THE BARKING GECKO

Newsletter of the NamibRand Nature Reserve

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Photo: www.skyhawkphotography.com

Skyhawk Photography provides a bird's eye-view of the endless landscapes that make up NamibRand Nature Reserve and the Pro-Namib Desert.

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Dry times at NamibRand

As the long-awaited rain fails to make an appearance and temperatures soar to above 40 degrees with strong winds, one cannot but wonder at the resilience of all the creatures and plants that have managed to survive in this beautiful but challengingly arid environment over the years.

This issue brings you a unique bird's eye-view of NamibRand, and exciting events in the pipeline for sky watchers. The results of our annual game count are available and, since then, numbers of plains zebras have been reduced by 104 by means of a live game capture that also included two giraffes. A recent fire drill gives a reminder of the ever-present possibility of wild fires in these dry, windy conditions. The removal of over 20 km of fencing between Aandstêr and Springbokvlakte/Saffier is a welcome conservation achievement. As always, NaDEET is buzzing with news of activities to promote sustainable living.

Our research reports include new insights into the rock art at Vreemdelingspoort; fascinating navigation techniques by dung beetles; our regular slot on International Vulture Awareness Day; the successful translocation of a cheetah family group and their extensive wanderings; a summary update on predator reintroductions since 2008; and proof of new connections between our mountain zebra sub-populations.

We would like to wish you all a happy and blessed festive season with your loved ones, safe travels and a shiny new year. Our special good wishes go to our CEO, Nils Odendaal, his wife Danica and their two daughters who are enjoying a much-needed break in the United States with their family.

Ann Scott

NamibRand from above

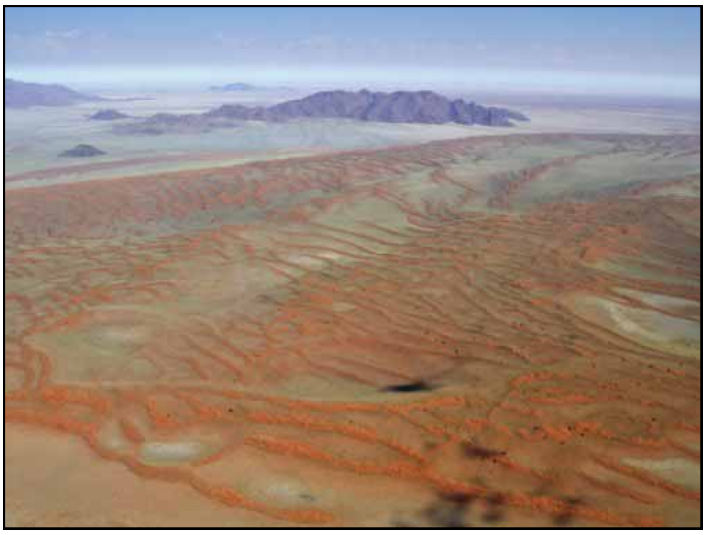


Photo: www.skyhawkphotography.com

Jan and Jay Roode overflew NamibRand in their virtually silent Jabiru 430 aircraft, obtaining some spectacular images.

In June this year we were given the opportunity to partner with NamibRand on an exciting aerial photographic project of the Reserve. The aim of the project was twofold; to capture beautiful aerial images to be used for products such as postcards, gift cards, posters and books to raise funds for conservation projects within the Reserve, and to make an infrastructural census of the area.

But before I get ahead of myself let us introduce ourselves ……. Jan and I are a husband and wife team that have dedicated the last four years to flying over 40 000 nautical miles over the extraordinary landscapes of southern Africa, taking images that we hope capture the true beauty of some the wildest places left on earth. Why? Because we are passionate about flying, travel and conservation in Africa …. or perhaps obsessed would be a better word!

Having travelled to over 60 countries, we count NamibRand as one our most favourite places on earth. My love affair with NamibRand started a couple of years ago on a driving assignment through Namibia. I found myself sitting one afternoon on the sun-baked wall of the wide patio of the NamibRand Family Hideout gazing out over a landscape so beautiful that it literally made my heart trip over itself. I remember raising my eyes skyward and thanking the heavens above for Albi Brückner. As I learned more of what this visionary man has achieved he became my instantaneous hero. In fact I am so enamoured with Albi that I have been promising for years to start selling "I love Albi" bumper stickers!

This time around, however, we had the immense privilege of flying over this indescribable landscape and experiencing one of life's great gifts – enormous, untouched, unpopulated space! Trying emotively to put into words what it feels like to take off with the sunrise and fly low over dunes and plains covered in oryx and springbok is one that I am going to have to leave for our images to convey.

Having flown through Namibia on numerous occasions we are always amazed at how changeable this landscape can be; how sensitive it is to the slightest change in climate. This year our visit coincided with one of the wettest periods in Namib history and the ochre dune fields had been transformed into meadows dotted with wild flowers. Fairy circles just faint outlines in previous years were now ringed in luminous green. The plains game were plentiful, fat and happy, and young abounded.

NamibRand is one of the largest private nature reserves in southern Africa and is expanding each year as more like-minded individuals include further parcels of land within the boundaries of the Reserve. Over a week-long period we flew the length and breadth of of this 172,200 ha Reserve and were awed at its enormity and how well managed it is.

All infrastructure is neat and well cared for, all road networks meticulous with no erosion or tell-tale car tracks scarring the landscape, there is precious little evidence that cattle and karakul farming ever took place and all the lodges are expertly designed to blend effortlessly into the landscape. An enormous amount of love, thought and respect has gone into all projects on the Reserve.

We hope through our partnership to make a meaningful contribution to conservation and awareness raising in NamibRand for years to come. We would like to thank Stephan Brückner, Nils Odendaal, Mike and Ann Scott and all the Wolwedans staff who made our stay possible.

Jay Roode

Photos: www.skyhawkphotography.com

A lone oryx (left) and a lone ostrich in the "enormous, untouched, unpopulated space" of NamibRand.

Sky watching

As hoped, NamibRand's leadership role in preserving Africa's dark skies through its designation as an International Dark Sky Reserve (IDSR) has heightened interest in the region in the International Dark-Sky Association's International Dark Sky Places programme. In August 2012, at the request of Transfrontier Parks Destinations, I visited the !Ae!Hai Kalahari Heritage Park, a section of the Kgalagadi Transfrontier Park controlled by the San and Meer peoples, to perform an initial evaluation of its potential as an International Dark Sky Park (IDSP). This is a designation reserved for Dark Sky Places located entirely on public lands. While some exterior lights in the area would need modifications, measurements of its sky showed that the park is already an extremely dark area. Work is underway to have the park meet the requirements to become an IDSP and it is hoped that in 2013 it will achieve that status. While visiting the Kgalagadi Transfrontier Park, I also met with officials of the South African National Parks (SANParks) who expressed interest in having all five of their arid parks seek IDSP status. Evaluations of these parks are planned for 2013.

Because of its dark sky, NamibRand will be a great place to view some interesting astronomical events in the remainder of 2012 and early 2013 as well as two potential spectacular events occurring later in 2013.

Here is a list of the events for late 2012 and early 2013.

December 3 - Jupiter at Opposition. The giant planet will be at its closest approach to Earth and its face will be fully illuminated by the Sun. This is the best time to view and photograph Jupiter and its moons. Its four brightest moons Io, Europa, Ganymede, and Callisto can easily be seen through binoculars, appearing as faint stars on either side of the planet.

December 13, 14 - Geminid Meteor Shower. Meteors, also known by the misnomers falling or shooting stars, are pieces of rock or metal travelling at very high speeds that heat up when they enter the Earth's atmosphere. The ones commonly seen are the result of particles only the size of very small pebbles burning up. The Leonids is one of the better meteor showers with an average of 40 meteors per hour at its peak. Meteors occur when the Earth passes through a region of space where in the past a comet (see below) has travelled and released a cloud of these small objects. Considered by many to be the best meteor shower, the Geminids are known for producing up to 60 multicolored meteors per hour. The peak of the shower usually occurs around December 13 and 14, although some meteors should be visible from December 6 - 19. Best viewing is usually to the east after midnight with the meteors appearing to originate from a point in the constellation of Gemini. This year there will be a new moon at the time of the peak so the sky will be perfect for viewing the shower.

January 3, 4 - Quadrantid Meteor Shower. The Quadrantids are another good shower, with up to 40 meteors per hour at their peak. The shower usually peaks on January 3 and 4, but some meteors can be visible from January 1 - 5. Best viewing will be after midnight with the meteors radiating from the constellation Bootes. Unfortunately the bright near-last-quarter moon will hide many of the fainter meteors.

Photo: Bernd Pröschold

Wide angle shot of the Milky Way and the Magellanic Clouds taken near Wolwedans Dunes Lodge

Later in 2013: two recent discoveries may offer some of the best comet viewing ever. Comets are rocky snowballs composed of frozen gases, rock and dust. When a comet's orbit brings it close to the sun, it heats up and spews dust and gases into a giant glowing head (coma), larger than most planets. The dust and gases then form a tail that stretches away from the Sun for millions of kilometers. The head and tail reflect the Sun's light, making a beautiful sight in the sky. When they are first discovered far from the Sun, predicting how bright a comet will become is a risky proposition, but based on past observations these two comets may become very bright.

The first comet of 2013, officially named C/2011 L4 PANSTARRS, but commonly referred to as PANSTARRS, may be visible to the naked eye in late February and early March. It will be especially well placed for viewing from the Southern Hemisphere and if it develops as expected will be as bright as the brightest stars in the sky.

The second comet of 2013, officially C/2012 S1 but commonly called Comet Ison, may dominate the night sky from November 2013 until early 2014. At the moment still as far away from the Sun as Jupiter, it has the potential to be one of the most spectacular astronomical objects in recorded human history. While it will be better placed for observers in the Northern Hemisphere, it will also offer good viewing in the southern skies. If it develops as predicted, at its peak in November it may be brighter that the full moon!

Only time will tell if either one or both of these objects enter the short list of "great comets". In any event, the publicity surrounding the approach of these objects will increase public interest in the night sky and raise the profile of the NamibRand International Dark Sky Reserve as a place to view such phenomena. More information about these celestial visitors can be found at this site: http://www.alamogordonews.com/ci_21649181/two-possible-great-comets-coming-2013.

George Tucker

Results of the June 2012 game count

Photo: Morris Gosling

The magnificent red hartebeest continues to thrive on NamibRand.

Natural fluctuations in wildlife populations are driven primarily by rainfall, usually evidenced by seasonal migrations. Over the total count period, high mean rainfall (200-250 mm) was usually accompanied by an overall increase in estimated numbers, whereas lower mean rainfall was associated with a decrease in these numbers. Coupled with good rainfall, the area available to the game has increased with the gradual breaching of fences with neighbouring properties, and especially with the inclusion of the Pro-Namib Conservancy (Zone 9; 16 450 ha) in June 2009. In 2012 the count area was further increased by the addition of Springbokvlakte and Saffier (Zone 10; 23 510 ha) and with it, the area available to the game, now a total of 194 232 ha.

Data collected by participants in the June 2012 game count on NamibRand Nature Reserve and the Pro-Namib Conservancy (the combined "count area") were collated and analysed, bearing in mind our three core objectives:

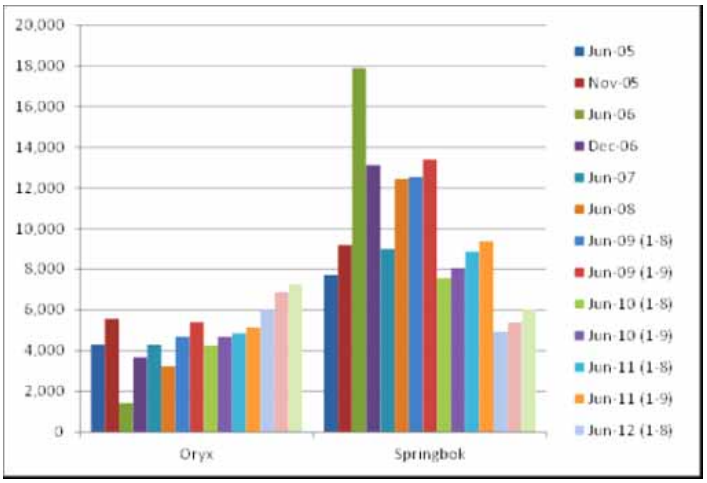
Objective 1: Population estimates

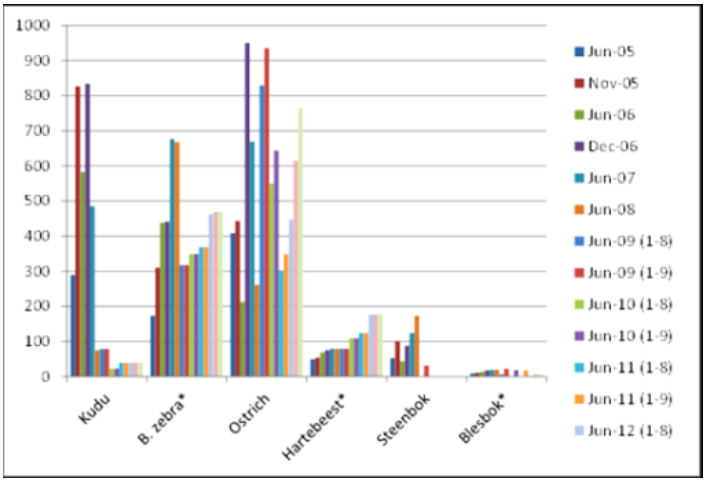
Total numbers of game as estimated by the June 2012 game count are summarised below and indicated in the two graphs:

Species	Zone 1-8	Zone 1-9	Zone 1-10
Oryx	6 054	6 913	7 296
Springbok	4 964	5 393	6 069
Kudu	41	41	41
Plains zebra*	464	470	470
Ostrich	448	615	765
Blesbok*	1	7	7
Hartebeest*	177	177	177
Total	**12 149**	**13 616**	**14 825**
Percentage change	-17	-12	*n/a*
*Giraffe***	*6**	*6**	*6**
*Ludwig's Bustard***	*109*	*109*	*117*

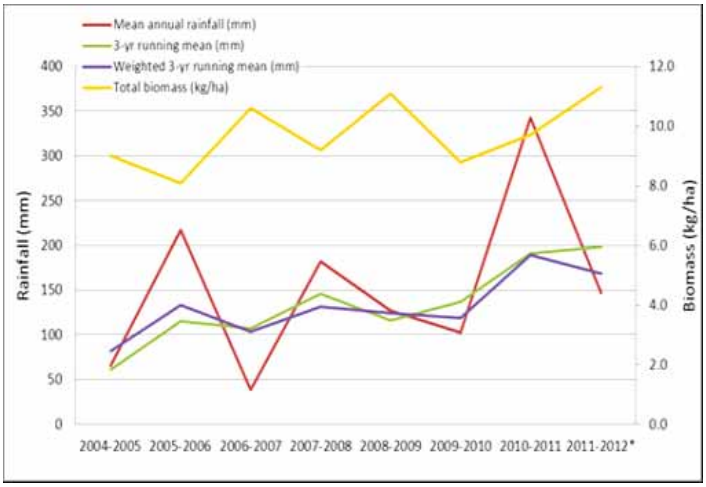
**Numbers are known* ***Not included in count*

The results show that estimated numbers of oryx are increasing steadily and are now over 7 000, compared to 5 100 in 2011. Conversely, numbers of springbok have dropped from 9 400 to just over 6 000, a decline of 36% over the previous year. Numbers of plains zebra have increased to 470, and of red hartebeest to 177. *(Continued on p5)*





Estimated numbers of oryx and springbok (above) and other plains game species (below), based on game counts since June 2005.



Total estimated biomass (the combined weight of all game species counted) in relation to rainfall figures from 2004-2005 shows a classic "lag" of one year, reflecting good or poor breeding following good or poor rainfall.

(Continued from p4)

This year, rainfall data were recalculated to cover a full season, namely from September to August (as opposed to January to December). Rainfall during the previous season (2010/11) was exceptional (343 mm from September to August), and overall estimated numbers increased by 13% (Zone 1-8) and 11% (Zone 1-9).

However, the rainfall in 2011/12 was closer to the average (147 mm; September to May), and this was accompanied by a decrease in these numbers of 17% (Zone 1-8) and 12% (Zone 1 -9). In June 2012 the overall population estimates are 12 149 (Zone 1-8), 13 610 (Zone 1-9) and, with the inclusion of Zone 10, a total of 14 825 animals. It should be borne in mind, however, that these numbers are purely estimates.

With the lower rainfall in 2009/10, the biomass dropped accordingly, but this trend was reversed with the high rainfall in 2010/11 when biomass increased from 9.0 to 10.1 kg/ha (Route 1-8) and from 8.8 to 9.7 kg/ha (Zone 1-9). In 2011/12, despite drier conditions than the previous year that were accompanied by a decrease in overall estimated population numbers, the total biomass increased again to 11.0 kg/ha (Zone 1-8), 11.3 kg/ha (Zone 1-9) and 10.6 kg/ha (Zone 1-10) by 9% for Zone 1-8, and 17% for Zone 1-9. The above figures are still well within the biomass of 15 kg/ha that is considered the maximum for our area.

Comparisons between the above biomass results and average annual rainfall figures indicate a classic "lag" of one year, reflecting good or poor breeding following good or poor rainfall.

The long term increase in both estimated numbers and estimated biomass of oryx appears to be inverse to the decrease in springbok numbers. The present relationship in densities between these two species is also inverse. The reasons for this relationship are not known, and should be investigated further.

Oryx comprise 79% of the total biomass for the count area (Zone 1-9), compared to springbok (11%). However, both species are relatively independent of water and thus able to migrate in order to optimise changing foraging conditions. Their populations are therefore regarded as self-regulating over the long term.

Objective 2: Wildlife distribution

The highest densities of wildlife (Zone 1, 2, 5 and 6) were recorded in the northern parts including the foothills of the Nubib Mountains and Losberg, the Keerweder plains and the Chateau plains. The lowest densities (Zone 4, 7 and 9) were mainly in the dune areas north-west of Wolwedans; the Gorrasis area; and Excelsior/Dina. Densities in the remaining areas (Zones 3, 8 and 10), namely Kwessiegat, Aandstêr and Springbokvlakte/Saffier were also moderately low. These distribution patterns are likely to reflect the optimum grazing/ browsing conditions in habitats such as the foothills at this time, compared to conditions on the dunes and in other parts.

Objective 3: Population change

The total population density in June 2011 rose to 693 individuals per 100 km, an increase of 9% compared to the previous year that appears to be directly related to the exceptionally high rainfall in 2010/11. In June 2012, the density dropped again to 339/100 km (Zone 1-9), a decrease of 51% compared to the previous count. This trend likewise appears to be related to the lower rainfall in 2011/12.

In June 2011 the extreme northern and central parts of the Reserve showed the highest increase in wildlife, with a decrease only in Zone 2 (36%). In marked contrast, the results for June 2012 showed a decrease for most zones, with up to 76% (in the extreme north), and only a slight increase (7%) in one count area (Zone 4, the dunes north-west of Wolwedans).

The full report on the June 2012 annual game count may be downloaded from the NamibRand website at http:// www.namibrand.org/Library.htm.

Ann Scott

Photo: Quintin Hartung

A new baby giraffe was born at Draaihoek early in July 2012.

Live game capture

Photo: Quintin Hartung

A Schweizer 300 piston engine helicopter was used for the game capture.

After recent total counts indicated that we have too many plains zebra on the Reserve, we decided to decrease their numbers by means of a live capture. After a few weeks' postponement, the game capture team finally arrived on Tuesday 16 October 2012 and started putting up the capture boma on Verweg. After this was completed, we started capturing on the following afternoon. As a successful capture greatly depends on the wind direction and on cool temperatures, we were confined to trying to capture only during the early mornings and late afternoons. After the first few mornings we realised that mornings would be almost impossible to try and capture zebra because of the wind direction, because to get the animals to go into the boma, we needed the wind to blow from the north/north-east so that the animals would not smell the boma and the people at the boma, but as Murphy's law would have it, we had south wind every morning for the duration of the capture. This restricted the capture even further and we had to make do with the slightly north-westerly wind that blew during the late afternoons. On the Wednesday we managed to capture 13 zebra which were transported to Neuhof Reserve, just east of NamibRand. On Thursday afternoon, we captured another 16 zebra for Neuhof which were also taken there. Friday was not a good day, as we had east wind the whole day, and could not capture anything. On Saturday we had a quite successful capture, managing to capture 42 zebra, of which 14 went to Springbokvlakte (in the south of the Reserve) and 28 to Gondwana Namib Park. On Sunday we managed to capture another 33 zebra, all of which went to a farm closer to Windhoek. After five days we had managed to capture 104 zebra. On the Monday, we turned our attention to the giraffe, which were also scheduled to be captured. We captured the two younger animals (one male and one female) that had been born in 2011. All in all, we had a fairly successful capture, with a total of 104 plains zebra and two giraffes in less than a week!

Quintin Hartung

Photo: Quintin Hartung

The helicopter herds the zebras into the boma (an enclosure covered with plastic sheeting).

Photo: Quintin Hartung

After the antidote has been administered, the giraffe is gently encouraged to enter the trailer, using a network of ropes.

Photo: www.gondwana-collection.com

Twenty-eight plains zebras are released from the boma into their new home on the Gondwana Namib Park.

Fire drill and recent fires

A second half-day fire drill was held at Keerweder on 26 October 2012 (see June 2012 issue of The Barking Gecko). As before, the idea of the drill was to bring all stakeholders on the Reserve together for a joint participative venture to discuss fire-fighting equipment, gear, training requirements and operational aspects. To newcomers it was a good introduction to fire management, and also an opportunity for many as a refresher course. The workshop was well attended, with participants from various fields representing the Reserve and its concessionaires. The programme comprised theoretical and practical sessions, supported by the Reserve's Wildfire Management Guidelines document. The drill is also a good platform to discuss previous fire events, workshop new ideas and discuss the latest technology.

Some important tips regarding fire prevention:

- Make sure that the radiators and undersides (exhausts, etc.) of vehicles are free of grass/grass seed
- Keep the grass component of the road "middelmannetjies" as short as possible
- Recycle, compost or reuse waste where possible. Try to avoid burning!
- Test your equipment and yourself regularly

The theoretical session was guided by means of a power point presentation, with inputs from those participants with knowledge on the subject. The level of participation and enthusiasm was high, and the team work spirit very good. Many ideas and experiences were shared and consensus was reached on the way forward regarding procedures, equipment and gear requirements and training. The workshop seems to have been well timed as there were several fires soon afterwards where these aspects could be applied—in fact the day after the workshop a fire was caused by a tourist lighting a gas stove in a strong wind at the Sossusvlei Desert Lodge turnoff on the C27; this was soon followed by another fire on Chateau Plains .

Regular fire drills serve to promote team work and the sharing of ideas on wildfire management techniques and procedures. These exercises will be held in February and October each year—please diarise these months as such; everyone is encouraged to attend.

I would like to thank all concerned for their participation and enthusiastic inputs, which played an important role in making the morning a great success—as was also shown by the subsequent good team work in managing wild fires on the Reserve.

Mike Scott

Ideas are exchanged during the theory and discussion session.

A beater is used to smother the flames, rather than to "beat".

Extinguishing a fire using fire hoses (right) and beaters (left).

A wild fire at Sossusvlei Desert Lodge the following day provided an opportunity to apply the skills acquired at the fire drill.

Photos: Ann Scott

NamibRand at the Green Fair

The Deutsche Höhere Privatschule invited NamibRand Nature Reserve to attend the school's annual bazaar on 17 August 2012. The theme of this year's event was *Green Bazaar*, with the key aspects being:

- Less rubbish and more recycling
- Organic food
- Green Fair
- Eco Pub-Quiz

At the Green Fair, NamibRand Nature Reserve was allocated a stall to exhibit and promote the Reserve and all that its concessionaires have to offer with regard to sustainable living. Posters and brochures from NaDEET, NamibRand Family Hideout, Tok Tokkie Trails, Wolwedans and NamibRand Nature Reserve were all displayed at the stall, manned by Barbara Wayrauch and myself. Our stall attracted many visitors at the Green Fair, ranging from people who have been to the Reserve in the past and want to reminisce about their experience on the Reserve and people wanting to visit the Reserve to do the Tok Tokkie Trail or stay at the Family Hideout or Wolwedans, to parents whose children had either been to NaDEET or were about to visit the centre with their school.

After the Green Fair, an Eco Pub-Quiz was held in the school hall. Two of the prizes were from NamibRand. One prize was a NamibRand Conservation Foundation poster and the second prize, which was also the main prize at the Quiz, was a Free Tok Tokkie Trail.

Thank you to all the concessionaires who contributed to the exhibition and to Barbara Wayrauch for her help in manning the NamibRand stall.

Also see http://youthinkgreennam.org/namibia/field-projects/the-green-bazaar-2012-at-dhps/

Quintin Hartung

Photo: Carsten Antoni

Left: Quintin Hartung at the NamibRand stall at the Green Fair.

News from the south

Once again Aandstêr is under cultivation with fresh organic produce.

Greetings to all from the south of the Reserve! I hope everyone survived one of the coldest winters I have ever experienced in the Namib. Finally spring seems to have arrived and all the plants and trees are enjoying the longer days, and it is now time to plant!

Probably for the first time since Thys Louw was on Aandstêr we have cultivated the area behind the *Prosopis* trees at the homestead. We have installed an irrigation system and put lots of good food into the soil to give it a boost and hopefully ensure a bumper crop in a few months time. We have planted melons, which historically grow very well in the Namib, different sorts of maize and assorted pumpkin and squash, not to mention some Owambo ground nuts - a tasty delicacy from the north. Hopefully we shall soon be able to invite you to come and sample our fresh, organic produce. A variety of herbs is also on the go, and so are tomatoes, peppers, eggplant and radishes. I will keep you informed as to what is available, and when. Judging by the blossoms and the fact that we haven't actually had any severe frost this winter it looks as though the citrus harvest will also be good. This year's harvest was very poor. *(Continued on p9)*

Photos: Peter Woolfe

Jakobus Kooper arrives on the Losberg by helicopter.

(Continued from p8)

Otherwise the last couple of months have been quite eventful down here and progress has been made. Quintin (Hartung), Jakobus (Kooper) and I were treated to a helicopter ride to change the batteries at the repeater on Losberg. We were lucky to have an extended trip to boot, as the pilot first dropped a client at Boulders before taking us back to Aandstêr. I must say this is the way to fly over the Namib, as one flies lower than in a plane and the "chopper" is much more maneuverable around and between the mountains. It was an awesome experience. Quintin didn't enjoy it so much and insisted on climbing the Losberg to see if that wasn't more fun! Jakobus's eyes were the size of saucers as his white knuckles gripped the arm rests – but he enjoyed it.

On the conservation front further progress was made. Finally, at our second attempt we managed to eradicate the blesbok population in the south. This was no easy task, as anyone who has tried to hunt these antelope will tell you. They see you coming 2 km away and they don't just bolt, but scatter – then the fun begins. The first attempt about a year ago was done by Andreas (Keding), Quintin and myself and yielded only one animal. This time we roped in some extra help from the Verwey brothers from Maltahöhe, Louis Fourie from Excelsior and one other neighbour, and this time the tally was 12. It appears to be the whole population as there have been no sightings since. The cull was necessary as the blesbok was an introduced species and does not belong in the Namib, further with the current "Namspace" project there was a chance the population would spread as fences are removed.

Another project that was started, as a result of the inclusion of Springbokvlakte within the Reserve, is the removal of the boundary fence between Aandstêr and Springbokvlakte. It is a long boundary going from the corner where the four farms, Ecelsior, Dina, Aandstêr and Springbokvlakte all join and then about 19 km to the west, as far as Satanskop. It is always difficult to imagine what a difference it makes when a fence is removed until one actually sees it – it is enormous! There are still about 6 km to go, although when turning into the gate at the entrance to Springbokvlakte and looking west, for as far as the eye can see, the fence is gone, somehow making the view even wider than one remembers it.

On the subject of Springbokvlakte, we managed to remove about 28 tons of scrap from the property and from Saffier, although sadly the difference it not as noticeable as there is still about the same amount to be removed. A load was also taken from Aandstêr but, here again, there is still more to go.

As most will have heard, we also effected another successful cheetah release from Aandstêr (see page 16 of this issue).

Since the last rains a group of six plains zebra moved into the area and has been seen in the southern part of Aandstêr. They were spotted again a couple of weeks ago and I'm happy to announce that there are now seven - they had a very young foal with them! Hopefully this means they will stay in the area. Another mare looked to be heavily pregnant as well, so hopefully the number might soon be eight.

(Continued on p10)

Photos: Peter Woolfe

Top to bottom: Removal of the fence between Aandstêr and Springbokvlakte/Saffier; removal of 28 tons of scrap metal; the "Cat" on its way to Windhoek, with some scrap metal; and the new waterhole just north of the Aandstêr homestead.

(Continued from p9)

On 21 October 2012, 14 plains zebra were released on Springbokvlakte. None of them were seen for a while after the release, as the animals were very stressed after the capture and scattered in all directions. Sightings since have placed one with the existing herd of eight on Springbokvlakte, three on De Duine farm and nine on Saffier near the Sonop border.

Photo: Viktoria Keding

I don't think it's too early to wish all a fantastic rain season this year and may all our game have enough good grazing for another year.

Peter & Franzi Woolfe

Three of the plains zebra were observed at the waterhole at NaDEET base on Die Duine on 30 October 2012.

Little Bugs Newsletter

Photo: Little Bugs

Dear Little Bugs Friend

I invite you to read our first newsletter that includes exciting stories and updates about our project. Please visit our website (see below) to access your copy.

Little Bugs is an early childhood development centre created by Namib Sky Balloon Safaris and offers free education to children in the local community of Sossusvlei. We are introducing a safe, healthy, stimulating, child-friendly environment, for quality Early Childhood Education, accessible for all, in cooperation with the Ministry of Gender and Child Welfare, the Namib Sky Community Foundation and donors.

Thank you for being involved and supporting this beautiful project to grow stronger.

Kind regards from the Little Bugs team and we look forward to hearing your feedback.

Andreia Hesemans

Tel +264 81 3603792—Fax +264 63 683189
Email:info@little-bugs.org—www.littlebugs.org

Be out in nature to witness nature

It was a beautiful morning, partly cloudy, with mild wind that is a sign of action in nature.

Starting off from Wolwedans Dune lodge towards the northern part of the NamibRand Nature Reserve somewhere near Keerweder Pan, I encountered the beautiful moment of the day, a big impression of a Cape cobra in action hunting for a mouse and gerbil.

A Cape cobra is known for its neurotoxic venom, which attacks the nervous system (causing paralysis). A snake performs an effective rodent control function in the ecosystem. I was surprised to see the Southern Pale Chanting Goshawk benefitting from the Cape cobra's hunt as my impression was that this bird would rather hunt a Cape cobra. The Cape Cobra was going from hole to hole trying to get the gerbil, which was nearly impossible because as the gerbils escaped/went out through "emergency exit", the goshawk then snapped them away.

The goshawk was at close range to the snake, as the snake was going into the hole, the bird was on the look-out where the gerbil would come out until it was satisfied and then left the snake. Suddenly after the bird left, the gerbil was found, it came out from the burrow via emergency exit. Wow! I did not know the gerbil was not fast enough to run away from the snake. The gerbil's main defence against attackers is camouflage. Finally it was caught and immobilised with the venom and was swallowed afterwards by the snake. Neurotoxins affect the nervous system, causing breathing and swallowing difficulties that disrupt the working capabilities of the heart. This makes a gerbil stumble around in a daze for some time before dying.

My conclusion regarding this experience is that this could be the reason why Southern Pale Chanting Goshawks are always found on the ground, simply not because of lizards and other prey, but due to the benefit from Cape Cobra.

Simon Hamola and Mbangu Lucas

Photo: Simon Hamola

A large Cape cobra caught in the act of swallowing a gerbil.

News@NaDEET

The renovation of our Centre is complete ahead of schedule! As reported in the last issue of The Barking Gecko, three houses were reconstructed in February and the second three houses and additional teacher accommodation, a bathroom and a urine diversion system (UDS) toilet were built in May.

On completion of the works our Environmental Education activity was back to operating speed on the last week of May already, when we received 15 members of the Directorate of Youth coming from all around Namibia for an intense week of "training of trainers". The programme was praised with enthusiastic comments by all of the participants.

The new NaDEET Centre was officially launched on 2 June when we hosted all the landowners and representatives of the Reserve concessionaires at NaDEET Centre for the NamibRand Nature Reserve (NRNR) Annual General Meeting. The participants also drank a toast to the recognition of NRNR as a IDSR (International Dark Sky Reserve).

Five primary schools visited NaDEET Centre in June. The Regional Director of the Ministry of Education, Mr Ben Boys and two colleagues, came to visit for two days during the school programme for St Joseph's Primary School from Rehoboth. Director Boys and his team were able to assess NaDEET programmes first hand and, through documentation, the linkages between NaDEET's activities, the Namibian school curriculum and national development agendas. They were positively impressed and recognised that NaDEET is working in the best interest of Namibian learners. Moreover, Director Boys has pledged the Hardap Region Ministry of Education to provide transport for the schools from the region that are to take part for the remainder of the EU funded action which ends in December 2013. With the high cost of transport still being a barrier for most schools, we are really glad to receive this support from the government.

In July Empelheim, Daweb and WJD Cloete Junior Secondary Schools - three returning local schools - took part in the programme as a part of NaDEET's NNF-NedBank Go Green fund sponsored project.

Two community groups visited the Centre in August and one in September, bringing the total number of participating groups to 14 since 2010 when we started our programme for adults. This year we improved it and the feedback we received from Maltahöhe, Uibes and Klein-Aub community members was very positive. We no longer give out solar cookers (one to every two participants), but all the participants have now the chance to "earn" their own cooker by passing three practical tests to demonstrate what they have learned during their week at NaDEET. For each test passed, participants are awarded with a N$200 voucher for a total amount of N$600 with which they can purchase their cooker (or choose to add up the missing amount if they failed one or more tests). We hope to develop this model as sustainable energy products become more available through local suppliers.

Photo: NaDEET

St Joseph's Primary School leaners making recycled paper firebricks.

"Freundschaft mit NaDEET" experience NaDEET Centre for a week in August.

Photos: NaDEET

Maltahöhe community members celebrate and show off their vouchers.

In August we also welcomed a group of 20 German tourists taking part in a trip organised by "Freundschaft mit NaDEET", our support organisation in Germany. The group enjoyed NaDEET Centre, its activities and its special setting. The highlight of the week was the day-long visit to Maltahöhe to experience Namibian culture and see practical examples of the results of NaDEET's work. Our visitors from Germany also launched the two houses sponsored by "Freundschaft mit NaDEET".

Another "house sponsor", the Rotary Club Windhoek, enjoyed a weekend-long visit at NaDEET Centre in August.

With the third school trimester in full swing, NaDEET Centre is back to hosting primary schools and we are looking forward to receiving the ten more groups that are scheduled from now till the end of the year!

Naike Marengo

Introductory report on the rock art at
Black Table Mountain Shelter

Visiting NamibRand in 2011, during some of the heaviest rains in more than 100 years, we experienced the remarkable transformation of the dusty plains to a lush grass fields of green and yellow Devil's thorn. At this time we began the digital documentation of the rock art at the Black Table Mountain shelter on Vreemdelingspoort, in the north of the Reserve. Trying to learn the significance and to understand the symbols of the paintings, relating the meaning of the art to the people who made them and the habitat they lived in, ignited my interest in historical ecology. This field integrates the disciplines and methods, for example, of archaeology, anthropology, geography, climatology, history, and even biochemistry, to reconstruct the human and naturally produced environmental changes that have taken place in a landscape.

The large, beautifully realistic giraffe painting at Black Table Mountain Shelter.

This strange ochre yellow creature bending forward could symbolise a "therianthrope" - an animal that turns into a human or vice versa*, normally associated with rain-making ceremonies.*

Are these lines symbols or geometrical signs for something, possibly rays radiating from the sun or rain?

Photos: Maria Wilén

Who made the paintings? Why did they paint them? And, how did the artists, and other members of the group, adapt and exploit the harsh dry environment to make it at least temporarily livable? I hope, eventually, to learn about the social and environmental history of the NamibRand environs before it became a nature reserve.

The archaeologists Dr John and Jill Kinahan have carefully studied the rock art and the ancient people of Namibia. John concludes that the paintings at Hungorob ravine at Brandberg were used as part of a rainmaking ceremony. A comparison of the Hungorob paintings with the motifs in the shelter and the surrounding habitat of Black Table Mountain suggests that these, as well, could have been used in rain-making ceremonies. For example, the kudu cow is a symbol for "soft" rain and some of the abstract figures possibly depict the unconscious state of a shaman or rain-maker. Kinahan describes the symbolic significance and placement of the outline of a giraffe, which is depicted only as its long neck and back; however, this figure might at the same time symbolise a water-dwelling python, which would suggest that the figure was part of a rain-inducing ritual. At Black Table Mountain, the large, beautifully realistic painting of a giraffe on the underside of a flat rock close to the occasional watercourse might have a similar significance.

Another example of motifs for rain-making ceremonies is the therianthropes, animals that turn into humans or *vice versa*. An ochre yellow creature bending forward, a typical posture for these creatures, could symbolise a therianthrope. To obtain a scientific review of the paintings so far documented, Dr Beatrice Sandelowsky has kindly helped me examine the photographs of selected motifs. We will make additional and more detailed documentation using advanced high resolution photographic equipment at the shelter.

In documenting rock art it is essential to be sensitive to the significance of the productions to contemporary descendants of the community that created them. Because the sites were purposely chosen, the adjacent habitat is the context of the ceremony, and thus as important as the art itself. It is therefore appropriate to keep the integrity of the physical location as well as of the intellectual value as intact as possible when considering exploring a rock art site for tourism.

The memories of attendants at NaDEET environmental courses could be a valuable source for information about the ceremonies or other events connected to the rock art. An exhibit of the shelter, circulating between the lodges and NaDEET, possibly in the form a "cyberspace" walk-through of the site, might be a way for international visitors as well as local people to learn about the social and ecological history of the region.

Read the full report at the Library site on the NRNR website.

Maria Wilén and Barry Dworkin

The homing beetles of NamibRand

On their day-to-day foraging trips, some insects travel tens, hundreds or even thousands of metres. They then return to their nest by the shortest route possible with pin-point precision. To accomplish this truly amazing task, insects remember the exact direction and distance to their home and continuously update this information while they are foraging. This navigational strategy is known as path integration; for it to work, the animal needs some form of biological compass to determine its orientation and an odometer that tells it how far it has gone.

While the compass mechanism of many insects is fairly well studied with many species using the position of the sun or some similar skylight compass, we still have a poor understanding of how animals estimate travel distance. Honeybees have been shown to do this by measuring how the world moves across their eyes, the so-called "optic flow". We humans, on the other hand, can obtain a rough estimate of how far we have walked by counting our footsteps. A similar odometer, but with a precision far superior to our own, is used by desert ants and fiddler crabs. This amazing ability, however, requires the animal to measure precisely the effective length of each step, making this strategy extremely difficult on slippery surfaces – such as the sand of the Namib.

We came to NamibRand Nature Reserve in October 2011 to study the odometer of the flightless dung beetle *Pachysoma*. We stayed at Kwessiegat, and this certainly turned out to be an ideal place to work from. All three Namib species of *Pachysoma* were found within 100 metres of the house on the dunes. Also, in the hot hours of the day when even the hardy beetles seek shade underground, we could sit on the veranda and observe the animals at the nearby waterhole.

Pachysoma denticolle is a small, orange and black beetle, less than 1 cm in length. These beetles were the stars of our research project, carrying on with the normal activity despite having as many as four different cameras pointing and three people watching them intently. *P. rotundigena* is a medium sized, black beetle while *P. rodriguesi* is a large beetle that runs very fast.

These unusual dung beetles feed mainly on the dry dung of large grazing mammals, but we also observed them collecting bird and lizard droppings. The two smaller species also frequently gather dry flowers, seeds and other plant material. They are able to feed on hard forage, unlike most other dung beetles that can only filter out fine food particles from soft dung.

Once they have found a promising food source, they dig a burrow several metres away and then repeatedly drag small loads of food, held with their hind legs, towards their new home. The task they face is a difficult one: with foraging distances up to 20 metres, very few landmarks to help them navigate and a heavy load to drag home across the hot and slippery sand, it is not likely that counting steps would be accurate enough for them to find their way home. So how does the odometer indung beetles work? Do they measure

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Pachysoma denticolle *dragging a gemsbok pellet.*

Pachysoma rotundigena *with a clump of dry plant material (detritus) on its way to its burrow.*

Photos: Hennie de Klerk

Pachysoma rodriguesi*: They were not very co-operative subjects for observation, running away as soon as they saw you. We still have to devise a way to observe their natural behaviour in future. Who knows what it may reveal!*

Photo: Hennie de Klerk

The providers: two gemsbok bulls measure their strength against each other. The gemsbok regularly walked (or ran) up the particular dune where we were working, and replenished the food source of the dung beetles. They probably mark their territories in this way and in the process sustain a large community of dung beetles.

(Continued from p13)

optic flow like honeybees? Or do they count their steps like desert ants and fiddler crabs?

To find out, we placed a small plastic ramp in the way of beetles walking to a food source. Once it had collected food, a beetle was transferred to a nearby test area where it immediately set out in what it "thought" was its home direction. When the beetle had reached its imaginary nest, it would make a conspicuous U-turn and start searching for the nest entrance. We used this turn relative to the release point to define the beetle's distance estimate.

What we found is that when we covered the ramp with sandpaper to provide an easy surface to walk on, the beetles indicated the correct distance to the nest. However, when we covered the ramp with a slippery acetate sheet instead, the beetles slipped while walking over it and indicated a much longer distance on the way back. The missed steps made them believe that they had walked much farther than they actually had!

Thus the study revealed, somewhat against our reasoning, that these beetles – like crabs and ants – use some kind of step counter to determine travel distance. How they adjust this estimate to correct for the many steps during which they naturally slip when they try to walk up a steep, sandy slope while dragging the heavy load of a gemsbok dung pellet, will be the focus of future projects. And a good reason to return to the Namib!

Acknowledgement: We would like to thank Mike and Ann Scott, Wardens of NamibRand for facilitating the research in the Reserve. The study was carried out by the University of Pretoria in association with the University of Lund, Sweden.

Clarke Scholtz and Jochen Smolka

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Celebrating vultures

BirdLife Partners around the world joined with raptor conservation and research organisations to celebrate International Vulture Awareness Day on 1 September 2012, with events and awareness raising taking place.

Vultures fulfil an extremely important ecological role. They keep the environment free of carcasses and waste, restrict the spread of diseases such as anthrax and botulism, and help control numbers of pests such as rats and feral dogs by reducing the food available to them. They are of cultural value to communities in Africa and Asia, and have important eco-tourism value.

However, vulture populations are in steep decline across the globe. In the Indian subcontinent, populations of three formerly very common species of vulture have declined by more than 97% as a result of consuming cattle carcasses contaminated with the veterinary drug diclofenac. In 2006, the governments of India, Pakistan and Nepal finally introduced a ban on the manufacture of diclofenac, and pharmaceutical firms are now encouraged to promote an alternative drug, meloxicam, which is proven to be "safe" for vultures. The manufacturing ban has had some success in reducing the drug's prevalence. Unfortunately, there is still no ban on the sale or use of the drug and the overall trend across South Asia remains one of continuing vulture declines.

In East Africa there have been mass vulture deaths associated with misuse of chemicals, huge population declines in West Africa due to habitat loss, and the disappearance of vultures from large areas of their former ranges in South Africa because of the continued use of vulture parts in traditional medicine and sorcery. Other threats include power line collisions and electrocutions, disturbance at breeding sites, drowning in farm reservoirs, direct persecution and declining food availability.

Jonathan C Eames

http://www.birdlife.org/community/2012/09/celebrating-vultures/?utm_source=rss&utm_medium=rss&utm_campaign=celebrating-vultures

Uplisting of African White-backed Vulture

In June 2012, BirdLife International announced the 2012 update of the IUCN Red List for birds. This is the first update since the 2008 *Threatened Birds of the World, a* comprehensive assessment of the status of the world's birds. Of the 10 064 bird species recognised by BirdLife International, the status/categories of 208 have changed. Approximately 13% of the world's birds are now listed as threatened

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Lappet-faced Vulture nest (tree in the centre), near Schafberg in 2012.

Photos: Ann Scott

Peter Bridgeford ringing a vulture with NamibRand staff in 2006.

Photos: N/a'an ku sê camera trap

Camera-trap images of Lappet-faced Vultures at Kalkpan, Aandstêr in 2011; note the three birds with yellow tags in the photograph below.

(Continued from p14)

(Critically Endangered, Endangered or Vulnerable) as compared to 12% in 2008. Another 880 (almost 9%) have been classified as Near-Threatened in 2012.

The status of three bird species in South Africa has deteriorated, and they were therefore uplisted. These include the White-backed Vulture *Gyps africanus*, the most widespread and common vulture in Africa, which has been uplisted by two categories: from Near-Threatened to Endangered. Although widespread, the species is currently undergoing a rapid decline in population numbers and faces similar threats to all the other African vultures. In East Africa, White-backed Vultures are primarily threatened by poisoning (particularly from the highly toxic pesticide carbofuran); whereas in southern Africa they are utilised for the muti trade (as they are perceived to have medicinal and psychological benefits); and the decline and possible extirpation in West Africa has been attributed to the trade in vulture parts for traditional "juju" practices. Other threats include the loss or reduced availability of carrion, electrocution by power lines and poisoning.

The other two species are Grey Crowned Crane *Balearica regulorum,* which has been uplisted from Vulnerable to Endangered, and Crowned Eagle *Stephanoaetus coronatus*, globally uplisted from Least Concern to Near-Threatened.

For more information on BirdLife South Africa's threatened species conservation, please contact Hanneline Smit at conservation@birdlife.org.za, website: www.birdlife.org.za.

Source: BirdLife South Africa

Vultures on NamibRand

NamibRand continues to be a safe haven for both Lappet-faced Vultures (Vulnerable in Namibia) and White-backed Vultures (Near-threatened in Namibia); both are also Globally Threatened. Recent sightings include a count of 100 Lappet-faced Vultures at Twee Pompe on Aandstêr on 28 November 2012 by Peter Woolfe. Unfortunately only one nest for this species was recorded in 2012, namely just north-east of Stone Circles near Schafberg (at 25 12.560S 15 58.422E) on 31 August 2012, while no nesting by White-backed Vultures has been recorded on the Reserve as yet.

We pay tribute to Peter Bridgeford and his intrepid ringing team of Vultures Namibia (www.vulturesnamibia.com), who have ringed/tagged 860 Lappet-faced Vultures since 1991 and done much to promote ongoing awareness and conservation of these magnificent and useful birds in Namibia and elsewhere. In September/October 2012, they ringed/tagged 69 of these birds in their Namib Naukluft National Park stronghold (mainly in the Ganab area), and 56 White-backed Vultures and three Lappet-faced Vultures on farms in Namibia. Vultures marked with these yellow plastic tags are picked up regularly on camera traps on NamibRand. Well done to the Team!

Ann Scott

Translocation of female cheetah and two cubs to NamibRand

In late 2011 a female cheetah and her two juvenile cubs were captured on a game-farm north of Windhoek due to significant springbok losses. The animals were subsequently brought to N/a'an ku sê Wildlife Sanctuary where they were held until a suitable release site could be found. The cheetahs were considered suitable for release because they had not shown any tendencies to prey on livestock.

Fortunately the recent expansion of NamibRand Nature Reserve to include Springbokvlakte and Saffier, owned by Mr John Bernstein, meant that there was now sufficient space to consider conducting an additional release onto the Reserve.

Talks between NamibRand and N/a'an ku sê swiftly developed into a working strategy which concluded in the translocation of the mother cheetah (designated N058) and her two cubs into the soft-release holding boma at Aandstêr Mountain on 13 July 2012.

During the next month the cheetahs were fed on whole springbok carcasses to simulate a natural diet, and also underwent aversion training: i.e. if the cheetahs approached the fence during daily monitoring, they were actively chased to instill a negative behavioural reinforcement to the presence of humans.

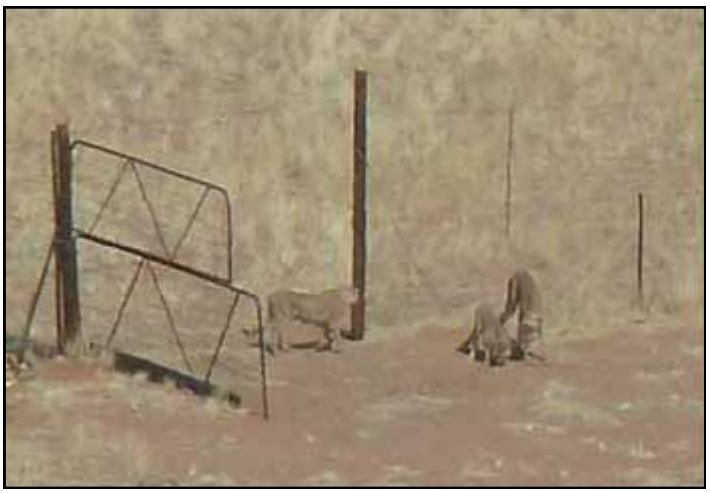
On 13 August 2012, the adult female was immobilised and fitted with a GPS tracking collar. She and her two cubs were subsequently released from the boma the following day.

Since their release the cheetahs have extensively explored NamibRand Nature Reserve and the surrounding areas, even venturing deep into the dunes of the Namib Naukluft Park. Their progress has been followed remotely on a daily basis via satellite position downloads. Researchers of N/a'an ku sê have also periodically undertaken ground tracking using VHF telemetry to achieve visual confirmation of the health and welfare of the group. Five sightings confirm that the cubs remain with their mother and all appear in excellent physical condition. Investigation of areas where GPS position data suggested sites of successful hunts established that the group have been preying on springbok and oryx. The total movement since their release spans a distance of 374.3km.

We would like to thank all the members and staff of NamibRand Nature Reserve, and especially Mr John Bernstein, for their combined dedication, enthusiasm and hard work in making this such a successful release. We look forward to the continued health of the cheetah population in the Namib and the opportunities it affords us all to learn and appreciate more about these animals.

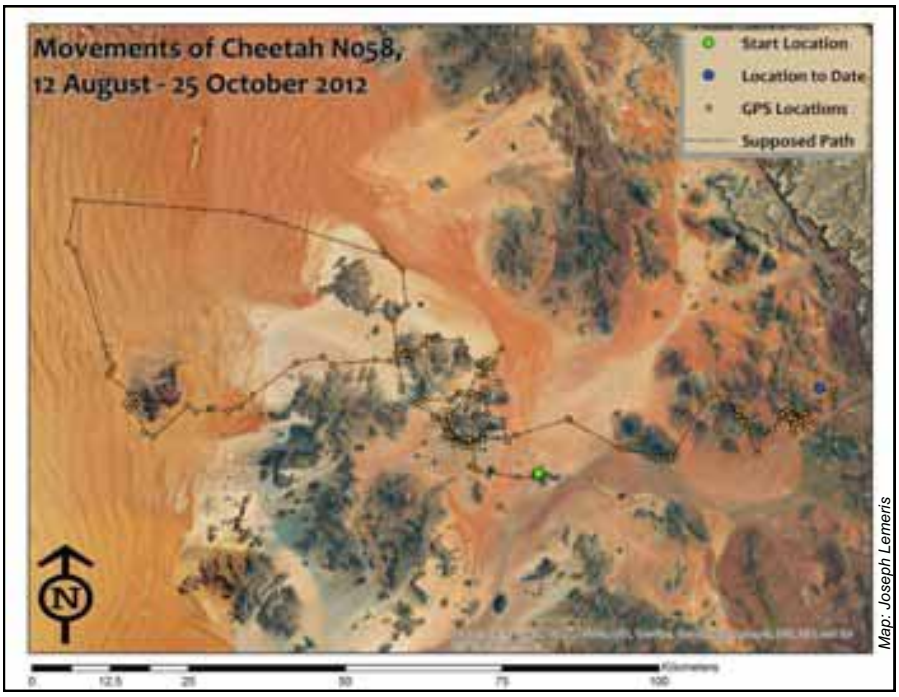
Stuart Munro

Female cheetah N058 being collared by Rudie van Vuuren, Stuart Munro and Alessandro Araldi.



Photos: Gemma Marshall

First taste of freedom for N058 and her two cubs on 14 August 2012.



Map: Joseph Lemeris

GPS downloads for female cheetah N058 from release (14 August 2012) until October 2012.

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Update on predator reintroductions

Summary of introductions

Here is a summary that the guides should find useful and can convey to interested guests.

These numbers include releases by both Cheetah Conservation Fund (CCF) and N/a'an ku sê. Number of reintroductions:

- 2008: 11 cheetahs + 1 leopard
- 2009: 7 cheetahs + 1 leopard
- 2010: 3 cheetahs
- 2011: none
- 2012: 3 cheetahs (+ 3 cheetahs at Aandstêr in August 2012; not included in this analysis)
- TOTAL: 24 (+3) cheetahs and 2 leopards

Of the re-introduced cheetahs, three females have successfully produced litters (one female has produced two litters already) and the leopard female produced one litter. The cheetah females produced a total of 11 known cubs that reached 12 months of age. These cheetahs bred as soon as 5 months after release and the leopard female after 7 months.

Both leopards survived for at least 18 months and settled into ranges that covered parts of NamibRand as well as adjacent properties. Both settled in remote mountain ranges.

Cheetah survival measured at 12 months was 71%. The main cause of mortality was spotted hyenas; one cheetah died from heat shock and another one fell off a rock and broke its spine. Interestingly, there were only three verified cases of conflict with farmers that involved released cheetahs.

All cheetahs released left the Reserve for prolonged periods and movements ranged up to 1,100km within 9 months after release. One of the males released in 2010 successfully traversed the Namib Desert twice in a west-east direction. Most movements were in the range of 350-500km during the first year though. The majority of cheetahs temporarily settled on properties in the vicinity of the Reserve and irregularly crossed through NamibRand again. The cheetahs (with two exceptions) did not show any permanent range establishment on or off the Reserve, but keep roaming at landscape scale.

Florian Weise

Update on the female cheetah of 2009

The Cheetah Conservation Fund (CCF) released a wild female cheetah along with her cubs into the NamibRand Nature Reserve in January 2009. Since that time—now for almost four years—we have closely monitored her movements using a satellite collar produced by the New Zealand-based company, Sirtrack (also see The Barking Gecko, September 2010).

In April 2009 she left the Reserve and, aside from a short period in January 2010, has been living successfully on land to the east of NamibRand ever since. It is clear that she maintains a large range, often crossing through multiple farms in the course of a few days; and she clearly prefers more mountainous terrain.

Map: Rob Thomson

On 28 November 2012 the female continued to remain within the boundaries of Nomtisas and following the course of the Usib River (see map above). She has crossed the main road a couple of times, and may have made a kill a little way north of it. She is currently 90 km north-east of NamibRand, 54 km north-north-west of Maltahöhe and 86 km south-west of Kalkrand on the B1 road.

Rob Thomson

Mountain zebra: new connections

between sub-populations in NamibRand

The main focus of the mountain zebra population in NamibRand is the Moringa Valley and its waterhole perched at the eastern end of the valley. This waterhole in the north-east of the Reserve has the largest number of mountain zebra visitors – 352 out of the total of 554 individuals identified so far in this study have been seen there over three years although not of course at the same time. But most, perhaps all, mountain zebra drink at a number of different water sources, and many of the 352 have also been photographed at other waterholes: 28% out of the 352 have been seen at the Porcupine waterhole 9 km to the south and 22% at Draaihoek a little further on. This cluster of three waterholes thus seems to be shared by a group of animals which, for the most part, have not been seen elsewhere in the Reserve. When not in NamibRand, these animals probably move to the east, into the Nubib mountain range and beyond. But while there are remarkably few records of animals from this group that move further afield, there are exceptions - two in fact. One of these animals has already been mentioned in a previous issue of The Barking Gecko, a young female also seen at Kuduwater on the eastern slopes of the Losberg in the south, which is 27 km from Moringa. This is NR173f, who was photographed in 2010 as a young foal in a breeding group at Kuduwater and who in 2011 had moved north and to a new range in and around the Moringa valley. No other members of this young female's natal group have been seen in the north-east, so she may have moved alone.

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Until recently, this young female was the only known link between the main north-eastern sub-population and mountain zebra elsewhere. But in the last few months another animal has made a similar long distance movement: NR536, a 2-3 year old who was first photographed on a property called Geluk to the north of the Reserve. From the available photographs I cannot yet sex this animal but it was seen at Geluk in June this year and at Moringa in August. The straight-line distance from the Geluk to Moringa waterholes is 22 km, but the actual distance travelled could be much greater. This movement must have involved travel across open grassland, something that mountain zebra will do occasionally although they often appear nervous and if disturbed generally run for the nearest high ground. A number of the animals in the social group with NR536 at Geluk in June were individually known but in spite of detailed searching none of these could be found in photographs close to the one containing NR536 at Moringa. The social group at Geluk seemed to be a bachelor group but one that consisted mainly of 2-3 yr olds and it contained at least one young female. At Moringa the animals seen nearby in the August photographs seemed to be a breeding group.

With further camera trapping more details will hopefully emerge but at present it seems that both of these animals moved on their own. This is not unusual for dispersal movements in this species. Mountain zebra breeding groups (sometimes called harem groups) consist of a large dominant male and up to four or five adult female with their young. All offspring born into these groups eventually leave to join other groups at around 1-3 years of age and these dispersal movements may function to avoid in-breeding depression. In the case of males the young animals generally join bachelor groups and start the long process of competing to achieve sufficiently high status to acquire their own breeding groups. Dispersing females may also join bachelor groups and when this happens they may meet a suitable male and leave together to start a new breeding group. If they take this route they generally become the dominant female in the group. Alternatively, they may join an existing breeding group but, while this may be quicker and the group better-established, if they do this they will probably be subordinate to the females already in the group and the cost is that subordinate females

Photo: Morris Gosling

All young mountain zebra disperse from their natal groups between one and three years of age, and research in NamibRand shows that these dispersal movements may be over 20 kms.

on average have lower breeding success than dominant females. NR173f and NR536 were at an age where they seem to be dispersing young and I hope that further information from camera trap photographs will show exactly where they fit into this overall pattern.

From the conservation viewpoint, such movements between "sub-populations" are potentially beneficial in terms of population viability. The increasing numbers of mountain zebra shown to be present in NamibRand by this study seem quite large but they are small in relation to the numbers that population geneticists would argue are needed to ensure long term genetic viability. Because of this, genetic exchange with other populations is essential and it is reassuring that there is at least some movement between the main concentration in the north-east of NamibRand (the Moringa/Porcupine/ Draaihoek area) and the mountain zebra living in both the south and the north-west.

I am grateful for the ongoing support and collaboration of Nils Odendaal, Ann and Mike Scott, Quintin Hartung and their colleagues at Keerweder, and to Denis Hesemans at Namib Sky Balloon Safaris on the farm Geluk. Thanks also go to the Directors of NamibRand for permission to carry out this work and to the Rufford Foundation and the Namibia Nature Foundation for financial and other support.

Morris Gosling

Photo: Holger Gruss

A rare sighting of a large bachelor group of mountain zebra crossing open plains in the northern part of the NamibRand Nature Reserve, south-east of the Sossusvlei Desert Lodge (SDL) airstrip near the C27 main road. The group was seen on 5 March 2012 and consists of 17 animals, eight of which have been identified using their unique stripe patterns. Of these, seven have also been photographed at Geluk, 12 km to the north-west, outside the Reserve. Another two have been seen at the SDL waterhole and two at the Hyena waterhole, both in the north-west of the Reserve.

Interesting sightings and photo gallery



*The magnificent common cluster fig (*Ficus sycomorus*) at the seep north-east of Boulders is heavy with fruit, with a carpet of fermenting figs on the ground—to the delight of Sociable Weavers, Red-headed Finches, Black-eyed Bulbuls, a Bokmakierie—and a large male baboon (Ann & Mike Scott).*



Left: The dancing white lady spider belongs to a large group of huntsmen spiders; the "dancing" refers to the drumming of its feet, used for communication with other spiders (Lars Anderson).
Centre and right: Green nymph (centre) photographed on the Chateau Plains, and adult Paracharilaus curvicollis*, one of only four species in a small family (Charilaidae) that is restricted to southern Africa (one species in N Africa). This species apparently occurs across Namibia and also in SA. The adults are winged, possibly males only. The hood over the back has a furrow running along it, with a ridge on each side; this distinguishes the family. All species of this small family, which is a near-endemic to Southern Africa, live in arid grasslands. This species will be a new family in the next edition of the field guide by Picker, Griffiths & Weaving. (Information: Mike Picker, photos Ann Scott [left] and Vere Ross-Gillespie [right]).*



Red-headed Finches (left) and Namaqua Sandgrouse (centre), photographed on Kumbis, south of NamibRand (Le Roux Van Schalkwyk).
Right: Can anyone help identify this mongoose-sized carcass, found in June 2012 by a Tok Tokkie guide in the dunes close to Schafsberg Camp and DDR (Barbara Wayrauch)?



Cape fox (left) and an unusual record of a leopard kill in a tree in the Namib (centre), also photographed on Kumbis (Le Roux Van Schalkwyk).
Right: Fresh cheetah kill next to the entrance road to Drifter's Desert Lodge on 12 July 2012 (Louis Fourie).

Walking in single file

Photo: Morris Gosling

A huge aggregation of red hartebeest makes its way past Ysterkop.

Photo: www.skyhawkphotography.com

Six plains zebra follow a well-worn path ...

Thank you

Many thanks to those of you who have contributed to this issue of The Barking Gecko by providing articles/ information:

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The Barking Gecko is your newsletter and, as always, we invite you to keep on sending us your contributions of news and views, short reports, sightings, artwork and photographs!

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Newsletter of the

NamibRand Nature Reserve

Editor:
Dr Ann Scott (Warden)
Reserve Office
PO Box 131
Maltahöhe, Namibia
Phone: +264-63-683 026
Email: warden@namibrand.org

Head Office
36 Bismarck Street
PO Box 40707
Windhoek, Namibia
Phone: +264-61-224 882
Email: info@namibrand.org
Website: www.namibrand.org

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