

Project Update: February 2013

Summary: Another six months has flown by and the dust is settling on another successful harvest season. Many factors contributed to making this a success. Corporate partners for flights and vehicles allowed us to be where we needed to be and the chicks were transported to the care of the rearers as quickly as possible. A conservation partnership with Birdlife has opened up new opportunities for the project and a new conservation grant with Rufford has allowed us to expand what we are doing. The continued loyalty of long-term sponsors ensures the sustainability of the Project and quality volunteers expand our capacity to achieve our annual goals.

HIGHLIGHTS OF THE PAST SIX MONTHS

- **Partnering with Birdlife South Africa as a Birdlife Species Guardian:**

Being a part of the Birdlife family is hugely beneficial to the project and a nice recognition of the work the project has done to date. It opens up the international Birdlife network and allows for formal recognition of long-term sponsors to be recognized within an international context.

- **Another successful harvest season:** This was the easiest harvest season so far, thanks to the Airlink flights. We only had to do one transit drive from the Lowveld to Johannesburg – the rest of the chicks were flown. This reduced wear-and-tear on both drivers and vehicles and reduced stress on the chicks, thus increasing their chances of survival. Including the wild-bred Mabula chick, a total of 11 chicks were harvested (with only two succumbing). Kate Meares' FitzPatrick harvest team were extremely efficient. Without the loan of vehicles from Imperial Truck Rental and the National Zoological Gardens, we would have struggled to cover the ground required. Finding additional vehicle sponsorship remains a priority.

The graph below shows the expansion of the harvest and increased survival of the harvested chicks.

New hand-rearers and structure through MOU's:

This past season saw two new groups join the hand-rearing team. Montecasino Bird Gardens had reared captive-bred chicks before but never harvested chicks. This shows Montecasino's increasing commitment to the conservation of the species. The team at Boscia Birds had never reared these chicks before (though they have had great success with other difficult species) but through good communications with experienced rearers they did an excellent job. Hand-rearing is now structured through an MOU with each institution and allows for standardization in technique and outcome.

Limpopo Valley Survey:

We completed the annual survey of the Limpopo Valley during the breeding season. There were no rains in the area until the floods arrived in late January and so this is one of the worst breeding seasons since the Project began monitoring the area, with just one group successfully rearing a chick. We continue outreach in the area through various forums, including investigating the poisoning threat in the area as one group is suspected to have been poisoned.

- **GIS & Sighting Database:** The distribution database is fully updated and citizen scientists can now submit their sighting through the website <http://www.ground-hornbill.org.za/sighting.php>. Our data will be included in the SABAP 2 analysis and we are also collating the Ezemvelo KZN data for inclusion. It is likely that causes for the current range reductions are all anthropogenic, but this will also allow us to assess any changes due to climatic forces. *Extending the sighting databases for all of sub-Saharan Africa:* we have SGH and NGH sighting data from Tanzania and Niger for inclusion in the master database. We will follow up on all other atlas data for the full range and so extend the scope for monitoring the global population of both *Bucorvus* species.

More releases and the lessons keep coming:

- **Madikwe:** The Madikwe birds started to roam far and wide once the rains sent in, paying little regard for the boundaries we set for them – they have been to several neighbouring farms and made several sojourns into Botswana. This has made it impossible for the shepherd to continue to collect regular data other than locality data. The Madikwe team have put a huge effort into visiting all the neighbouring farmers and speaking to everyone, including the labourers, about the birds. The response has been good and they have also started visiting the villages in Botswana across the border. The birds are healthy and foraging well with the current abundance of food. Although they are less manageable, being wilder than their habituated predecessors, it does mean there is now a group roaming the area and doing what they should be doing naturally. We are monitoring them as best we can and the Madikwe team goes out as often as possible, often over quite large areas, to check on their location. Madikwe have radio contact with the 28 surrounding properties and all are reporting the birds when they are seen. The young male (Shimuweni) was predated by a caracal or serval near Madikwe, about 28 km from the release site.
- **Mabula:** The group has been great, breeding successfully again until the untimely demise of Kingfisher, the breeding female. Sad as it was, this has eliminated the risk of such an aggressive adult and made the group wilder. We quickly brought in another female, as any lone females in the area would naturally, on hearing a gap in

the dawn chorus, have come to investigate. We moved a five-year old female in as a replacement mate for Storm and the interactions between them whilst she was in the boma were very positive. She joined the dawn chorus and they were feeding each other through the fence. However, on release, Jac (sub-adult male) flew after her and she must have got a huge fright, having lived quietly and calmly in captivity all her life, and this caused her to go into hiding in dense bush on the edge of Mabula, where she has remained for over a month. She has skulked on the periphery since the release, but is never out of earshot of the group and we follow up on her twice a day. She is foraging well, is extremely alert and has, for the last two months, been in 'verbal negotiations' with the group but has not yet joined them. There is no aggression and so we just wait and watch. Kingfisher's last egg hatched on the 29th November and was incubated (by Chris Kingsley) and successfully reared to fledging (by Delecia Gunn).

Pending releases:

- **Capture and transport of five birds:** Together with Delecia and St. John Gunn, James and a vet team from NZG, we caught and processed seven of the reared birds (checking new vaccines are effective and implanting Identipet microchips) and then moved five to their new release aviaries. Two young males went to enlarge the Madikwe group and two young males and a female to the new Thabazimbi site. All ran very smoothly and the birds are now settled in their new bomas.
- **Training:** The Thabazimbi-site shepherd, Fannie Ntshole, has spent a week at Mabula for his basic training with an additional week at his site. He is excellent in the bush and has mastered the telemetry system. He is only semi-literate so we have to adjust the CyberTracker system to be more icon-based and this will be ready before the birds are released. He is very excited to be part of this Project.

Hornbills abroad:

Europe:

Genetics collaboration: Eric Pasquet (Paris Natural History Museum) will assist with the genetics samples from European zoo and museum samples.

Museums: Lucy assessed specimens in two museum collections (Paris Natural History Museum and British Natural History Collection, Tring, UK) for extraction of DNA samples. There are many that can be used, some dating back to 1870.

EAZA: We presented at the European Zoos and Aquarium Association annual conference in Austria and now have increased collaboration from European zoos, in particular Beauval Zoo, France, and support from the European Hornbill Taxon Action Group (TAG). The zoo conference highlighted the need for monitoring of trade in wild hornbills (possibly through

CITES Appendix II). Many zoos are still buying wild birds as the aggression of captive-bred birds makes them highly undesirable for captivity. We will collaborate with the TAG to assist where possible with protocols that will reduce this aggression and allow for healthier captive populations. One such action will be getting the birds to keep their young with them and form more normal social groups than the pair structures that are currently maintained.

Sub-Saharan Africa:

We presented a poster at the Pan African Ornithological Congress meeting in Arusha, Tanzania. We met with representatives from all ground-hornbill range states and found that outside of South Africa, Tanzania, Zimbabwe and Botswana there is little focussed work on the species. We will work to assist where possible to initiate monitoring and threat mitigations.

* And while we were there couldn't resist the lure of climbing Mt. Meru.

THREAT MITIGATION

Electrocution: Eskom has insulated transformers at all but one of the release sites through the EWT Energy Partnership.

Poisoning: A bird was lost at Loskop to poisoning when a neighbouring farmer poisoned at harvest time when his crops were ripe). MTPA is investigating. A group was also poisoned in the Limpopo study site. We are currently investigating ways to increase awareness and tackle this issue.

Disease: The birds for release at the Madikwe and Thabazimbi sites were vaccinated and the vaccine has been developed to a stage where we only need to handle the birds once, thus greatly reducing stress and risk of injury, thanks to a collaboration with Deltamune and Dr Katja Koeppel.

Window-breaking: The perforated vinyl film at the Pokonong School and various hunting camps is working. There are reports of the hornbills walking between the buildings but not breaking a single window. A cost-effective and easy-to-apply product that should make a difference in reducing persecution.

PLANS FOR THE NEXT SIX MONTHS: April 2013 – September 2013:

- **Release sites:**
 - ✓ **Thabazimbi Release Site:** The birds are in the release boma and will be released within the month.
 - ✓ **Loskop Dam Release Site:** The boma is complete but the issue of poisoning in the area needs to be addressed before we can release any birds onto the reserve. MTPA is investigating solutions to this.

- ✓ **Madikwe Release Site:** The birds are in the release boma and will be released within the month.
- **CITES:** Initiate the process of moving towards a proposal of having the birds included as a CITES Appendix II Species.
- **Reintroduction framework:** Complete the formal document for the reintroduction plan within IUCN Reintroduction Guidelines, for circulation to the Action Group.
- **Poisoning:** Hold a workshop to assess how best to address the poisoning issue. Engage with an advertising agency to compile a national awareness campaign.
- **Posters and pamphlets:** Print these in the next few months.
- **Boma:** Rebuild the Mabula boma.
- **Mobile Boma:** Find funding for the construction of a mobile boma that can be erected at release sites, negating the need for the expensive current permanent bomas.
- **International Hornbill Conference, Manila, Philippines:** Lucy has been invited as a speaker, presenting a paper that will form the basis of the presentation and also the reintroduction document. This will include a formal analysis of past reintroduction attempts. Lucy will also visit Singapore to learn from their artificial nest programme.
- **New sites:** Site visits to three potential new sites across the Limpopo Province and one in Kwa-Zulu Natal.
- **FGASA:** Present on-going lectures to FGASA (Field Guide Association of South Africa) students.
- **Craft:** Develop our craft initiative as a way of increasing awareness and raising funds.

Publicity in the last six months

***(all sponsors and collaborators are acknowledged in presentations and reports)**

- Launch of the new website: www.ground-hornbill.org.za. This will have a searchable database for all ground-hornbill literature and will serve as a centre of information about the birds, their plight and current conservation action. It also highlights and acknowledges the importance of our partners, collaborators and sponsors;
- Pamphlets in Afrikaans were distributed at more Farmers Meetings;
- Pamphlets in Setswana were distributed to all the schools, clinics, police stations, etc. in the Mabula and Madikwe areas;
- Article in 'The Post';

- New general posters and pamphlets are at the designer for final layout;
- Attended Polokwane Eco-School Annual Awards;
- Sent out three newsletters (see website);
- Rode in the Momentum 94.7 cycle challenge: we raised over R12 000;
- Manned a stall at an orchid conference in Brits; and
- SASOL has brought Ogilvy Public Relations on board to assist us getting the message out.

New publication:

Theron, N., Dalton, D., Grobler, J.P., Jansen, R & A. Kotze. 2013. Molecular insights on the re-colonization of the Limpopo Valley, South Africa, by Southern Ground-Hornbills. *Journal of Ornithology*. DOI10.1007/s10336-013-0937-4

Pending articles (in press):

- Airlink In-Flight Magazine & African Birdlife

Presentations:

- European Zoos and Aquariums Association Hornbill TAG group meeting: Innsbruck, Austria.
- KZN Conservation Forum: Howick, KZN.
- Chester Zoo, UK.
- Poster at the Pan-African Ornithological Congress: Arusha, Tanzania.
- Awareness Modjadji Tea talks and Hornbill Drives: Mabula Private Game Reserve.

Education and awareness:

- This beautiful colouring page sparked a desire to further develop our education and awareness campaign and we have had an early childhood development specialist working with us to develop age-appropriate campaigns that will soon be available for download on our website. This will also be adjusted for inclusion in the WESSA Eco-Schools programme and various other conservation education forums. The programme is designed around English literacy and natural history subjects and takes both the national curriculum and environmental education theory into account. We would like to have the activity material available in isiZulu, Afrikaans and Setswana.

- The material is designed to complement the new posters and brochures and so the activities will be fun, engaging but will allow learners to take home more than just a pretty picture.

FINANCIAL STATE OF THE PROJECT: SUSTAINABLE

We are extremely grateful for all the sponsorship and support that we received in the last six months (see Table 2 for details).

Table 2: Details of monthly sponsorship and staff developments.

MONTH	SPONSORSHIP	STAFF
OCTOBER	Mabula & Mokaikai Private Reserves Monthly Sponsorship	-
SEPTEMBER	Mabula & Mokaikai Private Reserves Monthly Sponsorship MAJOR SPONSOR: Rufford Small Grants Foundation	Heinrich Nel joins the team.
NOVEMBER	Mabula & Mokaikai Private Reserves Monthly Sponsorship. Tribute sponsorship in memory of Nicole Kehl CONTRIBUTING SPONSORSHIP: Potawami Zoo	-
DECEMBER	Mabula & Mokaikai Private Reserves Monthly Sponsorship Loan of vehicle by Imperial Truck Rental (insured by SATIB) Loan of vehicle by National Zoological Gardens MAJOR SPONSORS: Cell C - all communication needs sponsored. This will be an ongoing sponsorship. Airlink : All Lowveld-Jhb return flights required for the chicks with one of us on board (12 in total this season). Chester Zoo : sponsorship of tracking equipment.	-
JANUARY	Mabula & Mokaikai Private Reserves Monthly Sponsorship Loan of vehicle by Imperial Truck Rental Loan of vehicle by National Zoological Gardens	Volunteer Tyler Andrews leaves to return to the USA (database complete). Volunteer Jennifer Gerard-Pearse arrives from UK (formal education programme).

FEBRUARY	Mabula & Mokaikai Private Reserves Monthly Sponsorship MAJOR SPONSOR: Sacramento Zoo CONTRIBUTING SPONSOR: Vogelpark Avifauna	Charles and Hein write their FGASA exams. Natasha passes the Univ. of Cape Town post-graduate Biostatistics course.
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SUMMARY OF SOME OF THE ACTIVITIES OF OUR COLLABORATORS AND PARTNERS

National Zoological Gardens	Maintains the stud book and captive propagation programme, post-mortems and nutritional advice and leads all genetics work. Also initiated a study of blood parasites
Percy FitzPatrick Institute of African Ornithology	Successful APNR harvest, leading wild capture, continued research into spatial use of habitats and dispersal.
Mpumalanga Tourism and Parks Agency	Delecia Gunn hand-reared two chicks from the harvest, continues educations and awareness and acts as the main advisor on the hand-rearing.
Johannesburg Zoo	Hand-reared four chicks from the harvest; continued Education and Awareness.
North West University	Hendri Coetzee continues his work on the social aspects of conservation of the species.
Endangered Wildlife Fund	Successful nest monitoring, harvest and ringing of fledglings in Kruger National Park.
Montecasino Bird Gardens	Excellent awareness campaign, rearing both harvested and captive-bred chicks.
Umgeni Bird Park	Hosts a pair for captive breeding and is increasing awareness in Kwa-Zulu Natal.
Boscia Birds	Hand-reared harvested chicks and hosts birds for the captive-breeding programme.

