



Southern Ground Hornbill Project
Associated Private Nature Reserves, South Africa



Southern Ground Hornbill Research and Conservation Project – October Quarterly Report 2019

Upcoming breeding season

We are fast approaching the ground hornbill breeding season for the APNR (October – April). After last year's terrible season with only 5 groups breeding, we are hoping for more success this year. So far, there has not been much happening at the nests, but this is expected as there has not been any significant rainfall yet.

Recent ground hornbill meeting

Last week we attended the most recent ground hornbill working group meeting to discuss what has been done in terms of research and what still needs to be done. Some of the latest research looked at the cognitive ability of the birds and the findings were extremely interesting. While experiments are not entirely complete, the first results show that ground hornbills performed similarly to – and sometimes outperformed – other large brained birds renowned for their cognitive capacities, thus making the species a potential new model for studying avian cognition.

This meeting also pointed towards lead poisoning as one of the leading causes of death within the species recently. One of the harvested birds from the APNR (Copenhagen, 2012) recently died from this cause after ingesting a lead bullet.



Figure 1. Logo for the Southern Ground Hornbill task team

Old new nest

Several weeks ago, we were very surprised to find an artificial nest, which we were unaware of, located on Timbavati. The group of birds known as Lornay group have been breeding for years in what we thought was an unknown natural nest. The nest was installed almost a decade ago shortly before a changeover of researchers and somehow managed to slip through the crack. Nonetheless, we were pleased to find that the nest is fully lined, and we are keeping a close eye on their breeding.



Figure 2. The drum nest found, fully lined

Status of Nests

All but one of the nests in the APNR are still in working order. Vlak nest (an experimental cable drum nest), had significantly deteriorated and was unfortunately falling out of the tree. Therefore, we had to push it out. This nest was replaced immediately with one of the new nests designed by the Mabula Ground Hornbill Project. Java nest was also removed on account of it being too close to one of the nearby houses. This nest was replaced in a location as far away as possible from any infrastructure.

New nests have also been installed for the first time on Olifants West, as well as York following the recent sightings of the birds in the area. One more nest is set to be installed in the northern parts of Klaserie. The location of this nest is still yet to be determined.



Figure 3. New Vlak (left), York (middle) and Olifants West (right) nests

End of an era

After nearly two decades of driving around the APNR, the faithful ground hornbill bakkie has finally been put to rest. Unfortunately, it was no longer financially viable, and we found ourselves with a problem. The project relies heavily on a vehicle and without one we can do very little. However, thanks to the generous donations of the APNR community, we are able to purchase a new vehicle. This new vehicle is in the process of being purchased and we will soon be on the road again. Until then, we are borrowing a vehicle from the Mabula Ground Hornbill project.



Figure 4. The old ground hornbill vehicle through the different seasons

Research

After a successful trip overseas, we have managed to analyse some of the vocalisations more comprehensively. The results show that individual birds have signature vocalisations which can allow for recognition by the birds, as well as by us. Each bird appears to produce relatively consistent chorus calls and the calls differ in terms of the number of notes, frequency and length.

Additional vocalisation work has investigated the other vocalisations produced by the birds around the nesting sites. The repertoire of these birds includes chorus, contact, begging, feeding, excitement and alarm calls. Each of these has its own specific acoustic structure which we will be analysing further. The only call which we suspect we were unable to record, is that of the distress call.

This breeding season we will be continuing our work with the camera traps looking into the contributions of all the different individuals, as well as the playback experiments to investigate the aspects of their territorial defence.

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