IN THIS ISSUE
Editorial: Five-year milestone ... 1
Feedback and planning workshop ... 1
Update on flamingos and power lines ... 2
National bustard census ... 4
Fish-Eagle electrocution ... 5
Upload your reports onto the EIS! ... 5
Power line surveys:
- Aroab 33 kV line (July 2013) ... 6
- Trekkopje-Henties Bay 66 kV line (October 2013) ... 7
- Trekkopje-Wlotzka (April & August 2013) ... 8
Power line incidents ... 8

FIVE-YEAR MILESTONE
The NamPower/Namibia Nature Foundation Strategic Partnership is now five years old!
During the past 4-5 years we have been occupied in creating awareness about wildlife and power line interactions and their consequences; training; gathering information on such incidents; and developing a multi-disciplinary environmental information service.
The focus for the next phase – namely to address the impacts of these incidents, and to plan, implement and monitor mitigation measures – was the subject of a recent planning workshop.
This issue also brings you update on the flamingo tracking initiative; the bustard and power lines project; and the power line surveys and incidents that have been reported over the past six months. Many thanks to all for these ongoing and invaluable contributions!

FEEDBACK AND PLANNING WORKSHOP
A milestone feedback and planning workshop took place in Windhoek on 17 October 2013.
The objectives of the workshop were to:
- Provide feedback on wildlife/power line incidents recorded to date
- Provide feedback on new lines being planned, and on sections of line that have already been marked and the effectiveness of this mitigation
- Brainstorm in order to prioritise sections of line for applying/testing new mitigation; and/or for further monitoring
- Discuss budgetary implications of mitigation and make (provisional) recommendations for generic guidelines for EIA practitioners.
The participants were mainly from NamPower: Abiud Kaura, Hendrik Espag, Nico Goagoseb, Hansie Peens, Dockter Kandjou and Daggga Zimmermann (Network Operations); Ernst Krige (SSP); Danie Louw and Reginadia Haihambo (SHEW); Karl-Heinz Wagner (PDS); and also two MSc students, Julia Amukwa and John Pallett, and his field assistant Allen Kafene; and Mike and Ann Scott.
Ernst Krige first provided an overview of new power lines being planned. The present demand for energy (650 MB p.a.) is likely to increase to 1000/1300 MB p.a. over the next 15-20 years. The power line network will increase accordingly, with the forecast being at various levels of probability.
Discussing the mapping of areas for the planning of mitigation  

( photo Ann Scott)

Ann Scott then provided feedback on wildlife/power line incidents recorded to date. Current records include 280 animals in 233 incidents, chiefly bustards (44%; excluding further surveys still in progress, see below) and flamingos (25%). The spread amongst the groups of power line structures involved is: HLPCD/A-frame (31%), wooden pole (21%), pylon + Kamerad (21%), pylon (9%), guyed-V (15%) and monopole (3%).

John Pallett presented the preliminary results of his bustard research project. The present surveys of four lines in the South will continue until the end of 2014. The highest number of mortalities has been recorded for Ludwig’s Bustard, with the (provisional) estimate being 0.6 bustards/km/year (compared to 1 bustard/km/year in the Karoo, South Africa).

Julia Amukwa reported on progress with her project to investigate the role of bird nests in power outages, and identify possible mitigation actions. So far she has designed field sheets for public volunteers; completed the project design for 2013-2014; and drawn up an equipment budget. Further plans are to visit more areas and locate the best testing sites; scout for equipment suppliers; and begin with method testing.

These presentations were followed by a brainstorming session on the way forward, focussing on evaluating mitigation that has already been fitted, and prioritising sections of line for applying/ testing new mitigation and/or for further monitoring. Further details will be reported in the following newsletter.

Much has been achieved with these constructive discussions, which will be continued on an ongoing basis. Everyone was thanked for their participation and positive inputs, in particular Danie Louw and Abiud Kaura for their help with organising the workshop, and Karl-Heinz Wagner for ongoing support; the presenters; and the Namibia Hotel and Tourism School of the Polytechnic of Namibia for providing the venue and refreshments.

GREATER FLAMINGO AT MILE 4 ON 22/04/13; NOTE THE AERIAL ON THE BATTERY-POWERED PTT AND GREEN RING WITH ID: NFX  

( photo Mark Boorman)

UPDATE ON FLAMINGOS AND POWER LINES

Two Greater Flamingos and one Lesser Flamingo were successfully fitted with GPS satellite tracking devices (platform terminal transmitters or PTTs) at Mile 4 Saltworks, Swakopmund in January 2013 (see previous newsletter, No. 11 March 2013).

Tracking data received from CLS/Argos over the past six months have shown localised nomadic north-south movements (see below and page 3), indicating that the trackers have been functioning according to expectations; that the birds normally fly at relatively low altitudes for local movements; and that the flamingos do indeed fly during times of darkness or poor light.

The details of the recorded flamingo movements are indicated below and on the map on page 3:

- On 30 April 2013 between 16h13 and 19h13, the Greater Flamingo fitted with a solar-powered PTT (ID no. 122802, plastic ring code NFF) flew south from Mile 4 Saltworks to Walvis Bay – a straight-line distance of about 35 km - and returned to Mile 4 on 5 May between 04h07 and 07h06, possibly due to the strong east wind conditions.

- On 21 May between 15h14 and 21h14, the Lesser Flamingo fitted with a solar-powered PTT (ID no. 122803, plastic ring code NFZ) flew north from Mile 4 Saltworks to Cape Cross Saltworks – a straight-line distance of almost 100 km – where it remained.

- Between 29 May at 14h11 and 30 May at 02h10, the Greater Flamingo fitted with a battery-powered PTT (ID No. 122804, plastic ring code NFX) moved 17 km south to a point south of the Swakop River mouth; its next fix (on 30 May at 14h09) was at Langstrand, further to the south and then it moved down to the Bird Island area.
Why do flamingos fly under conditions of poor light? According to Dr Tony Williams (former ornithologist for Cape Nature Conservation at Walvis Bay), flamingos either fly at night or, if travelling by day, do so at considerable height, in order to avoid predation by raptors.

Large-scale movements eastwards and inland were anticipated only after good rains inland, and the project unfortunately hit a relatively dry period, with limited movement inland.

Unfortunately, after six months, the Lesser Flamingo went off the air at Cape Cross in June, and has not been observed since; the second, a Greater Flamingo, died at Swakopmund in July and the tracker was recovered by Mark Boorman; and the third, also a Greater Flamingo, died near Walvis Bay in August. This tracker has also been recovered, thanks to the kind assistance of the Appollis family of Walvis Bay, who found the device on the dead bird near the Bird (Guano) Island north of Walvis Bay and took it home for safe-keeping, and then to their place of business in Walvis Bay while they tried to track down its owner. Meanwhile, we were also searching from our side; and Chief Inspector Gerber of the Namibian Police Service in Walvis Bay and his team were able to locate these precise localities on the basis of the last signals the tracker sent from these sites, supplied by Dr John Mendelsohn. Many thanks to all for this help.

Large numbers of flamingos are being observed on the coast at present: 141,000 were counted here in July 2013 during the national MET wetland bird census. According to MET ornithologist Holger Kolberg, these high numbers are considered to be normal; however, with the unusually high rainfall inland over the past few years, many of the flamingos stayed inland and bred successfully there, rather than return to the coast in winter, and as a result numbers have been lower during this time. These birds have now returned to the coast, and the good breeding is evidenced by the many young birds being seen here now.

Large numbers of dead flamingos are also being observed on the coast. This may be a natural phenomenon, given the large numbers present and the resultant increase in competition for food and space. However, some investigations are being made into possible causes of mortality, in order to try and confirm several speculated reasons.

Once there are good rains inland and the flamingos start moving there again, the next steps being planned are to fit the trackers to two more birds and to carry on with the tracking initiative. In the meantime we are still searching for the third device.

The tracking of flagship Red Data wetland bird species such as flamingos is a ground-breaking initiative of the "Flight paths for wetland flagships" project, funded by the Environmental Investment Fund (EIF), the Nedbank Go Green Fund and the NamPower/NNF Strategic Partnership. It is hoped that the flight paths that emerge will indicate focal areas for addressing potential interactions between flamingos and overhead lines – one of the main concerns of the Partnership. It should be kept in mind, however, that at best, the data obtained will indicate a straight line between two reliable GPS coordinates, and that further investigations will be needed to plot actual flight paths between such points in more detail.

Since January 2007, 26 incidents involving 59 flamingos on power line structures in Namibia are on record (NamPower/NNF Strategic Partnership records). These records have been submitted by NamPower personnel, as part of standard line inspection procedures and in collaboration with the Partnership, and by members of the public. As a pro-active means of minimising the chances of collisions of flamingos and other birds, NamPower is fitting mitigation to sections of new power lines identified as being sensitive to such species through the Environmental Impact Assessment (EIA) procedure. Retrofitting of existing lines – although more expensive and difficult – is also receiving attention (see pp 1-2). Line inspections/monitoring and the reporting of incidents are also part of standard procedure.
NATIONAL BUSTARD CENSUS
John Pallett (email john.pallett@saiea.com)

Say, for argument’s sake, that 50,000 Ludwig’s Bustards collide with power lines in southern Africa every year (an estimate that is not unreasonable). What proportion of the total population is that? 10%? Half? ... To put it differently, how significant is the threat to bustards from power lines? To answer this, we need to get some basic information on the total Ludwig’s Bustard population, and on their breeding dynamics.

This was the motivation for taking long drives along Namibia’s quietest back roads on the inland edge of the Namib, to count all bustards. In June and July 2013 we travelled from central Namibia north-westwards, and then took a similar trip headed southwards, through about 4,000 km of some of the country’s most spectacular pro-Namib scenery, scanning for the characteristic bustard profile of long neck and bulbous head (“we” being John Pallett, supervisor Peter Ryan and field assistant Allen Kafene). While the scenery was enchanting, the sad truth was that bustard numbers were low. We can confidently report that the area north of the Ugab River up to...
disturbance at the nest can quickly drive the parents to abandon the nest permanently. It is going to be very difficult to figure out how many chicks are normally produced per year, and how many of these are recruited into the population. These are issues that need an inspired and imaginative approach. Any ideas out there?

Also see: http://travelnewsnamibia.com/news/bustard-and-power-lines-project-bustard-and-power-lines-project/
POWER LINE SURVEYS

Power line survey: Aroab 33 kV HLPCD line (100 km)
Aroab – Koës
9-10 July 2013
Participants: Pieter Cloete, Johannes Haman (NamPower);
Mike & Ann Scott

Greater Flamingo
26.11370S 19.22604E
Collision
VULNERABLE species in Namibia

Kori Bustard (juvenile)
26.15467S 19.30058E
Collision

Bustard
26.27704S 19.57416E
Collision

235 Bustard
26.33973S 19.60731E
Collision

237 Lappet-faced Vulture
26.35884S 19.61476E
Electrocution
VULNERABLE species in Namibia and also GLOBALLY THREATENED

238 Bustard
26.68435S 19.63168E
Collision

26.68435S 19.63168E
Collision
Power line survey: Trekkopje-Wlotzka 132 kV + Trekkopje Bypass 220 + 66 kV (100 km)  
Arandis  
22 April 2013  
Participants (AREVA): Richard Gurirab, Helmut Ochurub, Kaarina Nkandi  
20 August 2013  
Participants (AREVA): Sandra Muller, Kaarina Nkandi

Ludwig’s Bustard  
22.12087S 14.83672E  
Collision, fresh  
GLOBALLY THREATENED species

Power line survey: Trekkopje Bypass and Trekkopje-Henties Bay 220 kV + 66 kV (Bypass); 66 kV (65 km)  
8 October 2013  
Participants: Chenault Sabattie, David Natanael (NamPower); Mike & Ann Scott

Korhaan  
22.12087S 14.83672E  
Collision (Bypass)

Flamingo (a)  
22.13488S 14.62019E  
Collision  
VULNERABLE species in Namibia

Flamingo (b)  
22.11903S 14.86883E  
Collision  
VULNERABLE species in Namibia

Continued on p8
Continued from p7

Bustard
22.13467S 14.61890E
Collision

Crow
22.12892S 14.45867E
Electrocution?

Flamingo
22.12863S 14.45496E
Collision
VULNERABLE species in Namibia

Flamingo x7
Bustard (older bones)
22.12820S 14.44219E
Group collision
VULNERABLE species in Namibia
POWER LINE INCIDENTS

Greater Flamingo (6 birds)
Trekkopje-Wlotzka 132 kV line
Near Wlotzka Desalination Plant
22.37161S 14.44832E
Group collision, fresh
VULNERABLE species in Namibia
Reported by Kaarina Nkandi & Richard Gurirab (AREVA)
15 April 2013

Cormorant (species unknown)
Namdeb MA1, aerial ropeway
28.57289S 16.35800E
Collision
Reported by Jefta Ampueja
15 May 2013

Flamingo (species unknown)
Namdeb MA1, pumping structure
28.50142S 16.27942E
Collision after feeding in pond
VULNERABLE species in Namibia
Reported by Jefta Ampueja
17 May 2013

Lesser Flamingo
Namdeb MA1, 6.6 kV “X-mas tree” power line
28.50506S 16.28275E
Collision, fresh
VULNERABLE species in Namibia and also GLOBALLY THREATENED
Reported by Jefta Ampueja
5 June 2013

Kori Bustard
Bismarck-Rehoboth 66 kV line
Farm Aris, Windhoek
22.77592S 17.16994E
Collision
Reported by Hanjo Böhme
5 June 2013

Damara Hornbill
Van Eck-Omburu 220 kV line
Omaruru
21.87106S 16.43522E
Fresh; first hornbill collision on record in Namibia
Reported by Peter Cunningham
21 June 2013

Kori Bustard
Van Eck-Omburu 220 kV line
Omaruru
21.69083S 16.25394E
Reported by Peter Cunningham
21 June 2013

Kori Bustard
Bismarck-Rehoboth 66 kV line
Farm Aris, Windhoek
22.77592S 17.16994E
Collision
Reported by Hanjo Böhme
5 June 2013

Damara Hornbill
Van Eck-Omburu 220 kV line
Omaruru
21.87106S 16.43522E
Fresh; first hornbill collision on record in Namibia
Reported by Peter Cunningham
21 June 2013

Kori Bustard
Van Eck-Omburu 220 kV line
Omaruru
21.69083S 16.25394E
Reported by Peter Cunningham
21 June 2013
Lappet-faced Vulture
Van Eck-Omburu 220 kV line
Omaruru
21.99503S 16.60944E
VULNERABLE species in Namibia and also GLOBALLY THREATENED
Reported by Peter Cunningham
21 June 2013

Turtle Dove (3-4 birds)
Auas-Omaere 132 kV line
Witvlei
22.43847S 17.68183E
Apparent collision?
Reported by Peter Cunningham
25 June 2013

Kori Bustard
Gerus-Otjikoto 220 kV line
Otjiwarongo
20.09703S 16.75242E
Collision
Reported by Peter Cunningham
27 June 2013

Namaqua Sandgrouse (2 birds)
Gerus-Otjikoto 220 kV line
Otjiwarongo
19.98722S 16.88306E
Collision
Reported by Peter Cunningham
27 June 2013

Unknown bird
Gerus-Otjikoto 220 kV line
Otavi
19.41817S 17.42733E
VULNERABLE species in Namibia
and also GLOBALLY THREATENED
Reported by Peter Cunningham
15 July 2013

Turtle Dove (4 birds)
Gerus-Otjikoto 220 kV line
Otavi
19.31264S 17.54611E
Collision
Reported by Peter Cunningham
17 July 2013

Kori Bustard
Korridor 33 kV HLPCD line
Aminuis
23.56605S 19.73844E
Collision
Reported by Peter Cunningham
22 July 2013

Black-chested Snake-Eagle
Kokerboom-Auas 400 kV line
Rehoboth (east)
23.30566S 17.26648E
Collision, fresh
Reported by Dagga Zimmermann
18 July 2013

Kori Bustard
Korridor 33 kV HLPCD line
Aminuis
23.64019S 19.55650E
Collision
Reported by Peter Cunningham
22 July 2013

Kori Bustard
Korridor 33 kV HLPCD line
Aranos-Aminuis
23.99458S 19.16261E
Collision
Reported by AC van Zyl
21 August 2013

Kori Bustard
Korridor 33 kV HLPCD line
Aranos
23.99458S 19.16261E
Collision
Reported by AC van Zyl
21 August 2013
Greater Flamingo
Walmund-Walvis Bay 66 kV line
Walvis Bay
22.96416S 14.53102E
Collisions, very fresh
Both species VULNERABLE in Namibia, Lesser Flamingo also GLOBALLY THREATENED
Reported by Joh Henschel
28 July 2013

Greater Flamingo
Walmund-Walvis Bay 66 kV line
Walvis Bay
22.96396S 14.53148E
Collision, fresh
VULNERABLE species in Namibia
Reported by Ann & Mike Scott
15 August 2013

Lesser Flamingo
Namdeb U20 line (6.6 kV "X-mas tree")
Oranjemund
28.50142S 16.27942E
VULNERABLE species in Namibia and also GLOBALLY THREATENED
Reported by Jefta Ampueja

Greater Flamingo + Lesser Flamingo
Walmund-Walvis Bay 66 kV line
Walvis Bay
22.96416S 14.53102E
Collision, very fresh
Both species VULNERABLE in Namibia, Lesser Flamingo also GLOBALLY THREATENED
Reported by Joh Henschel
28 July 2013

Greater Flamingo
Walmund-Walvis Bay 66 kV line
Walvis Bay
22.96396S 14.53148E
Collision, fresh
VULNERABLE species in Namibia
Reported by Ann & Mike Scott
15 August 2013

Lesser Flamingo
Walmund-Walvis Bay 66 kV line
Walvis Bay
22.96396S 14.53148E
Collision, fresh
VULNERABLE species in Namibia
Reported by Karel Naibab
8 August 2013