



## **APNR Ground-Hornbill Project**

### **Quarterly Report**

### **April 2013**

#### **Group updates**

Copenhagen group is spending much time on Kent property in the southern areas of their home range. They have also been seen regularly by Klaserie staff repairing dams near their nest on Hull and they do not appear to be disturbed by the activity there. The juvenile from this season has been seen with the group, confirmation that it fledged the nest safely and is doing well. This group is now 8 individuals strong comprising 1 adult female, 1 adult male, 5 sub-adult males, 1 yearling.

Karan Khaya fledgling has also been observed and photographed with the group making this group up to 9, however mostly 5 birds are seen: 1 adult female, 1 adult male, 2 sub-adult males and 1 yearling.

Interestingly, a female that fledged from the Karan Khaya nest in early 2011 was observed walking solo in January this year but still remains within the group's home range. It is likely that she is in the process of dispersing and we hope that sightings keep coming in to track of her movements.



Karan Khaya: young female photographed on her own.  
Photo: Andrea Campbell, Motswari.



Janovsky: sub-adult male near Hamiltons, KNP.  
Photo: Simon Price.

A second dispersal event was noted this year in March when a sub-adult male originating from Janovsky group was seen in Kruger near Hamiltons Camp. This is 80 kms south east from the Janovsky nest where it was ringed as a nestling seven years ago.

Thanks must go to Andrea Campbell and Simon Price for photographing these chance encounters and providing further insight into SGH dispersal.

## Ringling nestlings

Four APNR nestlings were ringed on 14 Feb 2013 with colour and metal rings. Combinations are provided below in the order: upper left leg, lower left leg, right leg:

Copenhagen: Orange, Yellow, Red

Janovsky: Yellow, Green, Orange

Lornay: Red, Orange, Red

Karan Khaya: Green, Yellow, Green

In addition the KNP nest, Goedehoop, was visited with Willem and Honours. The chick looked healthy and was ringed with the colours Red, Yellow, Green.



Ringling Copenhagen chick at Hull nest. Photo: Zenta Nel

## Sub-adult male capture



Sub-adult males around the trap. Photo: Cassie Carstens

Last month we attempted to capture Copenhagen group as part of an effort to capture sub-adult males for the wild release program co-ordinated by the Mabula Project. The Project was joined by the Mabula Project, Leigh Potter (PhD student, EWT), Katja Koepfel (Vet, Joburg Zoo) and Quentin Hagens.

The group responded well to call-ups and approached the trap several times. One young individual in particular entered the trap on more than one occasion to give the models a bit of a beating. The sub-adult male earmarked for capture entered the trap along with a younger sibling, however he escaped while the curtain was being pulled, leaving the younger individual in the trap which we measured and released straight away. In early May we shall attempt to capture a sub-adult from the Rhino Road group and trust we will have better luck.

## iButtons: preliminary results

- Average nest temperatures and humidity for four natural and eight artificial nests are 25.3 °C and 65.5 % Relative Humidity (RH)
- Lowest average temperatures recorded were similar between natural and artificial nests (12.1 °C and 13.2 °C, respectively)
- Humidity never dropped below 16 %RH and 14 %RH in artificial and natural nests respectively.

- Interestingly, the mean maximum temperature obtained inside artificial nests was 37.2 °C, but in natural nests this was markedly higher, 54.2 °C; a factor of direct sunlight on the iButtons as natural nests are more exposed.
- Nestlings endure temperatures as high as 70.3 °C in natural nests, which may indicate heat stress as being a factor in low breeding success in natural nests as compared with artificial nests, and would indicate the need to place artificial nests in home ranges of those groups that rely on natural nests only.
- Maximum temperature recorded in an artificial nest was 41.5 °C

Statistical analyses will determine if any significant differences exist (a) between nest types, and (b) between nest and ambient conditions.

## Colour rings

Plastic coil colour rings have been used by the Project for seven years to individually identify birds for the purpose of looking into dispersal events and group composition. An three-year old individual from Copenhagen group who was caught in the trap during our capture efforts last month had colour rings that were interlaced and restrictive around the leg. It was not clear for how long the rings had been like this, but to prevent any serious further injury the colour rings were removed prior to its release back with the group.

As a precaution we will no longer be using coil plastic rings on the birds and have suggested to the Action Group that no further use of these rings on Ground-Hornbills be made. As an alternative we will be using light weight plastic “A-rings”. These rings are solid plastic and closed with a small metal split-pin. EWT have been using these on the KNP birds with no negative side effects.

## *Acknowledgements*

We wish to thank the landowners of the APNR, and wardens Colin Rowles, Jaques Brits, Willem Nortier, Paul White, Craig Ferguson and Mario Cesario, 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, and Ndlopfu PNR for helping with fuel. Dow Chemicals continues its generous support of the research. Thank you also to Tim and Nick Hancock for their donation to the Project. Save The Elephant researchers, thank you for your sightings of SGHs in the APNR, they are always needed. Many APNR members and staff have been of great help, both logistically and by reporting ground-hornbill sightings. We thank one and all.

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