

Mabula Ground-Hornbill Project

Progress Report

Reporting Period
April – September 2015



**Mabula
Ground
Hornbill
Project**

Summary: A major release, development of large-scale monitoring programmes, initiating an assessment of the effects of trade and an extensive school outreach in both Limpopo and KwaZulu-Natal have kept us very busy for the last six months. Looking to art to raise awareness and funds has brought the commitment of artist Allen Hallett on board and the partnership has been fruitful with the creation of exquisite life-size sculptures. We have a new intern bringing a new skill set to the team and we are starting to consolidate a lot of our data and start preparing it for publication to ensure that what we learn is available for any interested parties.

Executant: Lucy Kemp
Mabula Ground-Hornbill Project
(016-183 NPO & 13/00/00/723 PBO)

MISSION STATEMENT

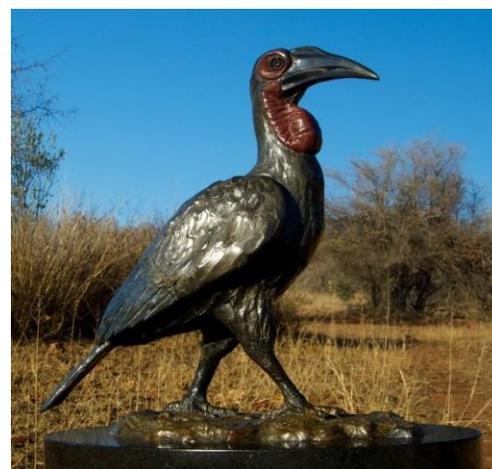
The Mabula Ground Hornbill Project strives to halt and then reverse the decline of the Southern Ground-Hornbill. Our work is done in a multi-disciplinary, multi-pronged approach to ensure that, for such a long-lived and slow breeding species we are able to make an impact as quickly as possible.

HIGHLIGHTS OF THE PAST SIX MONTHS



PROPOSAL FOR CITES APPENDIX II LISTING

In response to the Tanzanian government raising their annual live catch quota to 400 birds and the ongoing range-wide trade in parts we have submitted an application to the Department of Environmental Affairs to initiate the process for having the species listing on the CITES Appendix II list. This will not bring an end to trade but the increased reporting requirements will give us a means to monitor the trade. At present we are simply aware of illegal trade, with many examples found online, but have no way of quantifying if it is a major threat to the populations.



BEAUTIFUL BRONZE SCULPTURES FLYING

A partnership with sculptor Allen Hallett is starting to bear fruit. This was a risky endeavor for the project but we felt we needed to look at alternative ways of building financial sustainability. We found Allen's work exceptional and commissioned a limited edition of beautiful bronzes. We have 5 life-size sculptures and 20 32-cm maquettes on offer, with the first life-size sculpture already snapped up at a game auction at Thaba Tholo and the second set to grace the reception of Mabula Lodge. These are truly beautiful pieces – perfect for a corporate reception area, lodge or home.

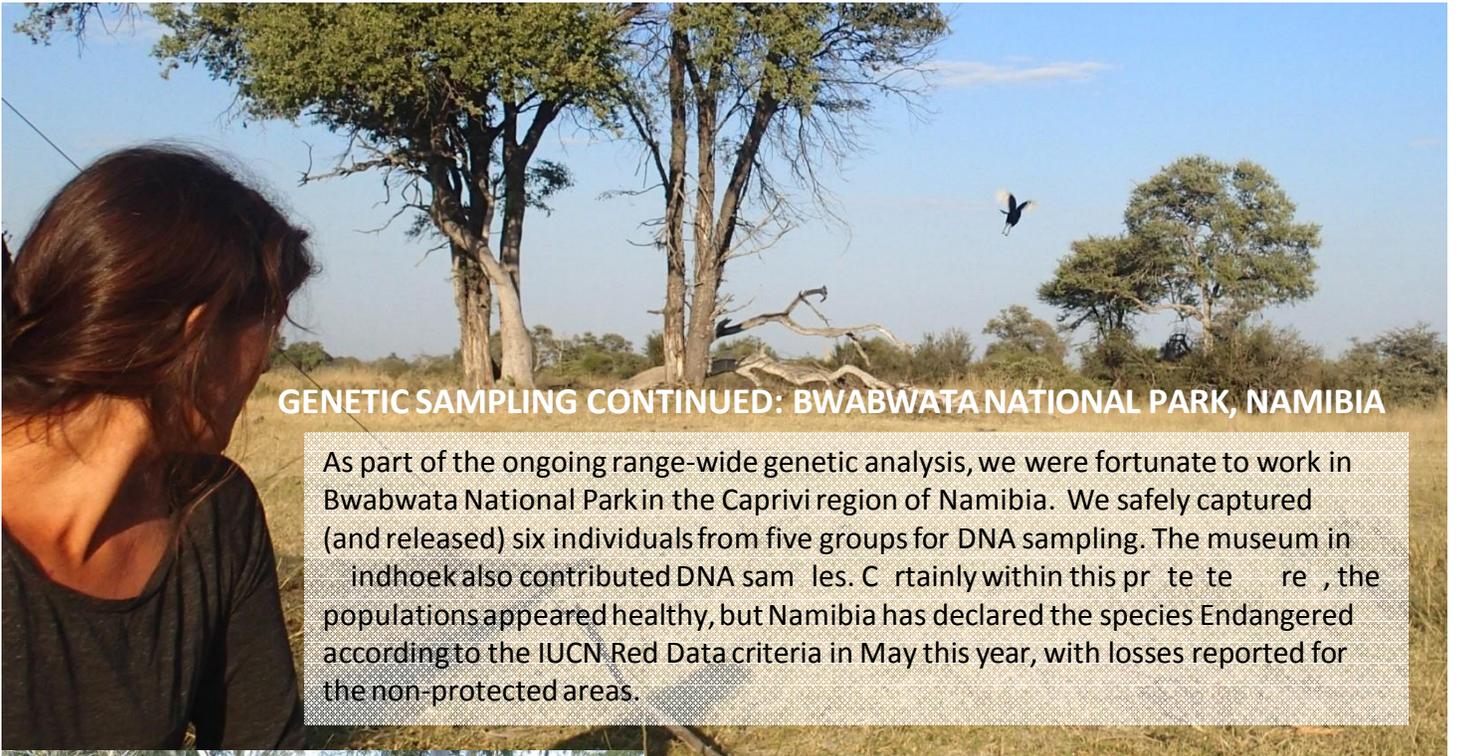


PROVINCIAL MONITORING PLAN FOR KWAZULU-NATAL

In collaboration with Ezemvelo KZN Wildlife, we are nearing completion of the provincial monitoring plan for KwaZulu-Natal. This is the first time a systematic wide-scale monitoring plan for such a naturally-occurring low-density avian species has been put together. We will use the same methodology to monitor the rest of the South African population, and elsewhere in their range, and thus will be able to monitor long-term trends in populations and be better guided as to where conservation measures are required.

NEW MSc STUDY ON THE ENDOCRINE MYSTERIES OF THE SPECIES: SEX AND STRESS

Sophie Neller is launching a new study on various aspects of the endocrine system of the species – especially relating to sexual maturity and stress -- to ensure that our decision making in terms of transport of reintroduced birds, understanding of alpha status and pairing of new pairs is more scientifically based.



GENETIC SAMPLING CONTINUED: BWABWATA NATIONAL PARK, NAMIBIA

As part of the ongoing range-wide genetic analysis, we were fortunate to work in Bwabwata National Park in the Caprivi region of Namibia. We safely captured (and released) six individuals from five groups for DNA sampling. The museum in Windhoek also contributed DNA samples. Certainly within this protected area, the populations appeared healthy, but Namibia has declared the species Endangered according to the IUCN Red Data criteria in May this year, with losses reported for the non-protected areas.



OUR COLLABORATION WITH THE WOMAN'S LEADERSHIP AND TRAINING PROGRAMME:

We continue our work with WLTP in the Hlokozi and Centocow areas of KZN, with preliminary ground-hornbill density assessments nearing completion. We continued discussions with traditional authorities in both areas, and have the go ahead for initiating the communal Custodianship Programmes as a pilot project.



Melmoth-Babanango education outreach: We continued our outreach work in this area, now reaching a total of 29 schools, 10 900 learners and nearly 70 teachers. We continue to use a mix of video, presentation, puppets and fun activities and it makes us happy every time we see a new flock of 'ground-hornbills' in their paper masks walking home from school.



COLLAPSIBLE RELEASE AVIARY: One of the two collapsible release aviaries, sponsored by Montecasino Bird Gardens, has arrived at Mabula for assembly. The aviary, designed by Sean and Deon of Masterwork Architecture Design, is nearing completion and will be taken to Loskop Dam Nature Reserve to be tested as a holding aviary during the construction of the hand-rearing Centre.

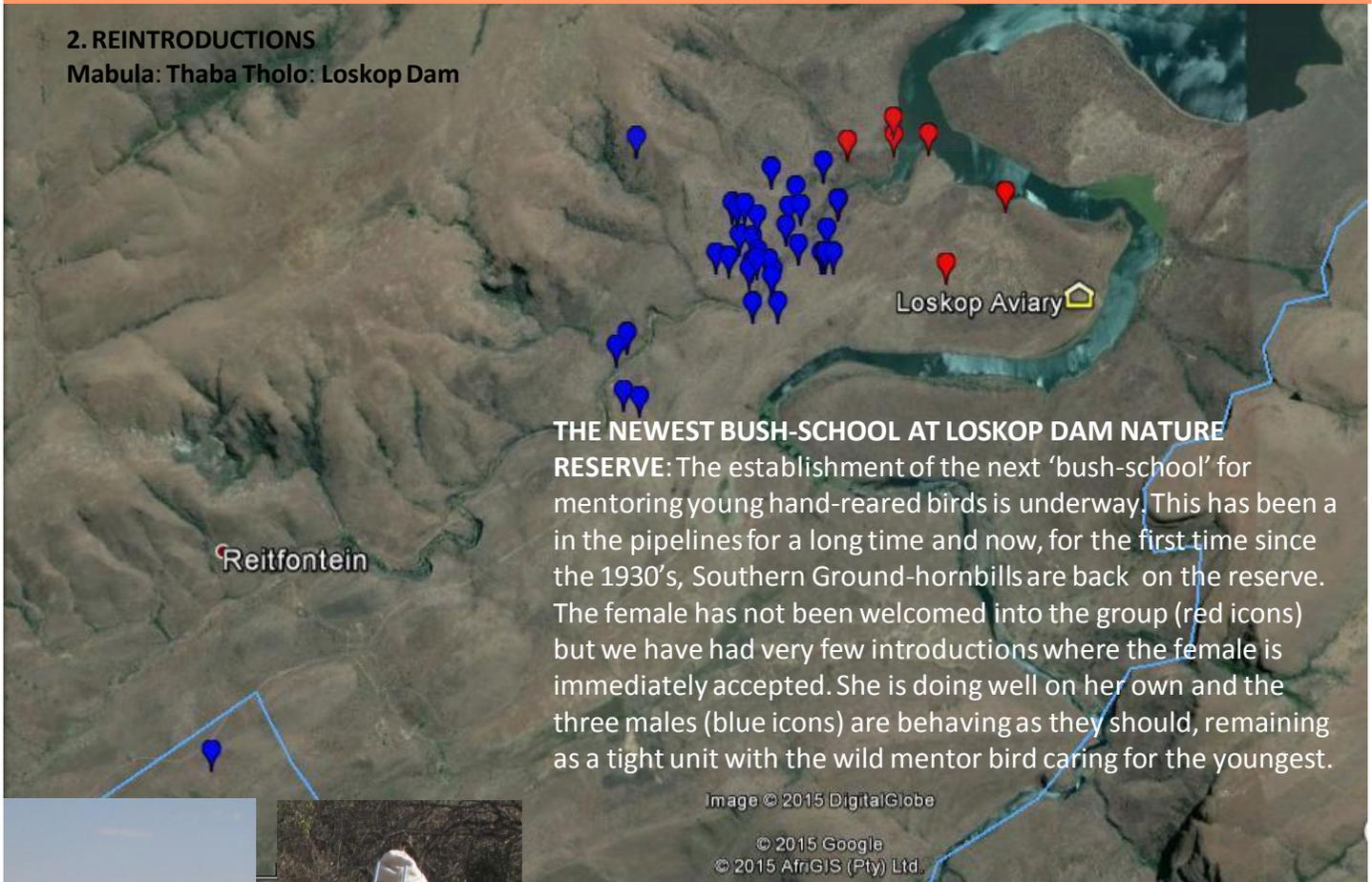


LIMPOPO RIVER VALLEY SURVEYS: As part of an outreach programme to address Musina and Alldays schools, we ground-truthed sighting records from the areas just north of the Soutpansberg in the Limpopo River Valley. The team, using structured interviews, surveyed the area between Tshipise and Pafuri collecting sighting records. There are several groups in this area that have not been reported before. The team also learnt from the school learners that some people in their communities still use poison to deal with livestock predators and one report of the birds being hunted for meat.

NEWS FROM CURRENT RELEASE SITES

2. REINTRODUCTIONS

Mabula: Thaba Tholo: Loskop Dam



Monitor Training: Beginning in July, the two new release monitors, Poppie Phetla and Petros Tlou, were given two months of mentoring by the MGHP team and Delecia Gunn. In addition to this, they were taken to the Mabula Ground-Hornbill Project, Montecasino Bird Gardens and Johannesburg Zoo for hands-on training in tracking, telemetry, husbandry, boma care, behavioural analysis and food preparation hygiene. Mark Gunn from Eco-training assisted with training in bush safety, with an emphasis on the dangerous game that are abundant within the release site.



Fire complicated the release when a massive wild fire swept through the reserve – thankfully some early rains and these areas are recovering nicely and fully in invertebrate life/ ground-hornbill food.

NEWS FROM CURRENT RELEASE SITES

MABULA

In July, we released a hand-reared juvenile male from Montecasino Bird Gardens. Although interactions between this juvenile and the wild group had been positive prior to the release, once he was let out the group began to respond negatively to him. Storm in particular appeared to visibly reject him, knocking him out of the sky whilst in flight. The group would then leave him for the entire day and show more of the same behaviour once they returned in the afternoon. As Storm had already begun to show courtship behaviours towards Kapama, it is thought that it was too late in the season for him to accept a new juvenile to mentor, and so Juke was recaptured after 36 hours and placed back in the boma before being transferred back to Loskop Dam Nature Reserve.

The nest camera is now up and running, which allows us to monitor all of the nest activity without disturbing the group.

On 20 September, Storm was found critically ill, possibly from a suspected snake bite as the onset was very fast, he seemed bothered by his upper thigh and he showed signs of swelling. He was very weak and reluctant to walk, eat or vocalise, was dribbling clear liquid from his bill, had swollen eyes, and a deflated throat pouch. After two days of intensive monitoring he showed signs of improvement and now appears to be back to normal.

THABA THOLO

The sub-adult male Jumbo has completely matured in the absence of an alpha male, and therefore the plan to add a new wild male has been altered, as there is a risk of conflict. The current group of three will be released in November, and a new female and young males will be placed in the aviary to anchor the release group to the area.

In early September, one of the sub-adult males was reported to be showing signs of illness. He was not eating and inactive and so was captured and transported to Dr Chris Kingsley where he was treated for lead poisoning with chelation therapy. He responded positively and is now back in the aviary at Thabo Tholo where the remaining two birds were also blood tested for signs of lead poisoning. The results for the juvenile came back clear; however, the female was showing high levels of lead and also underwent chelation therapy.

NEW ON THE TEAM

We welcome Jonah Gula onto the team for the next 18 months. He brings with him a wealth of experience from a black bear research project he managed in Maine, USA, and we are thrilled to have him on the team.



LOWLIGHTS

Lead poisoning strikes again: The loss of a release bird to lead toxicosis was a great blow to the project. This is a risk we now know well, is one we have published in the peer-reviewed literature and is a risk we include in all of our education and awareness material and is part of every discussion we have with land owners and managers – and yet we continue to lose birds to this.

Wild mortalities: A carcass was collected from a farm in Melmoth where it was discovered in an empty fire reservoir. Where it appeared to have got trapped. Although the carcass was decomposed we will attempt to extract DNA. Another juvenile was found dead in a field in KZN by a vet – cause of death unknown.

ACTIVE THREAT MITIGATION

Trade: We have submitted a proposal to the South African Department of Environmental Affairs to have the species listed as CITES Appendix II. We continue to source trade data where possible to include in this and further analyses.

Electrocution: No progress this quarter.

Poisoning: No progress this quarter.

Lead poisoning: A bird lost to this and an article written for the WRSA magazine and newsletter. We have successfully fund-raised for a field lead analyser to allow us to test birds in the hand and use chelation therapy if required.

Disease: We observed how ill a bird can become and still recover from suspected snake bite. We treated with anti-histamine and antibiotics given in desirable food items.

Loss of nests: We have had several applications from mechanical engineering students to assist with the designs for construction of the artificial nest box programme.

PLANS FOR THE NEXT FEW MONTHS

•**SANBI Scientific Directorate:** We have asked to prepare two presentations: one for the proposal for CITES Appendix II and the second on the Ground-Hornbill conservation programme.

•**Wild capture:** We are still trying to finalise the Botswana research permits.

•There will be a trip to KZN in November to capture wild individuals for DNA and baseline health testing.

•**WLTP collaboration:** There will be a 4-week follow up trip to KZN in November to conduct further interviews in areas yet to be covered.

•**Mobile Boma:** We are still waiting for the aviary netting to be completed and the boma will then be fully assembled at Loskop Dam Nature Reserve.

•**Hand-rearing Centre:** The concept document has been completed and we have begun fund-raising.

•**Loskop release:** The birds will be continually monitored by the two on-site shepherds.

•**Mabula release:** We will continue to monitor and hope that the pair breeds this summer.

•**Museum samples:** We will continue gathering museum samples for analysis.

•**Incubation Workshop:** Lucy will travel to San Diego in October to learn the latest techniques in incubation and embryo-sexing.

•**Custodianship Programme:** We will begin to roll out the programme within the Limpopo River Valley area.

EDUCATION & AWARENESS OVER THE LAST SIX MONTHS

*all sponsors and collaborators are acknowledged in presentations and reports

Print media:

- We published articles in Farmer's Weekly, Mercury newspaper and in both Issues 3 and 4 2015 of the Wildlife Ranching South Africa Magazine

Online:

- Our Facebook page is reaching in excess of 20 000 people for some posts.

Newsletter: June and September 2015

Presentations, meetings and workshops:

- Weekly Modjadji teas and hornbill drives.
- PAAZA Keepers Conference in Durban - Elaine Reeves from Johannesburg Zoo presented on the Ground-Hornbill conservation programme.
- We hosted a group of 13 students from Yale-NUS, Singapore for 6 days where they received lectures on reintroduction biology, wildlife ranching and training in telemetry and tracking skills.
- The AGM was hosted at Mabula and the Minutes have been circulated.
- The Action Group Meeting was hosted at Zaagkuilsdrift and was well attended. There was feedback given from all represented institutions, followed by a workshop to begin development of the Multi-Criteria Decision Analysis for future release sites.
- The Hand-rearing Workshop was held at Bester Birds to update the hand-rearing protocol and plan the coming breeding season for the captive pairs.
- Res Altwegg, David Maphisa (both UCT) and Fitsum Abadi Gebreselassie (WITS) will be assisting with population modelling and Astrid Jarre and Ian Durbach (both UCT) will be assisting us develop a proper multi-criterion decision analysis for the 'where' to put the birds. This will ensure that our decision-making is transparent for our stakeholders. This is a big step forward for the project and, as we will publish the results, will be good for the project all round. By making sure we do this properly, we will be able to report back to sponsors and stakeholders with confidence that we are making the right decisions, including from among the many requests for releases we receive.
- Rufford Conference held in Cape Town in April 2014.

Land Owner Engagement:

- Ntwane community - the community closest to the Loskop release site.
- Farmers Association at Loskop Dam Nature Reserve, twenty landowners.
- Farmer's Association of Makopa (Thabazimbi District).

Schools:

- Limpopo River Valley: 14 schools were visited with a total of 3547 learners and 179 teachers.
- Southern Cross School in Hoedspruit.
- Melmoth/Mtonjaneni/Babanango: 11 schools and the Mfezi Security Guards, over 2 900 learners were reached and 3 new possible nests sites were located.

Other:

- A stall was taken at the 2-day SASOL Bird Fair, at the Roodepoort Walter Sizulu Botanical Gardens.
- Montecasino Bird Gardens brought all of their staff to Mabula to see the project they support.

SUMMARY FINANCIAL REPORT: SUSTAINABLE

The Mabula Ground Hornbill Project has one bank account from which we manage our running expenses. A detailed annual financial report is available on request.

TABLE 2: DETAILS OF SPONSORSHIP RECEIVED OVER THE LAST SIX MONTHS

SPONSORSHIP

Primary:

Mabula & Mokaikai Private Game Reserves.
Montecasino Bird Gardens.
SASOL Ltd.
Seaworld and Busch Gardens.

Contributing:

Dallas Zoo.
Beauval Zoo.
Honolulu Zoo.
Rotterdam Zoo.
Avian Behaviour International.
Bester Birds.
Fisher Reed.

In-Kind:

Dr Katja Koeppel (veterinary consult).
Dr Chris Kingsley (veterinary consult).
Cell C (calls and phones).
IDEXX (blood samples).
National Zoological Gardens of South Africa (pathology & molecular laboratory).
Montecasino Bird Gardens Hospital (use of hospital).
Sandi Calverley (accommodation).

SUMMARY OF SOME OF THE ACTIVITIES OF OUR LOCAL COLLABORATORS AND PARTNERS:

National Zoological Gardens	Maintains the stud book and captive propagation programme, provides post-mortem support, nutritional & behavioural advice and undertakes all genetic analyses at their state-of-the-art laboratory.
Percy FitzPatrick Institute	Undertakes APNR harvest, wild capture, research into spatial use of habitats and dispersal.
Mpumalanga Tourism and Parks Agency	MTPA is our partner on the hand-rearing centre providing the land and logistical support. Delecia Gunn rears harvested chicks, continues education and awareness, and acts as the main advisor on hand-rearing and captive socialisation.
Johannesburg Zoo	Hosts captive birds, rearing harvested chicks, grow rearing capacity, continued education and awareness, veterinary support and vaccine development.
Endangered Wildlife Trust	Undertakes nest monitoring, harvest and ringing of fledglings in Kruger National Park, research into habitat use & dispersal.
Montecasino Bird Gardens	Hosts two breeding pairs, awareness campaign, fund-raising support, rears both harvested and captive-bred chicks.
Bester Birds	Hosts birds for the captive breeding programme.
Umgeni River Bird Park	Hosts a pair for captive breeding and is increasing awareness in KwaZulu-Natal.
Boscia Birds	Host a captive pair and young birds and hand-rear harvested chicks.
Zaagkuilsdrift Bird Sanctuary	Hosts birds for the captive breeding programme.
Lory Park Zoo	Hosts birds for the captive breeding programme.
Hoedspruit Endangered Species Centre	Hosts birds for the captive breeding programme and provided a wild female for a release.

THANK YOU TO ALL OUR CURRENT SPONSORS

PRIMARY CORPORATE SPONSORS:



CONSERVATION GRANTS:



IN-KIND SPONSORSHIP:



Thank you