



## Southern Ground-Hornbill Research and Conservation Programme Quarterly Report – April 2019



### Breeding Season Report

A total of five groups attempted to breed this year. While this is well below the average number of groups which attempt to breed (11 groups per season), the positive is that all five groups successfully raised their offspring. Four of the five nestlings have already fledged, and the remaining nestling is set to fledge within the next couple of days.

Breeding groups and fledging date:

- Pitlochry (Camp George nest) – 24 March 2019
- Karan Khaya – 25 March 2019
- Johnniesdale (Vlak nest) – 11 April 2019
- Janovsky – 23 April 2019
- Addger – still in nest

No birds were harvested this year on account of the unusual season. All the nestling were successfully ringed with metal rings around the right leg.



Figure 1. Addger nestling and metal ring around right leg

### **New Project Funding**

The project has managed to secure new funding towards the research of the species through National Geographic. This funding is strictly allocated towards the research of the project and will be used for much needed equipment involved in camera trap analyses and playback experiments.

### **PhD Upgrade**

The research into the social structure of these birds has been expanded and Kyle has been upgraded from a Masters student to a PhD student. This follows the proposal of additional questions to the current research. The additional questions are based around how climate influences the feeding rates of the individual birds and consequently how it affects their breeding success. Attached is the shortened proposal which was approved by the university.

At the moment the research is still on track to finish towards the end of next year. However, it is largely dependent on the upcoming breeding season. If it is similar to this poor past season, then an extra season might be required.

### **Research Conducted this Season**

Over the course of this breeding season, we have completed a fair amount of work despite the poor season. Camera trap footage of provisioning rates towards the females and nestlings for all five of the groups was acquired and the data extraction has begun.

Playback experiments were also completed on four of these breeding groups. However, more need to be done as the results have been highly variable. Some reactions are aggressive and instant while others are passive and slow, if at all.

### **Unusual Activity**

One of the long-standing groups within Klaserie PNR is showing some unusual group activity. It is uncommon for groups to contain two females in the same social structure, and when it does, one of the females is usually very submissive. Janovsky group appears to have two females, but what makes the behavior unusual is that both females appear to be feeding the chick within the nest. There is a possibility that one of the females is actually a false male. False males are a rare occurrence in which males exhibit female colouration. However, the maximum frequency of their vocalisations signal that both are female. With that said, no vocalisations have ever been analysed from false females so it is still the possibility that it is actually a male. We will be looking further into this.



Figure 2. Camera trap footage of the two possible females within Janovsky group

### **Bird Movements**

Over the past several months, we have been receiving sightings of birds extending to areas previously unoccupied by birds within the APNR, as well as areas outside of the APNR. Olifants West have had numerous sightings of three birds, while a recent report from Moditlo reported birds with metal rings around their legs. These birds are likely to have come from the APNR but it is still to be determined as to which birds they are and which group they have come from. In order to determine this, we will need the ring numbers of the birds which can be extremely difficult to obtain.

It is also suspected that one of the larger groups (Keer Keer – 7 birds) has split into two separate groups of birds, one with three individuals and the other with four. This comes from sightings made by us researchers and guides within the area.



Figure 3. Picture taken from Sausage Tree Safari Camp of ground hornbills on Olifants West.

### **Plans for outside the breeding season**

The years breeding season has extended far beyond the average as we will only be finishing up in the beginning of May. Following this, I will be travelling abroad again to begin the write-up of two of the chapters towards my PhD. I will be away from the end of May until the end of July but can be contacted via email or on whatsapp if needed.

Once I return, we will be installing four new nests of the latest design, as well as relocating Java nest further away from any accommodation in an attempt to minimize window breakages. Damages nests will also be fixed before the birds begin to show interest once again.



Figure 4. Latest nest design. Photo by the Mabula Ground Hornbill Project

## Acknowledgements

We thank the landowners and wardens of the APNR for their continued support and permission to work with the Ground-Hornbill groups on their properties. Special thanks to Timbavati PNR, Klaserie PNR, Tanda Tula Lodge, Ntsiri PNR and Peter Smelting for helping with fuel. Elephants Alive researchers, thank you for your sightings of SGHs in the APNR, they are always appreciated. Many APNR members and staff have been of great help, both logistically and by reporting ground-hornbill sightings. We thank one and all.

Contact the Project:

Kyle-Mark Middleton, PhD student

Email: [nghututu@gmail.com](mailto:nghututu@gmail.com)

Cell: 071 325 8956

Carrie Hickman, APNR Ground Hornbill Project

Email: [carriehickman@gmail.com](mailto:carriehickman@gmail.com)

Cell: 072 345 6584

Dr. Rob Little, FitzPatrick Institute of African Ornithology

Email: [rob.little@uct.ac.za](mailto:rob.little@uct.ac.za)