whom were from the surrounding Magaliesberg population.

All of the chicks have remained close to the release site. Four individuals have ventured off property on several occasions for various lengths of time. Some required retrieval due to being grounded in potentially dangerous areas (anthropomorphic threats), while two returned of their own accord. We fear one, Koti, is un-releasable due to his inability or unwillingness to fly. A Masters' student with Rhodes University is assessing their behaviours, ranging, and body condition to determine the best age to release the species. Based on her observations, progress on each chick is summarized in the next section.

All of the released chicks can not be considered free-ranging at this time because none have ventured further than a few kilometres from the center nor have they foraged for food outside of VulPro's vulture restaurant. VulPro is now working with multiple Magaliesberg mountain landowners to select the best release site for future chicks. We plan to move future broods to a large flight enclosure at the base of the cliff at fledging age and release them after a

year of holding at the site. Our release site will either be at the location of the Nooitgedacht breeding colony, providing direct interaction with the wild birds, or will be 10km west within sight of both the Nooitgedacht (active) and Roberts' Farm (extinct) colonies. In moving the release site, we reduce human habituation and allow them to imprint on the exact location where we want them to eventually breed.

Power line electrocutions and collisions are the number one threat to the species in the Magaliesberg region. We are working with Eskom (power supply company) to install a power line aversion programme for both captive bred and rehabilitated birds at the center. Phase one will include placing mock power line structures inside the enclosure with a small electrical charge to deter perching. This research will determine if these birds can be taught to avoid dangerous structures, if the danger can be advertised with an object, and if the birds can learn which perches are dangerous from their enclosure mates.

Individual Chick Update

Cell Track (000, three years old, VulPro) has remained very conservative in his ranging movements and is very timid at wild vulture feeding events. He often feeds after many birds have left the frenzy but when he feeds he is very efficient and fills his crop.

Sunset (001, three years old, VulPro) ventured off the property in early March. He flew to the North West a few kilometres but landed on the ground. He spent two nights off the property before he made his way back to VulPro's neighbors but still on the ground. We were concerned for his lack of food and water and after three days off property retrieved him from the neighbouring farm. We gave him fluids and immediately re-released him. He has been on the property ever since.

Koti (002, two years old, VulPro) is a special case. He was showing very little interest in flying high and never perched above 2m off the ground. He was captured and after exams and x-rays we found a very small hairline fractured radius. He spent the prescribed 4 weeks in our rehab enclosure and was re-released on April 1. He has since not improved his flight skills and seems uncoordinated. We unfortunately believe he may be non-releasable. Due to very poor flight capabilities, he has been re captured and is currently in our rehab enclosure.

Vulcan (003, two years old, VulPro) has proven to be one of the most independent of birds. He has ventured off the property for two nights in mid-March. He did not venture far, only to the neighbouring property, yet he managed to roost on both tall transmission Eskom power lines, as well as smaller staggered-vertical municipal power line structures. He made his own way back to VulPro. His flight and behaviours at the restaurant are strong.

Cassie (005, first year, VulPro) has not left the property. She is a relatively neutral figure in feeding events yet she displays often.

Isra (006, first year, VulPro) is by far the most adventuresome of chicks. He has left the property four times. The first three adventures required retrieval as he landed on the ground on property in which we know dogs resided. In all three instances he flew south. The final instance in early April he flew south yet then ventured north to the less-human habituated slopes of the Magaliesberg. From this better vantage point (view and wind), he made his own way back to VulPro has remained here ever since. He is also one of the few chicks we have seen thermal (rise up high in the sky in arcing loops) from the property.

Netzah (007, two years old, National Zoological Gardens) is a neutral figure in wild vulture feeding events but is efficient at filling his crop. He has not left the property yet displays strong flight.

Tukollo (008, four years old, National Zoological Gardens) has remained conservative in his ranging yet he is by far the most efficient feeder at wild feeding events. I have found behavioural observations difficult for him as his is able to fill his crop so quickly I fail to record an intake rate. His flight is very strong.

Sampati (009/026, three years old, National Zoological Gardens) was recaptured due to a lack of high flight. He was the only bird which was deployed with a patagial wing-mounted GPS device. We removed the device in late March and replaced it with a backpack-mount GPS unit and subsequently re-released him in early April. We continue to monitor his flight which appears strong yet not very adventuresome. He routinely makes low flights but has yet to gain height above 3 m.

Griffindor (012, first year, VulPro) tries to avoid large feeding events at VulPro. Yet when she joins she is very dominant. She spends most of her time displaying and initiating interactions with other birds. This means she is not the most efficient of feeders. She prefers to feed in our open-top enclosure with less competition. She has not yet ventured off VulPro's property.

Captive breeding programme

We are grateful to have three new breeding pairs this year, bringing our Cape Vulture breeding colony up to 13 breeding pairs. These new pairs started showing interest in each other, i.e. copulating and roosting together last year. Now as other members of the colony copulate and build nests, these new pairs have claimed ledges for the own nest construction.

To date VulPro's captive breeding population of Cape Vultures has given 10 eggs this season. Our first egg arrived April 23, the earliest egg recorded at VulPro. One egg has been confirmed infertile. It was found in the morning on the ground unguarded. We suspect this egg belonged to a non-paired female. Three eggs are confirmed fertile. We are expecting six more eggs this season. Two eggs were not replaced with a dummy egg, prompting two pairs to lay a second egg, both pending.

Our second Grumbach incubator, sponsored by the Rufford Foundation, has already proved very useful. The above mentioned infertile egg was placed in the second incubator alone. Once the egg was confirmed infertile, it was discarded. We are now using the second incubator to house two other eggs which we suspect are also infertile, due to their size and prior laying history of the pairs.



Unfortunately we have had an influx of permanently injured African White-backed and Lappet-faced Vultures at the center, most victims of power line collisions and electrocutions. If each of our resident Lappet-faced Vultures decides to pair we will have 3 breeding pairs of the species, tripling our numbers from last year. Within the last week we have seen the first African White-backed Vulture breeding behaviour in our rehabilitation flight enclosure. Two birds have copulated multiple times and another adult male has become increasingly aggressive toward people inside the enclosure, suggesting he is in breeding condition.

Our White-headed Vulture pair was moved to a more secluded location on the property and they appear much more relaxed in their new enclosure. They were given a false tree to nest and they have accepted the structure as a roost. We have yet to see breeding behaviour from the pair.