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TRAINING WORKSHOPS

Management of wildlife interactions with power line networks

The NamPower/Namibia Nature Foundation (NNF) Strategic Partnership has launched a country-wide series of half-day workshops that will focus on promoting awareness and gathering information on power line/wildlife incidents in Namibia. The target audience includes NamPower and Regional Electricity Distribution (RED) staff, and landowners and managers that have power lines/structures on their properties (e.g. farmers, conservancies, the Ministry of Wildlife and Tourism and other institutions); but anyone else who is interested is also welcome to attend.

This year, workshops have been held at Brakwater, Tsumeb and Otjiwarongo (see below), while further workshops are planned at Windhoek (20 October), Walvis Bay (22 October) and Keetmanshoop (17 November). Additional workshops will be arranged next year as required.

Brakwater

An initial technical training workshop was held at Brakwater, near Windhoek on 30 June 2009. Participants included representatives from NamPower (Danie Louw, Gloudi de Beer, Francois Binneman, Petrus Immanuel, Ringo Joseph, Wicus Meyer); Cenored (Gawie Awaseb) and Nored (John Nambuhu, Salamon Mulilo, Israel Negumbo); and the MET – DSS (Holger Kolberg). Chris van Rooyen is thanked for presenting this workshop. The programme included an introduction to the NamPower/ NNF partnership; electrocutions of wildlife on electricity infrastructure; bird collisions with power lines; bird nesting on power lines; faulting caused by birds on transmission lines; procedures to address wildlife mortality on power lines; and planning for the future.



The first technical training workshop at Brakwater, 30/6/09
(photo Ann Scott)

Proposed actions arising from the workshop

- Investigate a survey of bird nests on power lines (especially raptors), possibly by air
- Implement the relocation of Sociable Weaver nests on an experimental basis, e.g. at Rehoboth
- Implement a research project on impacts of Buffalo Weavers on power lines
- Investigate Ludwig's Bustard/power line interactions in the South
- Investigate vulture mortalities reported on a power line at Mount Etjo



There is a growing concern about bustard collisions in the South; bustards – and Blue Cranes – have a large "blind spot" and do not always see a line in front of them: see report on page 4 (photo Gloudi de Beer)



Training workshop at Tsumeb, 23/9/09 (photo Ann Scott)



Training workshop at Otjiwarongo, 24/9/09 (photo Ann Scott)

Tsumeb & Otjiwarongo

Workshops catering for a broader audience have also been presented at Tsumeb (23 September 2009) and Otjiwarongo (24 September 2009) by Mike and Ann Scott. Participants at Tsumeb included representatives from NamPower (Willie Barkhuizen, Hendrik Espag, David Kayofa, Collin Klein, Matty Nehale, Johannes Shiimi, Meseg Tjaronda, Michael Tjikune); Cenored (J Frans, CW Haimene, F Kasete, E Mize, Immanuel Nghilongwa, A Victor) and the MET – P&W (Uahoo Isaskar). At Otjiwarongo the participants included Cenored (Flechsigg Udo, Samuel Gawiseb, Fritz Hanssen, Manfred Uvanga) and the MET – DSS (Wilferd Versfeld), with apologies from the Rare & Endangered Species Trust/REST (Maria Diekmann).

The programme for these two workshops included an introduction to the NamPower/NNF partnership; bird collisions and electrocutions (causes, results, prevention/ mitigation); birds involved in power line/wildlife interactions; birds nesting on power lines; incident reporting (importance, methods and what to do if you find an injured bird); how you can become involved (power line monitoring, incident reporting, area working groups); discussion and the way ahead (actions and establishment of local area working group). The workshops were followed by an inspection of part of the Gerus/Otjikoto 220 kV power line, from Platveld substation 10 km northwards (see below).

A detailed workshop report (including discussion points) is available on request and on our website.

Summary of actions

- Promote awareness about the project amongst the operations team for line inspections and meter reading; and amongst line clearing contractors
- Promote an interest in birds: identification of bird species, information, training; birds are not our enemies, but need protection
- Record all wildlife/power line incidents on the incident form (including birds, mammals, reptiles); complete power line survey forms; record incidents at substations
- Collate information from records of power trips/outages (including historical records)
- Obtain clarity on what to do with injured birds/carcasses of protected species

- Experiment with the relocation of problem nests on distribution systems, and monitor the results
- Experiment with owl nesting boxes to translocate owls nesting in substations (owls should at the same time be excluded from original nesting sites)
- It was agreed that completing an environmental checklist before constructing new RED power lines would be beneficial (e.g. in order to prevent problems from elephants and river damage, such as are being experienced at Palmwag):
 - Complete environmental checklists and obtain information for all new RED power lines:
 - Cooperate with the MET
- Investigate a research project on Buffalo Weavers to address the extensive outage problems caused by this species in the North during the rainy season
- Follow up on preventing further electrocutions of vultures at Mt Etjo
- Provide further training for NamPower and RED staff

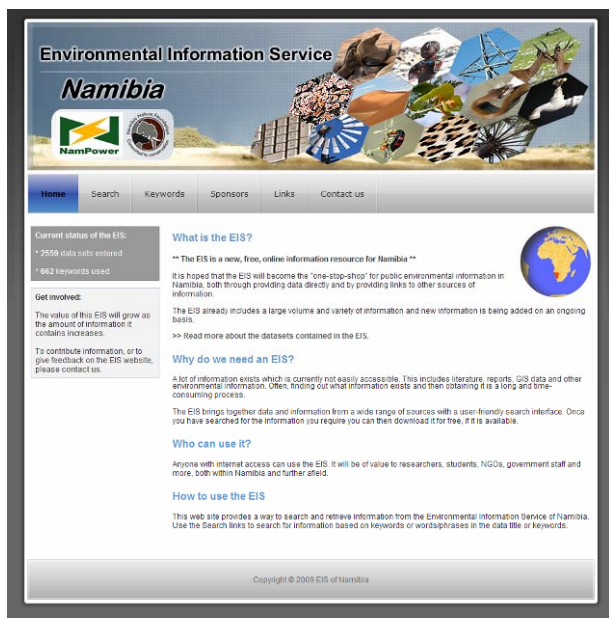
We wish to thank:

All our enthusiastic participants! And for assistance with organization and logistics: Danie Louw, Karl-Heinz Wagner, Gloudi de Beer, Collin Klein, Petrus Shovaleka (NamPower); and Gawie Awaseb, Fritz Hanssen, Ndinapeke Modino (Cenored); venues and refreshments: Minen Hotel (Tsumeb) and C'est si Bon Hotel (Otjiwarongo); training materials: Chris van Rooyen and Liz Komen (NARREC); roosting data for Cape Vulture on Gerus-Otjikoto power line: Dr John Mendelsohn (RAISON)/REST; NamPower and Cenored staff for their interest and willingness to facilitate the power line inspection, especially Collin Klein and Johannes Shiimi (NamPower) and Udo Flechsigg (Cenored) for accompanying us on the survey; the European Investment Bank for sponsoring the project.

GOOD PROGRESS WITH THE ENVIRONMENTAL INFORMATION SERVICE (EIS)

Alice Jarvis & Tony Robertson, email tr_aj@mweb.com.na
Website: www.nnf.org.na/EIS

One of the priority actions of the NamPower/NNF Strategic Partnership has been the development of a dynamic, integrated Environmental Information Service (EIS) that will serve as a free, accessible, useful 'one-stop-shop' for public environmental information in Namibia. The initial work has focussed on assessing and incorporating data such as the Atlas of Namibia, Bird Atlas, CONINFO and NamPower, and the creation of links to other established sources of data.



At the end of phase 1, the EIS consists of an online, searchable database structure to which 2560 data sets have already been uploaded. The database utilises a hierarchical keyword thesaurus system which allows 'smart' and efficient searching.

The different options available for searching for, and retrieving data include: (1) simple search by keyword; (2) hierarchical search by theme and then keyword; and (3) free text search. A preliminary spatial search option will be more fully developed in phase 2. The search can be further restricted by data type, file type and information type. The search results can be saved locally to a file. Data sets returned by the search can be freely downloaded, typically as zip files. In some cases, spatial data sets can also be viewed on an online map which utilises Google Earth's freely available plug-in.

It is proposed that phase 2 of the EIS project will begin later this year and will include a large component of populating the database; the quantity and range of data included will be substantially increased. The spatial aspects will be developed and all datasets will be assigned spatial attributes (as well as keywords). The search options will be expanded and enhanced, and the option to search by interactively selecting a spatial area of interest will be further developed. Phase 2 will also expand the type of information included so that, for example, information on institutions and web sites will be added to the database and keyworded; these will then be included in search results when relevant. Additional aspects will include the addition of an administrator interface, documentation of the system, search engine optimisation and further promotion of the site.

Anyone with internet access can use the EIS. It will be of value to researchers, students, NGOs, government staff, environmental impact consultants and more, both within Namibia and further afield. The value of this EIS will grow as the amount of information it contains increases. To contribute information, or to give feedback on the EIS website, please contact us!

RAPTOR/POWER LINE CONFLICTS

Liz Komen, NARREC, email liz@narrec.net

One of the aims of the NamPower/NNF project is to monitor and investigate accidents on power lines. NARREC (Namibia Animal rehabilitation Research and Education Centre) has received two power line victims recently (July 2009), both large birds of prey. A Black-chested Snake-Eagle was found on 22/7/09 near the Nina Rd, going south from Hosea Kutako Airport on the farm Skietweg. Electric burns can be most severe and the Black-chested Snake-Eagle was humanely euthanized.

However the Martial Eagle, Namibia's largest eagle species, with extensive burns to her left wing was lucky enough to be found by Mr Richard Peterson, a concerned member of the public, on 28/7/09. This bird arrived at NARREC with severe infection of the wound and a weight loss of about 30%, which reasonably could mean that she had been on the ground, wounded, for about a week. This area is crossed by a number of power lines and pylons. I believe this was a collision with high voltage wire as the line of burn into the flesh, though healed, is still visible. Just four weeks later and already at a weight of 4.8 kg, she is out of NARREC's intensive care facility and in a rehabilitation aviary as she is prepared for release.



This Highly Endangered Martial Eagle is being rehabilitated at NARREC after a collision with a high voltage power line (photo NARREC)

Martial Eagles are classed as a *Highly Endangered* species in Namibia. A three-fold decrease in the Martial Eagle population has been noted in just six years, and they are vulnerable to becoming “endangered status” throughout southern Africa. The threats to these eagles’ future survival are mostly from small livestock farmers who view them as a predation threat to lambs. However, although they obviously are able to prey on lambs, they are also a natural predator for jackal, fox, caracal, African wildcat and large reptiles such as cobras and seed-eating birds such as Guinea-fowl.

The above information is derived from a detailed media release that is available on request, and on our website.

BUSTARD/POWER LINE CONFLICTS IN THE SPOTLIGHT

Jessica Shaw, Percy FitzPatrick Institute of African Ornithology, DST/NRF Centre of Excellence, University of Cape Town, email jessica.shaw@uct.ac.za

Following growing concern for Ludwig’s Bustard, I have recently started a PhD at the FitzPatrick Institute, University of Cape Town to learn more about collision mortality in this species, and how we might mitigate it. Ludwig’s are particularly susceptible to power line collisions, and are listed as *Vulnerable* on the South African Red List because of this single source of mortality. Work by Dr Andrew Jenkins and the Eskom-Endangered Wildlife Trust Strategic Partnership estimates this mortality to be in the region of one Ludwig’s Bustard per kilometre per year of high voltage transmission line across the Karoo, which is probably unsustainably high and is likely to be having population level impacts.

Over the next few years, I am planning to conduct a new census of the population to see whether the population has decreased as we expect, continue to assess the magnitude of power line mortality through regular line surveys with the EWT, look at patterns of local and regional movement of bustards through radio and satellite tracking, and explore mitigation options.

I have recently been busy with a visit to South Africa by Professor Graham Martin, an expert in bird vision from the University of Birmingham. Working with captive Blue Cranes, White Storks and a Kori Bustard at Tygerberg and Johannesburg Zoos, we examined the field of vision in these species to see if there was any basic visual reason which would make them susceptible to power line collisions. While the data are still being processed, initial findings suggest that they vary quite a bit in what they can see. White Storks appear to have fairly good frontal vision, but Blue Cranes and the Kori Bustard have quite big blind spots. If these birds are flying without paying much attention to what lies ahead of them, focusing instead on looking for forage areas or other birds on the ground, they may not be able to see the power lines at all. This probably has implications for the type of marking devices that might be effective for these species, and we are continuing to work on this with Eskom.



Dead Ludwig’s Bustard, found in the South beneath the Namib-Kokerboom line near Keetmanshoop in August 2006
(photo Gloudi de Beer)

POWER LINE SURVEYS

Walvis Bay

John Pallett, email jpallett@mweb.com.na

Inspection details & findings:

On 11/7/09 I walked two short stretches of power lines on the coast. Immediately east of Walvis Bay, a double line running parallel to the main road from town towards Rooikop airport. Walked 2km, found one very old bird carcass (bleached bones + few feathers), cormorant-sized; unidentifiable. Plus one even older carcass, no bones, only few tufts of feathers; unidentifiable. Then at Swakopmund, the power line running into Tamariskia substation from due east. Walked 1.4km, no carcasses. So, not very much to report. I have pictures of what I found but they show very little, and GPS points.

Recommendations:

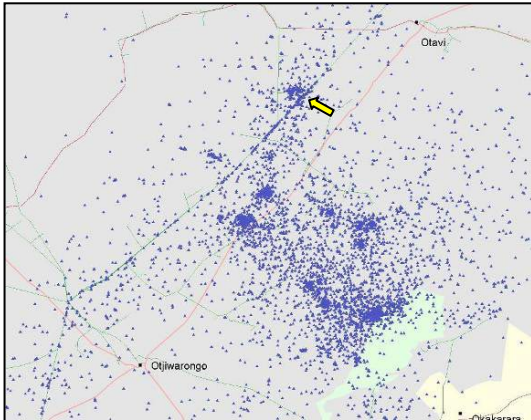
To consider for further work to assess bird mortalities:

- Do this in pairs so that you can “leapfrog” along a power line and not have to retrace your steps.
- I suspect jackals and wind will carry carcasses away very promptly. To reveal anything about frequency of mortalities, this exercise needs to be done at 1-week intervals so that there is still a chance of finding some remnants of carcasses.
- It’s not advisable to do this close to towns, like I did. A solitary walker with binoculars, GPS and camera is an easy mugging target. Didn’t happen to me but I was very aware that it could have. Besides, walking should be enjoyable, and it wasn’t for me with cars and people around.

I might get a chance to walk some stretches out in the central Namib in the next month or so. Will keep you informed, let me know if you have any priority areas.

Otjiwarongo/Otavi

Ann & Mike Scott, Collin Klein & Johannes Shiimi (NamPower); Udo Flechsig (Cenored)



The path of a 220 kV power line is clearly indicated in these GPS points for roosting sites by a satellite-tagged Cape Vulture (map: John Mendelsohn/REST)

Inspection details:

Date & time: 24/9/09, 14h45 – 16h05

Line: 220 kV Gerus/Otjikoto line; Platveld substation and northwards for approx. 10 km (see yellow arrow, above)

Area: 19 55 16.5S / 16 56 45.6E to 19 50 37.0S / 17 01 14.5 E (25 pylons, 400 m apart)

Motivation: This line has been used frequently as a roosting site by Cape Vulture (CV5) with satellite tag
Vegetation beneath line: Recently cleared by hand
Weather: Overcast, some thunder and rain

Findings:

Bird mortalities: No signs

Buffalo Weaver nests: 3 small nests (high) in first part

Sociable Weaver nests: 14, mostly large or colonies of 2-4 smaller nests on the same pylon; all low down at the "anti-climb device" level; one on every pylon for the last 10 pylons

Raptors (live): 1 Barn Owl flew out at a large Sociable Weaver nest and 1 Black-chested Snake Eagle on nearby HPLCD pole

Recommendations:

Monitoring: Regular monitoring, given the use of the power lines by Cape Vultures (Critically Endangered) and probably White-backed Vultures (Near Threatened)



NamPower and Cenored staff accompanied us on a survey of part of the 220 kV Gerus/Otjikoto power line on 24/9/09 (see map above; photo Ann Scott)

NEWS FROM OUR READERS



Pelican on a power line

Rod Braby, email rbraby@nacoma.org.na

22/2/09: This photograph was taken on the B2 at the turn-off to the Langer Heinrich Uranium Mine where the power line traverses the desert in the middle of the Namib section of the NNP (approx. 22 55S; 015 18E).

Chris van Rooyen (the project's specialist technical advisor) comments: I think it is a 66kV line. It should be completely safe, as the bird cannot make contact with the conductors.



Bustard chick collides with power line

Gloudi de Beer, email Gloudina.De.Beer@nampower.com.na

This bird collided with a stay wire on the Namib-Kokerboom line in August 2006. We were on site and saw the collision take place.

How well can bustards see overhead lines?

Ann & Mike Scott, email ecoserve@iway.na

On 1/7/09 at 17h00 we were travelling on the B2, 115 km from Swakopmund and 25 km east of railway bridge. We saw a Ludwig's Bustard take off and fly from NW to SE at sunset (with the sun behind it), at right angles to a single, thick telephone running next to the road. The bustard nearly collided with the line, which was clearly visible. Did it just not see the line?

Successful relocation of Sociable Weaver nests - power-ful news from Aranos

AC van Zyl, email AC.Van.Zyl@nampower.com.na



Dummy pole on Farm Eldorado (pump) on Kalkpan reticulation line, 153km from Aranos (see dummy on left, and smaller nest on the cross-arm structure)

29/9/09: I am A.C. van Zyl from Aranos, working for NamPower and have my own farm in this area. I am sending you some photos of this area.

On farm Eldorado - Kalkpan the line splits into two and here we have trouble (see above photograph). As an example of the successes with relocating Sociable Weaver nests, the nest in the far background was the first pole the birds still built on our structure. The 2nd nest is on a dummy pole, which made them move off the power structure. The colony was very big.



Basket (made out of old conductor wire) on Kalkpan HLPCD (horizontal line post compact delta) reticulation line, Farm Dai Gratia.

I had a problem with the intermediate pole structure (see photo above). The Sociable Weavers build on 1-6 poles, depending how large the colony is. I don't have 6 dummy poles to plant, or they just won't take the dummy. So I tried to relocate them on the structure, but at a safe distance and out of my way. It worked very well.



Dummy and sleeve (above). This is an example on the Kalkpan reticulation line at Farm Chiccos, where I used a dummy pole (see just the start of the nest on the left). I also put plastic sleeve over the jumpers to make the time longer for visits/cleaning, and reduce flashes and burning. I also use "elbroc" type silicon insulators – the birds don't like them (they prefer the glass disc ones, like big windows).

Dummy poles in my area have been highly successful and I am very proud of bringing my outages from 11 per week to 2 per week in the rainy season. The area we have to clean, we had to drive 486km per day and previously we cleaned this line (Kalkpan) twice a week. Now we clean it only once a month.

You need to put something on the pole to help with fixing the nest. It must be rigid, they don't like loose or unstable structures. To plant a dummy, you must consider where the water and feeding grounds are, and the wind/weather directions. My experience is that in the Kalahari the most bird nests are situated on the south to south-east side of the tree/structure.

Pale-winged Starlings nest on transformer

John Frans, email jfranz@cenored.com.na

See photographs (below) of birds at farm Eisenberg No. 509, 13 km east of Otavi area on 14/9/09. They were trying to nest on top of a transformer and caused this damage.

