NamPower/Namibia Nature Foundation Strategic Partnership

Newsletter No. 14: November 2014

IN THIS ISSUE

EDITORIAL: STEADY PROGRESS WITH ADDRESSING PROBLEMS CAUSED BY POWER LINES TO WILDLIFE – AND BY WILDLIFE TO THE ELECTRICITY SUPPLY

After providing the invaluable start-up funding for the NamPower/NNF Strategic Partnership over the past five years, the European Investment Bank (EIB) has once again generously provided top-up funding of some N$2,600.000 for the continuation of our activities. Our sincere appreciation to the EIB for this ongoing support!

Much has been happening in the way of workshops and publicity. One of the highlights was a cross-border workshop to strengthen collaboration with our sister-organisation, the Eskom/EWT Strategic Partnership, and we look forward to working together more closely in the future. The Partnership also received publicity on several other platforms. Two training workshops in power line survey methods were provided. Considerable progress is being made with our focal projects on bustards, flamingos and weaver nesting as we seek solutions to the problems caused by power lines to wildlife – and *vice versa*.

Since June 2014, Swakop Uranium has become an active partner in the regular monitoring of power lines associated with the new Husab Mine (*photo Ann Scott*).

This year much of the focus of activity for the Partnership has been on undertaking power line surveys. From April to November 2014, 26 surveys have been completed, covering 427 km and recording 73 incidents (mainly collisions). Much of the survey work has been done on foot, which increases the reliability of the findings. Many thanks to all our enthusiastic participants and other supporters (including various mines on the coast) for their ongoing commitment and assistance with this invaluable work!

Our Environmental Information Service (EIS) now boasts 10,070 data sets. Congratulations to our EIS team on achieving this milestone! A special word of thanks to Sonja Schubert who has steadily been adding to this database over the years.

We have several camera ("stealth") traps on order, which, together with Bird Strike Indicators (BSIs), will be used for experimental work during the coming year to investigate bird flight patterns and strikes.

In order to promote uniformity in recommendations for Environmental Impact Assessments (EIAs), the Partnership is drawing up standardised guidelines for the marking of different power line structures.

With all the above survey data being collected, the question arises: what next? NamPower is busy planning a marking programme for one of the main collision "hotspots" identified to date, the 10.4 km Trekkopje Bypass on the Khan-Trekkopje line. The mitigation devices are being purchased and will be fitted at the earliest opportunity. The 4 km section running eastwards of the

The NamPower/Namibia Nature Foundation Strategic Partnership is funded by the European Investment Bank
Project management & newsletter: Mike & Ann Scott
Cell 081 284 5130, Tel. 064 404866, Email ecoserve@iway.na
Websites: http://www.nnf.org.na/project/nampowernnf-partnership/13/5/5; html http://www.nampower.com.na/Page.aspx?p=190

Wlotzkasbaken Desalination Plant will be fitted at the same time. The experimental mitigation design will include both marked and unmarked sections, for comparison. NamPower is also mitigating new power lines on an ongoing basis, as part of the standard EIA process, e.g. marking devices have been fitted on the new Lithops-Walmund line from the Swakop River for 10 km south-wards (see page 13 for photographs of devices); and the new Walvis-Kuiseb line is being marked in the sewage ponds area. The mitigation of the Ruacana–Oshikoto line amounts to approx. N$50mil; this includes shifting the line from the initial route to a more northerly route. This high investment in mitigation appropriately demonstrates NamPower's commitment to addressing these problems.

WORKSHOPS AND PUBLICITY

Cross-border collaborative workshop with Eskom/EWT Strategic Partnership, June 2014

Participants at the cross-border collaborative workshop with the Eskom/EWT Strategic Partnership in Windhoek, June 2014 (*photo Mehorere Mupe*)

Cross-border collaboration was the theme of a milestone workshop in Windhoek on 4 June 2014. It was attended by 19 participants from NamPower (Transmission/NetOps, SHEW and PDS); the Eskom/EWT Strategic Partnership; the NamPower/NNF Strategic Partnership; and Preformed Line Products, who manufacture mitigation devices. Much was done towards achieving the objectives of this open, interactive meeting, which were to:

- Provide a brief overview of the activities of the NamPower/NNF Strategic Partnership
- Provide a brief overview of the activities of the Eskom/EWT Strategic Partnership
- Conduct a short Eskom/EWT Strategic Partnership training session on power lines and wildlife; this was an update to previous training provided by Chris van Rooyen
- Discussion: share ideas on mutual issues concerning power lines and wildlife
- Explore possibilities for future collaboration, including the SA Power Pool and an inter-African power line working group

Special thanks to all the participants, and especially to Constant Hoogstad, the Manager of the EWT Wildlife and Energy Programme for travelling to the workshop from Gauteng, and for all his support and cooperation in our mutual initiatives.

EAPAN mini-conference, October 2014

Karl-Heinz Wagner of NamPower made a presentation on power lines and Environmental Impact Assessments at the Environmental Assessment Practitioners' Association EAPAN) mini-conference on 10 October 2014.

Mike Scott provided an update on the NamPower/NNF Strategic Partnership.

Karl-Heinz Wagner of NamPower discussing power line design at the EAPAN mini-conference in October 2014 (*photo EAPAN*)

NEWS talk on bustard project, July 2014

John Pallett presented a talk at the Namibian Environment & Wildlife Society (NEWS) entitled, "Big birds, Big power lines, Big problems" in Windhoek on 15 July 2014.

John Pallett during his presentation on "Big birds, Big power lines, Big problems" at NEWS, July 2014 (*photo Elfi Schneider*)

EWT Birds of Prey Programme – 10th Annual Conference, May 2014

The Endangered Wildlife Trust's Birds of Prey Programme (EWT-BoPP) held its 10th Annual Conference (2014) in the Etosha area on 19-23 May 2014. Ann Scott presented an update on the NamPower/NNF Strategic Partnership, with special emphasis on raptors and power lines in Namibia (*photo above by EWT*).

TRAINING IN POWER LINE SURVEYS

Rössing Uranium Limited, August 2014

A training workshop on power line surveys was presented to six environmental staff of Rössing Uranium Limited (RUL) on 20 August 2014.

Walvis Bay, September 2014

A training workshop at Walvis Bay on 26 September 2014 included nine participants from NACOMA, Walvis Bay Municipality, the Ministry of Environment & Tourism and the Bird Paradise tourism centre.

PROJECT-RELATED REPORTS

Progress in the bustards – power lines project

John Pallett (email john.pallett@saiea.com)

A full year of monitoring power lines in southern Namibia was completed in October 2013. The results confirmed the very high mortality rates of bustards on large power lines, such as 220 and 400 kV lines, similar to the rate calculated by Jessica Shaw in the Karoo. Mortality rates were lower on smaller lines, possibly reflecting the lower height of the conductors, and/or the shorter vertical distance between upper and lower wires. Natural occurrence of Ludwig's Bustards gradually dropped in the study area of the smallest power line I was monitoring (the 66 kV between Lüderitz and Rosh Pinah), so very few mortalities were recorded on this line towards the end of the year. Such fluctuations in the mortality rate reflect the nomadic nature of Ludwig's Bustards, where there was a high mortality on the 66 kV line in 2012, yet almost zero mortality in the subsequent year due to the absence of the birds.

Seventy-five percent of all collisions were bustards, with Ludwig's Bustard clearly standing out as the main species involved. Yet many other birds are also affected, including some highly threatened species such as Secretarybird, Martial Eagle, Lappet-faced Vulture, and both Lesser and Greater Flamingo.

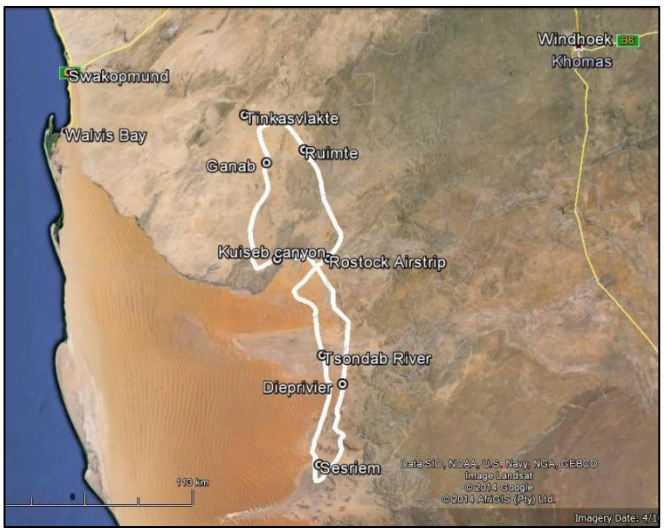
At the end of 2013 the focus of the work shifted to resolving the main question of Ludwig's Bustard abundance. But estimating the total population of this species was hindered by the problems inherent in conducting a census of a thinly distributed, very shy and nomadic bird that inhabits wide expanses of desert terrain, spread over three countries – South Africa, Namibia and Angola. Aerial surveys were carried out over part of the Karoo and in central and southern Namibia (see separate report below), but a trip that revealed far fewer birds than we knew were on the ground makes me question the reliability of doing a census by air. It has been decided to resort to vehicle surveys that are much more time consuming but at least provide quantifiable data with reasonable certainty.

Bustard census flight in the central Namib

John Pallett

A flight over the central Namib plains from Rostock was organised for 25 May 2014, through a generous offer of Peter Keil of Westair. This was part of a "fly-in" weekend set up by Kücki Kuhhirt, at Rostock Ritz. The purpose of the flight was to count Ludwig's Bustards in the central Namib, as a contribution to estimating the total population of this species in Namibia and South Africa. Peter Keil was the pilot of the Cessna C170, with John Pallett and Peter Bridgeford observing and counting. We flew at a speed of about 140-150 km/h, mostly at about 200 ft above ground level. Excellent conditions for spotting birds, over superb landscapes!

L to R: Peter Keil (pilot), Peter Bridgeford and John Pallett at Röstock air strip.



Route of the central Namib bustard census flight, 25 May 2014

Most of the flight was over open grassy plains and in some parts over low dunes. Unavoidably, some sections went over rocky and hilly terrain, and we had a short mid-flight stop; these were excluded from the distance and duration of the census shown in the table below. We flew 473 km altogether on the route shown below, in just under 3.5 hours. Habitat conditions were considered to be reasonable for Ludwig's Bustards, with grassy cover over most of the plains and dunes except in some patches that had clearly not received rain in the past season. Other patches had a green tinge of recent growth. Wildlife was plentiful, with high numbers of springbok, gemsbok and Hartmann's mountain zebra, and red hartebeest on the farm Ruimte in the north-east.

The results from the flight are given in the table on the right. The detailed data, showing waypoints and individual recordings of birds, can be provided for anyone interested. We also recorded and took GPS points for nests of Lappet-faced Vultures, which are not shown here.

The bustard tally was roughly as expected: not a high number, but with birds scattered thinly over the terrain. The second leg, from the Kuiseb northwards to Tinkas and then southwards on the eastern side, had no bustards. This area was generally drier than the southern section of the route.

Table 1. Results of the bustard census flight, 25 May 2014.

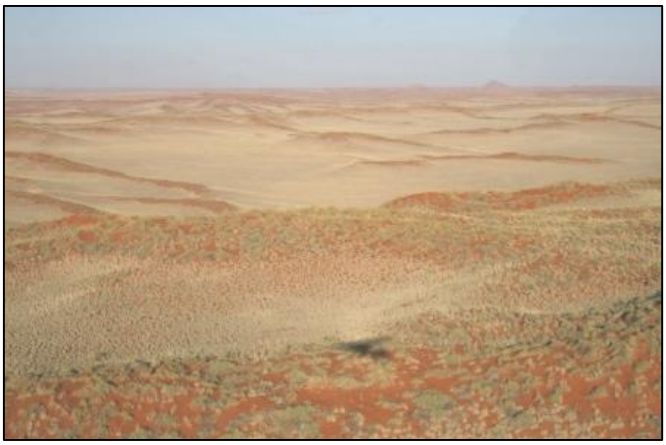
Date and time	Distance	Main landmarks and areas	Birds counted
25 May 07:05 – 10:30 3hr 15mins in the air	Total = 473 km Census distance = 407 km	Rostock, Tsondab River, Sesriem, Dieprivier, Kuiseb Canyon, Ganab, Tinkas Flats, Ruimte, Rostock	13 Ludwig's Bustard 38 Rüppell's Korhaan 1 Northern Black Korhaan 8 Lappet-faced Vulture 1 Verreauxs' Eagle 1 Booted Eagle

The data will allow us to calculate a rough density estimate of bustards per unit area along the path followed, which will then be combined with data from other flights and extrapolated over all the bustard's range. Altogether this will help to arrive at a very rough estimate of the total population, which is crucial to help understand the impact of power line collisions on this bird.

The total cost of the flight was NS2050, for fuel. This was covered by the Abax Foundation's support to the Bustard Project at Percy FitzPatrick Institute of African Ornithology, UCT. The NamPower/NNF Strategic Partnership covered the vehicle cost from Windhoek to Rostock Ritz. My sincere thanks to Peter Keil for so generously providing the plane and giving up his Sunday morning for the work, to Kücki Kuhhirt for hosting us at the fly-in, and to Peter Bridgeford for willingly joining the arrangements at very short notice.

This research was carried out under the MET Research Permit 1856/2013 to John Pallett for the project: Collisions of large birds, especially bustards, against power lines in Namibia: significance and solutions. Permission for low-level flying over the Namib Naukluft Park was granted by the Director: Parks and Wildlife Management, Mr Colgar Sikopo.

Green flush in a few washes north of the Kuiseb River (*photo John Pallett*)



Vegetated plains, dunes and inter-dunes on the eastern edge of the dune sea (*photos John Pallett*)

Camel-thorn trees in ephemeral streams on the plains north-east of Sesriem (left); and Peter Bridgeford in observer mode (right; *photos John Pallett*)

Stable isotopes reveal regional movement patterns in an endangered bustard

Jessica Shaw & Peter Ryan (email shawmjessica@gmail.com)

Abstract of paper accepted for publication in Austral Ecology (2014)

Stable isotope analysis is a valuable technique to infer animal movement between isotopically distinct landscapes. For birds in terrestrial systems, it is usually only applied at continental scales, often relying on global isotopic patterns. In contrast, we used this technique to investigate movement patterns of Ludwig's Bustard (*Neotis ludwigii*) at a regional scale, where such information is needed to improve the conservation status of this species. We analysed carbon and nitrogen isotopic compositions of feathers from bustards across two biomes of the semi-arid rangelands of the Karoo, South Africa, to investigate movement and explore sex and age movement strategy differences. We used a linear discriminant function analysis based on growing feathers to classify fully grown feathers to a Succulent or Nama Karoo biome origin. Six of 12 birds for which all primary feathers were analysed had at least one feather classified as having grown in the Succulent Karoo, supporting the theory that these birds are partial migrants. Feathers from two satellite-tracked bustards broadly supported the conclusions of the analysis, although food base differences resulting from local rainfall variation probably obscured geographic signals at finer scales. There was no apparent difference in movement strategies between the sexes, but juvenile feathers were almost exclusively assigned to the Nama Karoo, suggesting that most breeding occurs in this biome. Adult and juvenile feathers also had significantly different isotope ratios, which could relate to diet or to differing metabolic processes. This study demonstrates that with a good understanding of the system, carbon and nitrogen stable isotopes can be useful to infer general movement patterns of birds at a regional level.

Flamingo and power lines project

Previous newsletters report on the capture of two Greater Flamingos and one Lesser Flamingo that were successfully fitted with GPS satellite tracking devices (platform terminal transmitters or PTTs) at Mile 4 Saltworks, Swakopmund in January 2013, and the progress made with tracking local movements of these birds for six months.

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 during the summer of 2012/2013. This trend has continued during the past summer (2013/2014), with the birds still not showing signs of migrating inland during these dry conditions.

L to R: Mike & Ann Scott and Dr Sandra Dantu with the latest Greater Flamingo fitted with a GPS tracking unit (*photo Mark Boorman*)

The battery-powered PTT that was recovered when a Greater Flamingo died near Walvis Bay in August (see newsletter no. 12, p 3) was refurbished, with funding provided by the Go Green Fund. It was then fitted to another Greater Flamingo captured at Mile 4 Saltworks on 1 March 2014 (and ringed NJG). After a short time the bird moved down to Walvis Bay Saltworks, then moved briefly back to Mile 4 on 5-12 June, and up to Cape Cross Lagoon by 19 June. Sadly, the data showed that the bird stopped moving around 10 September. Thanks to the Google maps provided by Dr John Mendelsohn, and to the interest and assistance of Wilfried Groenewald and his staff at Cape Cross Saltworks, we were able to go to the exact locality of the carcass and retrieve the satellite tracker on 6 October 2014. There was no indication as to why the bird had died, and the tracker was still correctly in place.

On 16 November 2014 we were able to capture another Greater Flamingo at Mile 4 Saltworks and fit the tracker, ringing the bird NFL. We hope to obtain data at least on local movements until the birds move inland.

We would like to thank all our funders and our very efficient capture team, Mark Boorman and his wife Dr Sandra Dantu; the Klein family for providing access to Mike 4 Saltworks and the Groenewald family to Cape Cross Saltworks; and Dr John Mendelsohn for his ongoing management of the data.

Weaver nesting project

Julia Amukwa (email j.n.amukwa@gmail.com)

Introduction

A pilot study was completed from January to February this year that observed the behaviour of the nesting Sociable Weavers in the Mariental district where the main study is to take place (Figure 1). The pilot study needed to determine to what extent the birds are territorial to their nesting sites. This is important because although it is known from literature and field experience that the common nesting birds show strong between-year nesting site

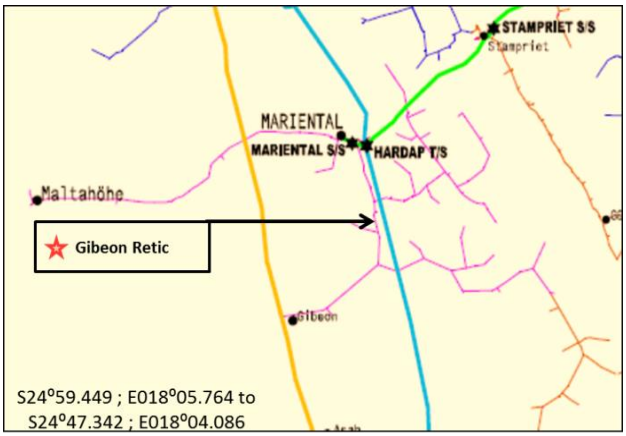


Fig. 1. The study area south of Mariental.

fidelity, it is obligatory for this particular study to verify the fact at site. The pilot study also helped determine the methodology of the main research, including the experimental design, materials (equipment and supplies required), analyses and sequence of events/activities planned.

Methodology

Experimental design and data collection

A 15 km stretch of the Gibeon Reticulation in Mariental was used for the pilot study (see Figure 1). During previous visits to the area a dozen nests were observed on this power line (see Figure 2 and 3 below). The study began with collecting data on the presence/absence of nests on each pole within the study section of the power line. Where a nest is found, its size and responsible species are noted as well. Nests are then removed every week for the rest of the study duration (see Figure 4 below) and continuous nest presence/ absence data are recorded for each pole to detect whether the birds return to nest and most importantly if they nest at their exact spot. This will give an idea of the species' territoriality.

Data analysis

There are four possible outcomes at each pole:

1. No-Nest to No-Nest (0-0): Implies no nesting activity;
2. No-Nest to Nest (0-1): Implies new nest construction;
3. Nest to Nest (1-1): Implies nest ***re-***construction; and
4. Nest to No-Nest (1-0): Implies no nest ***re-***construction.

The results are recorded below, with the total number of poles for each outcome every week, to show which outcome has the highest percentage (Table 1).

Results and discussion

Table 1: Tally of poles for each outcome.

Observation Weeks	Outcomes				Total*
	0 - 0	***0 - 1***	***1 - 1***	***1 - 0***	
Week 1	164	1^{+}	10^{+}	0	175
Week 2	163	1	11	0	175
Week 3	163	0	12	0	175
Week 4	163	0	12	0	175
Week 5	163	0	12	0	175
Total	816	2	57	0	875
% of Total	**93.3%**	**0.2%**	**6.5%**	**0%**	**100%**

* The above Total is the number of poles in the study section of the power line and therefore it remains the same every week. All nests recorded in this study belong to the Sociable Weaver.

+ The study initially began with 11 nests but Week 1 shows it to be only 10 and this is because one nest was removed by the line crew the night before the study began.

Figure 2 (left). Burnt pole with two birds actively nesting
Figure 3 (right). Multiple nests of one pole.

Figure 4: Weekly nest removal. Pole number 149 is shown. (*photos Julia Amukwa*).

The conducted pilot study's 15 km power line section was a total of 175 power line poles. All nests found on the line belong to Sociable Weavers. Outcome *0 – 0* (which implies no nesting activities at the poles) is the highest outcome in the study, as shown in Table 1 above. This is because only twelve of the total poles supported Sociable Weaver colonies, with most of the poles supporting more than one nest. The bird species' territoriality question will therefore be answered by looking at the highest of the other three outcomes, which Table 1 shows it to be Outcome *1 – 1* (implying nest reconstruction). None of the poles experienced Outcome *1 – 1*, which suggests that "no nest reconstruction" outcome is null and void.

Therefore technically there is only one completely new nest built which was during Week 2. Nonetheless, Outcome *0 – 1* (which implies new nest construction - nests at poles that were un-nested at the beginning of the study) counts two new nests, taking it up to 0.2% of the results.

If the focus is placed on the relevant outcomes (ignoring Outcome *0 – 0* in the analysis), Outcome *1 – 1* will make up 96.6% of the results (57 / 59 * 100%), with Outcome *0 – 1* will be 3.4% and Outcome *1 – 0* will still contribute nothing. **This means the birds reconstructed their nests with the significance of 96.6%, even after continuous nest removal twice a week**.

All the nests explored in the study were Sociable Weaver nests. This does not necessarily suggest that only Sociable Weavers are involved in power line nesting since the study samples only a 15 km stretch of a specific power line. However, the results suggest high nest fidelity for the nesting bird, which translates into high territoriality of Sociable Weaver to their nesting sites.

Conclusion

The results of the pilot study indicated that Sociable Weavers have high nest site fidelity of 96.6%: colonies repeatedly rebuilt their nests on the same pole even after continuous removal of their nests twice a week for five weeks. Only on one pole was a new nest built during the course of the pilot study, which could possibly mean that an existing colony split or that a new colony moved into the region. Neither of the two possibilities is unexpected since the study took place during the species' breeding period (September to May) and the birds are therefore expected to construct more nests than at other times.

Postscript

The main study started in August 2014 and is currently in progress. Following confirmation of the Sociable Weaver's high nest site fidelity, the main study will test the effectivity of the mitigation measure (alternative nesting poles) whereby *in situ* implementation approach of the mitigation method will be applied. In this case *in situ* means within the birds' feeding range of 1.5 km from their nesting site (Amukwa 2012). The independent poles will have to be planted within the servitude of the power line, which is 11m on each side of the NamPower power lines. The planting distance should also be far enough for electromagnetism to be substantially reduced, but still close to the original nesting site that the colony can remain in approximately the same site, since Sociable Weavers are territorial to their nesting sites.

The main study will also include a look at past Monthly Power Outage reports from NamPower between 1998 and 2013. An overview of bird-caused outages is useful in identifying key areas of vulnerability, assessing the frequency and magnitude of the outages, and helping guiding efforts to reduce outages.

POWER LINE SURVEYS: APRIL – NOVEMBER 2014

This year much of the focus of activity for the NamPower/NNF Strategic Partnership has been on undertaking power line surveys, in order to gather more information on power line incidents (mainly collisions). During the initial surveys, all carcass remains are collected (under MET research permit), to avoid double-counting in the future. Obviously repeat surveys are extremely valuable in attaching a time frame to the frequency of incidents, and we are pleased to report that a number of surveys are now being done on this regular basis.

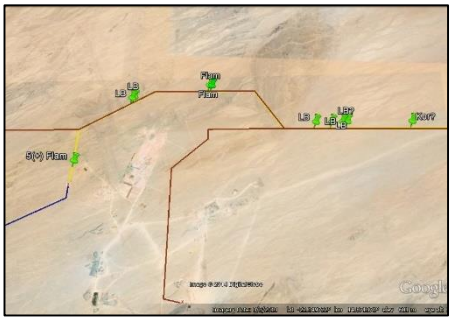
From April to November 2014, 26 surveys have been completed, covering 427 km and recording 73 incidents (mainly collisions). This provides a rough estimate of 0.2 incidents per km – although a large part of the data is for incidents accumulated over time. Much of the survey work has been done on foot, which increases the accuracy of the findings. Many thanks to all our enthusiastic participants and other supporters for their ongoing commitment and assistance with this invaluable work!

Date	Line	Km	kV & marking	Participants	Results		Tot.
Apr 2013 - 8/5/14	Trekkopje-Wlotzka (2x week)	44	Double H-pole 66 kV + earth from Trekkopje S/S to Wlotzka	Sandra Muller & Kaarina Nkandi (AREVA)	0		0
19/6/14	Lithops-Walmund: Swakop River to Walmund	15	220 kV (double circuit) wishbone 22 kV; marked with double loop BFDs & Ribe flappers at river crossing and for 10 km southwards	Bernhardt Doeseb & Lazarus Kandukwa (NamPower), Mike & Ann Scott (Partnership)	1	Kurrichane Button-quail	1



Lithops-Walmund 19/6/14

23/6/14	Trekkopje-Wlotzka	67	Double line to Bypass: guyed steel tower (220 kV) + Kamerad (66 kV; no earth; N side); steel self-support-ing tower + earth to Trek-kopje S/S; double H-pole 66 kV + earth to Wlotzka	Ann & Mike Scott (Partnership) (S Müller (Areva) checked reservoir area in vicinity of flamingo collisions on 27/6/14)	7 6 1	Flamingo LB Korhaan	14



Trekkopje-Wlotzka 23/6/14

25/6/14	Husab-Lithops (standard) 22 35.003S 15 01.304E to 22 31.892S 14 55.316E	19	Steel monopole double circuit 132 kV? + steel pylon 220 kV	Calvin Sisamu, Carlene Binneman, Immanuel Kalomho (Swakop Uranium); Ann & Mike Scott (Partnership)	1 2	LB R Korhaan	3

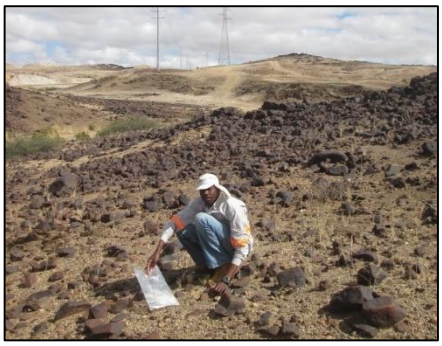


Husab-Lithops 25/6/14

Date	Line	Km	kV & marking	Participants	Results		Tot.
27/6/14	Trekkopje-Wlotzka (eastwards from Wlotzka Desalination Plant)	4.2	Double H-pole 66 kV + earth	Ann & Mike Scott (Partnership)	1	Flamingo	1


Trekkopje-Wlotzka (Desalination Plant eastwards) 27/6/14

25/7/14	Husab-Lithops (standard) 22 35.002S 15 01.186E to 22 31.821S 14 55.463E	19	Steel monopole double circuit 132 kV? + steel pylon 220 kV	Calvin Sisamu, Claudia Vahekeni, Immanuel Kalomho, Abraham Amuthenu, Ignatius Katupao, Andrea Roxin (Swakop Uranium)	2	LB	2


Husab-Lithops 25/7/14

30/7/14	Rössing Uranium Limited CMC eastwards	0.4	X-mas tree (low voltage)	Mike & Ann Scott (Partnership)	0	0
30/7/14	Rössing Uranium Limited Arandis airfield		A-frame 22 kV	Mike & Ann Scott (Partnership)	0	0



Rössing Uranium: X-mas tree structure (left) and A-frame (centre; 30/7/14); wishbone structure (20/8/14)

Date	Line	Km	kV & marking	Participants	Results		Tot.
20/8/14	Rössing Uranium Limited Line N of plant to Arandis	5.5	Wishbone low voltage	Steven Williams (Rössing Uranium Limited) Ann & Mike Scott (Partnership)	0		0
20/8/14	Rössing Uranium Limited NE of CMC	5.1	220 kV steel pylons	Ann & Mike Scott (Partnership)	2	LB	2

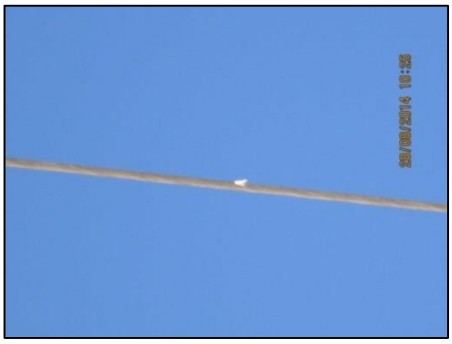

Rössing Uranium 20/8/14

22/8/14	Husab-Lithops (mine site)	20	132 kV (steel) + 33 kV (wooden)	Calvin Sisamu, Claudia Vahekeni, Immanuel Kalomho, Ignatius Katupao, Andrea Roxin, Ilka Schroer (Swakop Uranium)	2 4	LB Unknown	6

Husab-Lithops 22/8/14

Date	Line	Km	kV & marking	Participants		Results	Tot.
28/8/14	Husab (mine site) 22 34.995S 15 01.366E to 22 32.716S 15 03.560E	13.7	132 kV (steel) + 33 kV (wooden)	Calvin Sisamu, Carlene Binneman, Immanuel Kalomho, Ignatius Katupao (Swakop Uranium)	1	LB	1





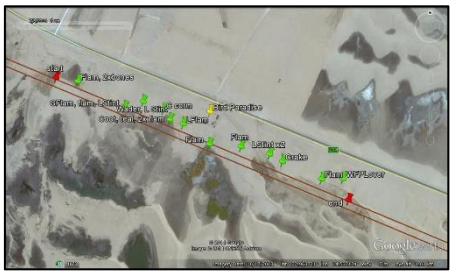
Husab Mine 28/8/14

26/9/14	Husab-Lithops (standard) 22 34 59.9S 15 01 18.6E to 22 31 46.3S 14 55 29.0E	19	Steel monopole double circuit 132 kV + steel pylon 220 kV	Calvin Sisamu, Ilka Schroer, Percival Hoebeb, Abraham Amutheni Claudia Vahekeni (Swakop Uranium)	1	Unknown	1
26/9/14	Husab (mine site) 22 35.007S 15 01.325E to 22 35.551S 15 01.265E		132 kV (steel) + 33 kV (wooden)	Andrea Roxin, Carlene Binneman, Immanuel Kalomho (Swakop Uranium)	1 - 4	LB	1



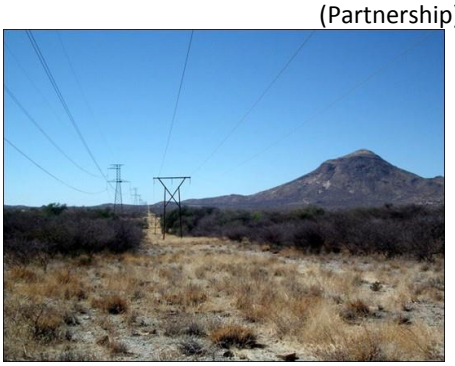
Husab-Lithops (standard) 26/9/14 (left); Husab Mine 26/9/14 (centre & right)

26/9/14	Walvis Bay-Kuiseb	0.9	Double 66 kV Kamerad (double steel monopole under construction; line with be marked as mitigation)	Ann & Mike Scott (Partnership), M Shinavene & S Nakale (Bird Paradise), A Alexander, K Kantika, J Shihepo, M Mhanda & C Shemuvalula (NACOMA), S Kaloma (WB Municipality)	10 5 2 2 1 1	Flamingo Little Stint/ WFP Duck/teal/ coot Wader/ crake Cormorant Unknown	21



Walvis Bay-Kuiseb 26/9/14

Date	Line	Km	kV & marking	Participants	Results		Tot.
2/10/14	Uis-Otjompaue	49	66 kV Kamerad	Rukira Isai & Nampolo Petrus (NamPower), Mike & Ann Scott (Partnership)	1	LB	1
3/10/14	Otjompaue-Repeater South Station	8	66 kV Kamerad & 330 kV steel tower	Elkan Mangandu (Nam-Power) & Lazarus Hafino; Mike & Ann Scott (Partnership)	0		0
3/10/14	Omburu-Gerus	6.7	220 kV steel tower	Elkan Mangandu (Nam-Power) & Lazarus Hafino; Mike & Ann Scott (Partnership)	0		0



Uis-Otjompaue 2/10/14 (left); Otjompaue-Repeater South Station 2 & 3/10/14 (centre); Omburu-Gerus 3/10/14 (right)

24/10/14	Husab-Lithops (standard) 22 58 33.1S 15 02 17.5E to 22 31 92.8S 14 55 23.3E	19	Steel monopole double circuit 132 kV? + steel pylon 220 kV	Swakop Uranium, Ann & Mike Scott (Partnership)	0		0
28/10/14	Husab (mine site) 22 34 59.4S 15 01 20.4E to 22 32 41.5S 15 03 34.1E	18	132 kV (steel) + 33 kV (wooden)	Swakop Uranium	0		0

Husab-Lithops 24/10/14 (left); Martial Eagle at Husab Mine (right).

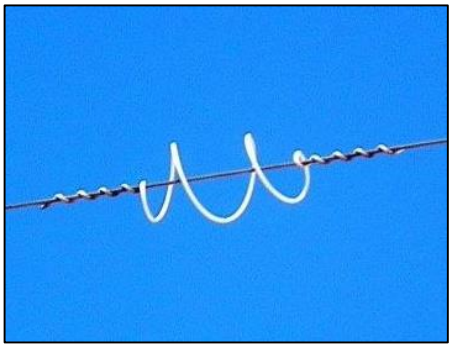
Date	Line	Km	kV & marking	Participants	Results	Tot.
31/10/14	Walvis Bay-Kuiseb	2.5	Double 66 kV Kamerad (double steel monopole under construction; line will be marked as mitigation)	Ann & Mike Scott (Partnership)	5 Flamingo 4 Little Stint/WFP 1 Duck/teal/ coot 1 Sparrow	11



Walvis Bay-Kuiseb 31/10/14

12/11/14	Lithops-Walmund Swakop River to Walmund 22.63157S 14.72558E to 22.76732S 14.73973E	15	220 kV steel monopole with guys, double circuit; 22 kV wishbone; new line has been marked at river crossing and for 10 km southwards, as mitigation (see photographs below)	MAS	0	0





Lithops-Walmund: Swakop River to Walmund, showing two types of mitigation devices fitted onto the new line 12/11/14

19/11/14	Ganab 23.07480S 15.60873E to 23.08433S 15.48330E	22.7	220 kV steel pylon	Mike & Ann Scott (Partnership)	0	0


Kuiseb-Van Eck: Ganab area 19/11/14; tagged Lapped-faced Vulture L258 seen at Hotsas (ringed as chick in same area, 2011)

Date	Line	Km	kV & marking	Participants	Results		Tot.
24/11/14	Oshikoto-NCS/ Copper	12	132 kV steel monopole (in parallel with 132 kV steel pylon and 22 kV HLPCD)	Karl-Heinz Wagner & Jürgen Senke (NamPower)	1 1	Turtle Dove Unknown	2
24/11/14	Oshikoto-Rundu	7.9	132 steel pylon (in parallel with 132 kV steel monopole and 22 kV HLPCD)	Mike & Ann Scott (Partnership)	0		0



Oshikoto-Rundu (left) and Oshikoto-NCS/Copper (centre & right) 24/11/14

POWER LINE INCIDENTS

2x Greater Flamingo

Farm Finkenstein, Windhoek district

Found midway between two towers, suspected collision

VULNERABLE species in Namibia

Reported by Erika Theron & Gudrun Middendorff

30 October 2012


Great White Pelican (juvenile)

Walvis Bay X-mas tree line: 22 57 55.5S 14 36 00.1E, close to Dune 7 turnoff on pipeline route

Close to pole, jackals have dragged carcass, possible electrocution

VULNERABLE species in Namibia

Reported by Peter Cunningham

1 July 2014

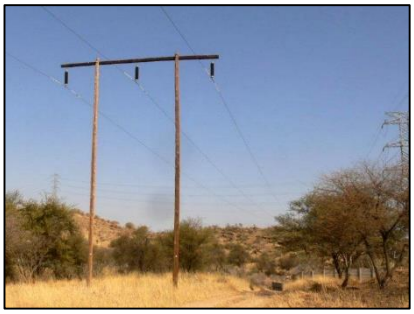
Reed Cormorant (juvenile)

Gammams Sewage Works 22 32.095S 17 01.623E

Probably collision, midspan on either 220 kV and 66 kV line (22 kV line further to north)

Reported by Neil Thomson

27 July 2014




2x vultures

Neudamm Agricultural College, west of Hosea Kutako Airport

Probably electrocuted

Likely to be THREATENED species in Namibia

Reported by Liz Komen

5 November 2014

PTO for EIS newsletter

The EIS currently contains information on 10,070 data sets – congratulations to our EIS team!

What's new?

Literature database

The number of literature records on the EIS has grown a lot recently - now standing at 9,500 - thanks to a major effort of scanning and uploading reports and documents which were previously hard to get hold of. Thanks to everyone involved for facilitating this process.

Please use the Upload button to submit files or Contact us if you have hard copies which need to be scanned.

Citizen science

The number of records in the mammal and carnivore atlas also continues to grow and has reached almost 5,000 records. This represents many peoples' time - recording the animals that they see, taking photos, GPS coordinates and other information and then uploading that to the EIS. The results can be viewed online using the 'View the map in the EIS plug-in' or can be downloaded as a kml (Google Earth) file to use on your own computer.

* NEW on the EIS: Monthly Burned Area reports *

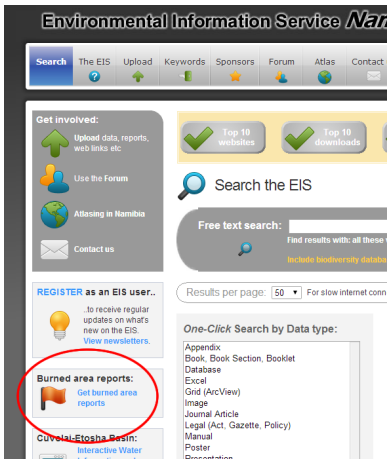
The Directorate of Forestry's National Remote Sensing Centre compiles a burned area report on a monthly basis from June to December. These complement the active fire bulletins that are produced and distributed daily. Each report presents the burned area situation from the start of the fire season up to the preceding month. The first report is issued in June and shows burned areas and statistics for the period from January to May. The last report appears in December and presents the situation for the entire season up to the end of November.

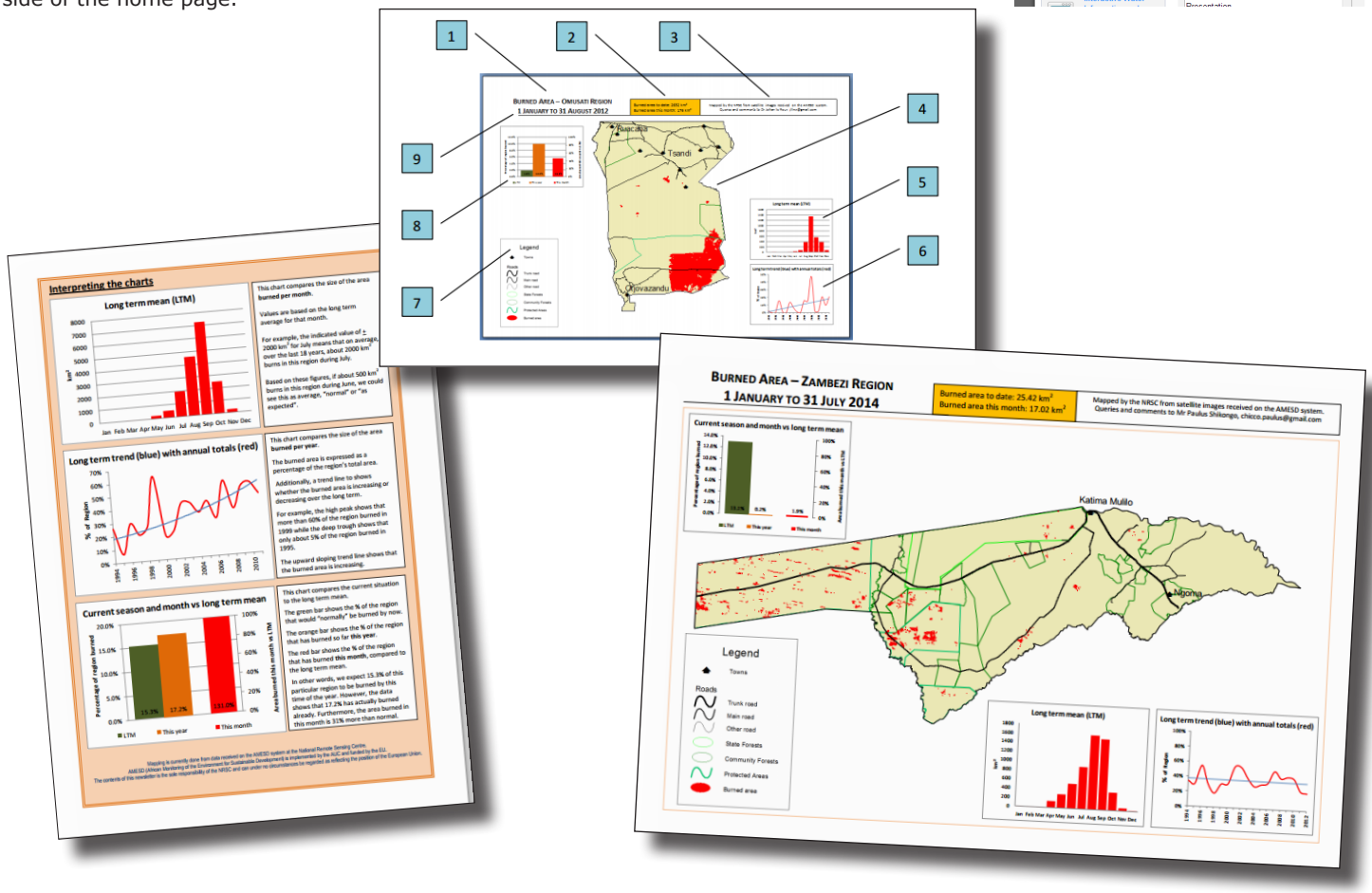
These are now available on the EIS using the 'Burned area reports' link on the left hand side of the home page.

Each report contains a wealth of information. For each region the area burnt from the beginning of the year to date is mapped; the current season and month is compared to the long-term mean based on 18 years of data; statistics are given on the total area burned to date and this month; and more.

Clear information is provided on how to interpret the charts and these reports will be invaluable to a wide range of organisations and individuals.

Thanks to the Directorate of Forestry for facilitating the sharing of these reports.





Number of records in the EIS: 9,566