

THE BARKING GECKO

April 2024

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OWLS

ON MY DOORSTEP

GREETINGS FROM THE NORTH

TRIBUTES TO ACHIM & PETER

DARK & CLEAR SKIES

FAIRY CIRCLES

WOLWEDANS RURALREVIVE

NEWS @ NaDEET



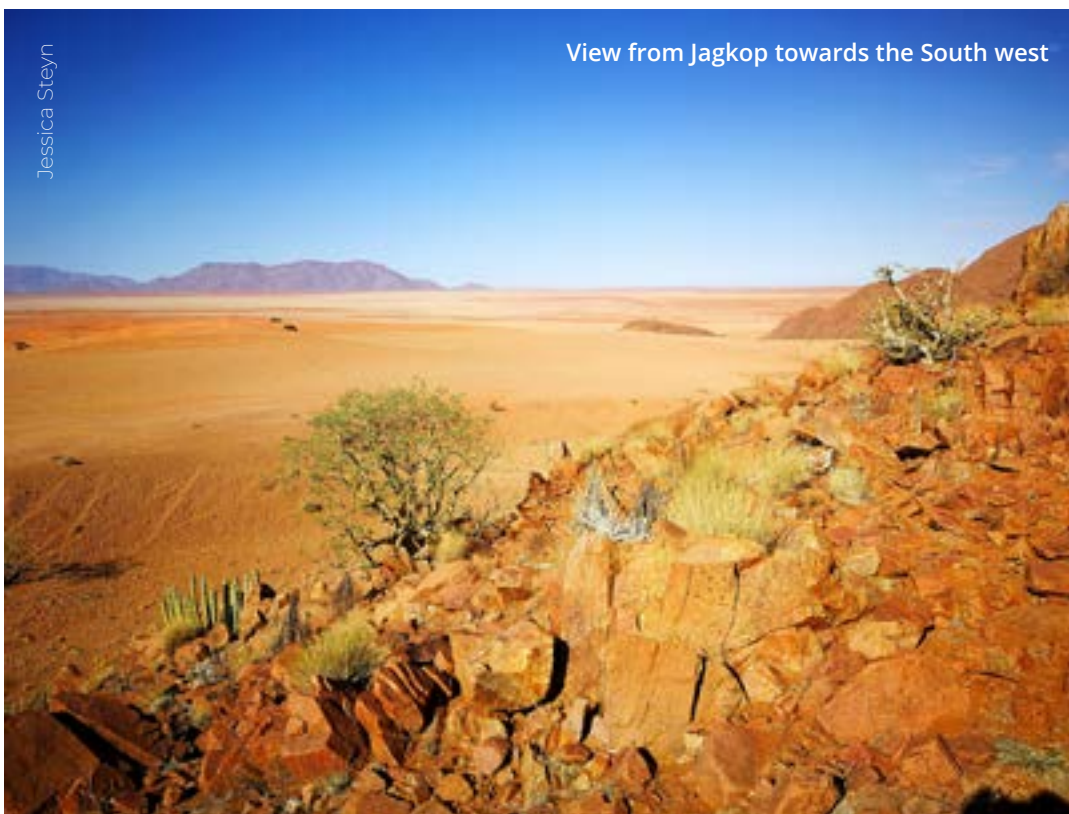
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Jessica Steyn

Sand dunes looking towards the Nubib Mountains



Jessica Steyn

View from Jagkop towards the South west



EDITOR'S INPUT

We hope everyone had an excellent start to 2024. We are all working hard and enjoying the new year so far. Tourism is on the rise and this is always a positive sign for the Reserve.

This edition of the Barking Gecko is full of the happenings on the Reserve, from our day to day activities and projects, including the completion of an approximately 10 km long border fence upgrade and repair and the improvement to crucial waterholes, as well as participation in an important national conservation workshop. Researchers have visited NamibRand to conduct expeditions in search of scorpions and photograph our

Dark Sky, while a new scientific paper on our fairy circles was published.

Unfortunately, NambiRand has only received scattered rainfall so far, although we hope more is to follow. Any amount of rain is appreciated. Luckily, the Namib-Naukluft Park received good rains and most animals have been able to move there to access grazing. On a more personal note, our son Dominic has been enjoying the wet dunes.

With four students interns on the team this year, we are keeping all hands busy with multiple projects. We enjoy every challenge that comes along and look forward to what the rest of the year will bring.

Since our last edition, we have lost two dear NamibRand friends and conservationists – Achim Lensen and Peter Wolfe. They will be truly missed.

Our partners in tourism and conservation, Wolwedans and Namib Sky Safaris are supporting local communities to improve their livelihoods with numerous projects, while NaDEET shares its successes and new endeavors. Other news, photographs and stories can be found in this edition's pages.

Enjoy reading!

Jessica Steyn



Losberg at sunset with rain



Dominic in the wet dunes

OWLS ON MY DOORSTEP

Christa D'Alton



Christa D'Alton

Being watched in the morning hours

As a new staff member living at the NaDEET Base on Die Duine, I am, and will probably always be, awed by the wildlife that comes and goes past my house. Of course, being passionate about nature and a keen photographer also helps. Two of my favourite subjects are the Spotted eagle owls (*Bubo africanus*) that live at the NaDEET Base. Their current home is the big old camelthorn (*Acacia erioloba*) next to the curio shop, and I often see them high up in the tree during the day. I also spot them early in the evening and morning at the waterhole, which is just on my doorstep.

I am often alerted to their presence by their calls to each other before the hunt in the evening or when they arrive home early in the morning. In the evening, they will fly one by one, low above the ground, nearly touching the sand, to the waterhole and meet there for a few moments. Sometimes, they drink water and at other times they sit there, turning their heads in all directions, probably scanning the area and deciding where to begin their hunt for the evening, only to suddenly leave, effortlessly and silently, as if they never existed.

Here are a few interesting facts about Spotted eagle-owls (*Bubo*

africanus):

- They are the smallest eagle owl, only 45 cm long and weighing between 454 and 907 grams.
 - They are the most common species of owl found in Southern Africa.
 - They live near human habitation.
 - Their prey consists of rodents, small mammals, birds, insects and reptiles.
 - Spotted eagle-owls are monogamous, but will take a new mate after losing a mate.
 - They make their nests on the ground, but will occupy windowsills, owl houses and other man-made structures.
- Breeding begins in July and continues to the first weeks of February.
 - The male brings food to the nest for the female until all the eggs have hatched.
 - Incubation lasts about 32 days.
 - The female only leaves the nest to feed on what the male has brought her.
 - Owlets leave the nest within five weeks and live on the ground for about 10 days before they can fly.
 - During this time, they mock-hunt, learning to catch small reptiles and insects. People often remove the owlets during this time, thinking they are hurt or abandoned.
 - The parents still support them and bring larger prey, like rodents, for them to feed on.
 - The owlets can fly from around seven weeks and stay with the parents for several more weeks.
 - Spotted eagle owls have a lifespan of about ten years.



Christa D'Alton

Morning sunlight shining through feathers

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Roberts Bird Guide, Second edition, September 2016. P.284.

MESSAGE FROM THE CEO

The first quarter of the year is over and much has been achieved at NamibRand. The team has been busy with projects, mentoring students and hosting research visitors. You can read all about these achievements and others in this edition of the Barking Gecko.

Namibia is a world leader when it comes to protecting terrestrial ecosystems. Almost 50% of our country's land is under some form of protected area management for conservation. NamibRand is one of the oldest and largest privately protected areas in Southern Africa and we are proud to be included as part of this protected area network.

In February, NamibRand attended a workshop on the co-development of the framework/mechanism and draft guidelines for OECMs (Other Effective Conservation Measures), held


in Swakopmund. The aim of the workshop was to develop a framework and guidelines for formally recognising OECMs in Namibia. The workshop was a collaborative effort between the Ministry of Environment, Forestry and Tourism (MEFT) and stakeholders from various conservation areas including conservancies, community forests, fisheries reserves, and other conservation areas, as well as privately protected areas, such as NamibRand. A multisectoral Technical Working Group (TWG) also provided support to the workshop.

The workshop discussed and collated recommendations from stakeholders, focusing on the formal recognition of OECMs in Namibia in alignment with Target 3 of the Kunming-Montreal Global Biodiversity Framework (KMGBF). This is a historic framework that

supports the achievement of the United Nations Sustainable Development Goals and builds on the Convention's previous Strategic Plans. It sets out an ambitious pathway to reach the global vision of a world living in harmony with nature by 2050. Among the Framework's key elements are four goals for 2050 and 23 targets for 2030.

Target 3 of the KMGBF seeks to "ensure and enable that by 2030 at least 30 per cent of terrestrial and inland water areas, and of marine and coastal areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through [...] protected areas and other effective area-based conservation measures [OECM]." The target also focuses on all landscapes, sustainable use and the rights of indigenous peoples

Jessica Steyn



Animals gather on the little bit of green grass at the foot of Jagkop.

and local communities.

NamibRand fits very well into the OECM category, especially as the Reserve has a variety of biodiversity and ecosystems, with some endemic species. Once the framework/mechanism and draft guidelines for OECM's in Namibia are finalised, we intend to register for this internationally recognised category.

The impacts of climate change are evident around the world with catastrophic climate events such as extreme temperatures, fires, droughts and floods becoming more frequent. After receiving some relief in the form of good rains in 2022 and 2023, to break a seven-year spell of drought and below average rainfall, the Reserve has unfortunately received very little rain. At Keerweder, we have only measured 8.63 mm for this

entire rainy season which is far below the mean annual rainfall of 70 mm. Thankfully, some isolated thundershowers, with enough rain to enable grass to grow, did occur in the larger landscape. As fences have been removed, wildlife is able to migrate to these places in order to find enough grazing to survive in the Namib.

Vast open landscapes are crucial to the survival of animals in the desert and we thank our colleagues and all those who came before us, for all their hard work in taking down fences, opening the ecosystem and giving this land back to nature.

It is with great sadness that we bid farewell to two of NamibRand's important personalities.

NamibRand's former Control

Warden, Achim Lenssen, passed away unexpectedly on 5 November 2023. Achim and his wife Ursi were stationed at Keerweder from 1998 until 2004. They were instrumental in rehabilitating the Reserve from a fractured landscape criss-crossed by fences and disused livestock farming infrastructure, to a contiguous and open landscape for wildlife as nature intended.

Peter Woolfe, our former friend and colleague who was stationed at Aandstêr from 2009 until 2019, passed away on 10 February 2024. We will miss Peter's passion and enthusiasm for nature, NamibRand and life. His raucous laugh will resonate in our memories forever.

NamibRand celebrates Achim and Peter's lives in two articles by Peter Bridgeford in this edition of the newsletter.



GREETINGS FROM THE NORTH

Jessica & Andre Steyn

NamibRand is currently hosting four natural resource management students from the Namibia University of Science and Technology (NUST) as part of their six-month long work-integrated learning. We hope to undertake a variety of projects with the help of these four students. Lecturers from NUST have already conducted a site visit to assess the students' progress and to help them develop a research project to be conducted at NamibRand.

The students have already assisted us to complete some projects. The waterhole at Boscia has been extended with a wide apron to withstand damage from animals. At Toekoms, a new 5,000 L tank was installed to replace the old 2,500 L tanks. Animals damaged the old tanks and they are unrepairable. A fence was also constructed around the tank to protect it. We are currently digging in the tyres on the runway as part of safety procedures required from the Civil Aviation Authority to protect landing aircraft.



Fallen quiver tree (left) and dried-up stem (right)

Dr Iris Veltman, a mobile veterinarian, visited Keerweder on 24 January. She conducted health checks and sterilised all of the staff member's pets to meet Reserve rules.

The annual dark sky report was submitted to the International Dark Sky Association and can be viewed at:

<https://darksky.app.box.com/s/xnjhq20fk9t8a7l0qduj58mj2r54tee7/folder/246696815823>

The Dark Sky readings are now conducted four times a year and the March recording went well. The students participated in and enjoyed the night drive, and learned about the different constellations from Jessica. This activity highlighted for students that conservation work, particularly in the field, takes place at all times of day or night. Dark Sky Week took place from 2 - 7 April and we promoted our beautiful sky with various posts across social media.

On a sadder note, the magnificent old quiver tree that stood in the Keerweder garden fell over. Over the past few months, branches have been breaking off. When the tree fell over, it could be seen that its stem had dried up and we assume it simply reached the end of its life.



Staff and students at work



Finished Boscia waterhole



Digging in the tyres on the airstrip



New water tank and fenced enclosure at Toekoms

We were all hoping for good rainfall this year, but unfortunately, it was very scattered. The mountain areas received the most. We all hope there will still be some more rain over the following months. Please see the table below for the 2024 rainfall figures.

Property	Rain gauge	January	February	March	Total
Kwessiegat	Kwessiegat House	0	0	3.5	3.5
Toskaan	Moringa	0	16	3	19
	Toskaan Borehole	0	30	6	36
	Porcupine	0	5	9	14
Draaihoek	Draaihoek House	0	10	6.8	16.8
	Bushmankoppie	0	4	1	5
Keerweder	Keerweder House	0	4	4.5	8.5
	Boscia	0	2	0	2
Jagkop	Jagkop	0	0	8	8
Verweg	Zebra Dam	0	1.5	0	1.5
	Verweg House	0	1	0	1
Toekoms	Toekoms House	0.5	8	1	9.5
	Kudu Water	0	10	10	20
Wolwedans	Kraal Junction	0	4	4	8
	Karl's Valley	0	2	2	4
	Wolwedans Village	0	0	9.8	9.8
Die Duine	Chateau	0	0	4	4
	Schafsberg	0	1	4	5
	DDR	0	0	2	2
	NaDEET Centre	0	0.4	0.8	1.2
	Die Duine House	0	0.6	5	5.6
Stellarine	Horseshoe Water	0	5	2	7
	Hideout House	0	20	3.5	23.5
	Twee Pompe	2	5	2	9
Aandster	Aandstêr House	3		1.6	4.6
	Kalkpomp	0	0	5	5
	Prosopis	2	0	5	7
	Grootpomp	0	0	10	10
	Satanskop	1	0	1	2
Springbokvlakte	Springbokvlakte House	0	0	3	3
	Two Pumps	0	0	5	5
	Four Tanks	0	0	6	6
Saffier	Aandster Water	0	0	6.2	6.2
	Excelsior Turnoff	0	0	7	7
	Saffier House	0	0	4	4
	Sonop Water	0	0	10.3	10.3
Dina	Dina Middle	0	0	3	3
	Dina South Reservoir	5	5	0	10
	Dina Border	0	0	3	3



In the mountains, a variety of plants have started to flower. The colours flow from white, pink and yellow to purple. All these different colours in the desert environment really make one appreciate the beauty of nature.

A Kunene shield cobra (*Aspidelaps lubricus cowlesi*) was captured in the vegetable garden at eerweder after its tracks were first spotted ten days prior to its capture. It was released at Bushmankoppie.



Kunene shield cobra (*Aspidelaps lubricus cowlesi*)

Staff working on the airstrip found a Karoo sand snake (*Psammophis notostictus*) hiding under one of the tyres, but left it in situ.



Karoo sand snake (*Psammophis notostictus*) on the airstrip

We were lucky enough to identify a bat-ear fox (*Otocyon megalotis*) den and installed a camera to observe their behaviour. Initially, the photos and video show their curiosity and shyness, but after a short time, they became accustomed to the camera.



Camera trap images of the bat-ear fox

The NUST students are enjoying their time on NamibRand and have provided the following feedback:

Kimberlene Sizuka: "It has been an honour to intern at NamibRand Nature Reserve and carry out my project on *Euphorbia* species at one the largest reserves in Southern Africa. I have the privilege to personally experience working and interacting with different cultures, taking part in different activities, and seeing different animals and plants that tourists would love to see. I have come to understand the importance of better reuse and recycling as part of management, which is very important for natural resources management. I had the opportunity to take part in the dark sky reading done to control or reduce light pollution on the Reserve. It has been beautiful to experience the magnificent attributes of the south-west Namib."

Paulinus Musimba: "I would like to share some of my experience with the ambiguous desert barking geckos. These geckos have adapted unique survival strategies, including the ability to shed their tails when under threat to escape from predators. They store fat at the base of their tails to endure long periods of scarcity in their arid habitats."

Martha lita "As an admirer of Namibia's landscapes and wildlife, my stay at NamibRand has been nothing short of an interesting experience. I have been on the Reserve for two months. However, the place never ceases to amaze me, especially

the wildlife. My journey in conservation began with a deep appreciation for nature. I have loved animals since I could remember, and watching them on Nat Geo Wild has always been my favourite activity. One of the shows I loved watching was 'Snakes in the City,' although every time I would actually see a snake in person, I would get the fright of my life. I am grateful for the opportunity to intern at NamibRand. The team has been accommodating in answering my questions and sharing their knowledge. I hope to learn and experience more during my remaining time."

Jeremia Simon: "I would like to share my experience at NamibRand Nature Reserve. My weekends at the Toekoms house have been a symphony of avian wonders. The intricate nest of sociable weavers embellishes the landscape, showcasing their marvellous architectural art, while the melodious calls of Korhaans fill the air, adding rhythm to the calm desert atmosphere, making every moment a memorable and enchanting experience."



A downpour at the Ohrongo waterhole



NUST students Martha lita, Kimberlene Sizuka, Jeremia Simon and Paulinus Musimba



Students conducting research on the diversity and abundance of *Euphorbia* species



Cloud cover over the Nubib Mountains



Rain shower over the Nubib Mountains



The road at the Ohrongo waterhole underwater after the downpour



Barleria lancifolia



Kissenia capensis



Sarcocaulon marlothii



Newly paved entrance to the Aandstêr house



Tharina and Lorenzo with the Hauchab Mountains in the background

GREETINGS FROM THE SOUTH

Martin Verwey

In the South of the Reserve we are still patiently waiting for the rain. One can tell by the animals' condition that they are also starting to struggle. There is still a little bit of grazing available to keep the wildlife going. Nevertheless, we continue to hope for more rain. Although the grazing is dwindling, we are seeing springbok lambs, oryx calves and zebra foals. The snakes are also active. In the last few months at Aandstêr, we captured three Namib sand

snakes (*Psammophis namibensis*), two Cape coral cobras (*Aspidelaps lubricus*), three horned adders (*Bitis caudalis*) and two Cape cobras (*Naja nivea*). Thanks to the snake training course last year, all the snakes were safely captured and relocated.

With all our planned work for the year completed in December, it was time to do some work around the Aandstêr homestead. 42 m² of interlock bricks were laid to minimize sand blowing into

the house. We also planted some new plants and trees.

From 13 - 16 January, Chantal and I had the privilege of participating in the scorpion expedition in the Uri-Hauchab and Awasi Mountains in the Namib-Naukluft Park. The team was made up of Lorenzo Prendini, a scorpion expert focused on researching the systematics, biogeography and evolution of scorpions, Tharina Bird, an expert on solifuges or



Martin, John, Tharina and Lorenzo discussing the best route through the dunes



Lorenzo in search of a scorpion



The last beautiful sunset of the trip at the foot of the Awasi Mountains

red Romans, and John Irish, an entomologist and the team leader. NamibRand provided support for the expedition with a backup vehicle and we learned a lot about scorpions and solifuges. After a few late nights climbing mountains with blue florescent lamps (UV light) looking for scorpions and checking the traps that had been set, Lorenzo collected specimens of the *Hadogenes lawrencei* scorpion,

and Tharina collected samples of several solifuges and other insects. We also took photos of plants we found in the area including *Cleome angutifolia* subsp. *diandra*, *Jamesbrittenia maxi*, *Sericocoma heterochiton* and *Euphorbia lignosa*.

After almost a year of hard work, the border fence between Wolwedans and Wêreldend is repaired. NamibRand would like to

thank ProNamib for their financial and logistical support, without which the project would not have been possible. The repaired fence will make a big difference in the number of animals leaving the safety of the Reserve.

With the red sand in our shoes, the Namib remains an enchanting place to live and work.



Horned adder (*Bitis caudalis*)

This horned adder was found in the vegetable garden at Aandstêr. The horned adder is venomous. Smaller horned adders like to feast on small lizards, geckos, skinks, etc. The larger ones prefer to eat small rodents and birds.



Namib sand snake (*Psammophis namibensis*)

The Namib sand snake was also caught in the vegetable garden at Aandstêr. Sand snakes are mildly venomous and they are not a threat to humans. They mainly eat lizards and small rodents.



Cape cobra (*Naja nivea*)



Thanks to the snake-catching training, Martin and Ruben safely caught the cobra. The Cape cobra, also called the yellow cobra, is a highly venomous snake. They prefer to eat mice, but will also eat birds, lizards, snakes and eggs.



Cape coral snake (*Aspidelaps lubricus*)



The Cape Coral snake is sometimes also called the coral shield cobra. Its venom is neurotoxic. The snake eats small mammals like rats and mice and reptiles like lizards.

GREETINGS FROM THE SOUTH CONTD.



Ringwood pods of a *Maerua schinzii*



Jamesbrittenia maxii at the foot of the Uri-Hauchab Mountain



Cleome angustifolia subsp. *diandra* on the Uri-Hauchab Mountain



Euphorbia lignosa on the Uri-Hauchab Mountains



Sericocoma heterochiton on the Uri-Hauchab Mountains

NAMIBRAND FOOTBALL TEAM PARTICIPATES IN TOURNAMENT

Jessica Steyn

Over the weekend of 22– 23 March, Namibia Wildlife Resorts (NWR) organised a soccer tournament at Sesriem. Seven teams entered the tournament. A mixed team of staff from the NamibRand joined and participated in the tournament. The first match the NamibRand team played was against the Solitare team, which stood 1 - 1 at the end, but the NamibRand team won on penalties.

Their second match against the NWR team did not go as well as the first. The final score was 0 - 0, but the NWR team won on penalties. After all other matches were played, NamibRand made it to the finals with one win.

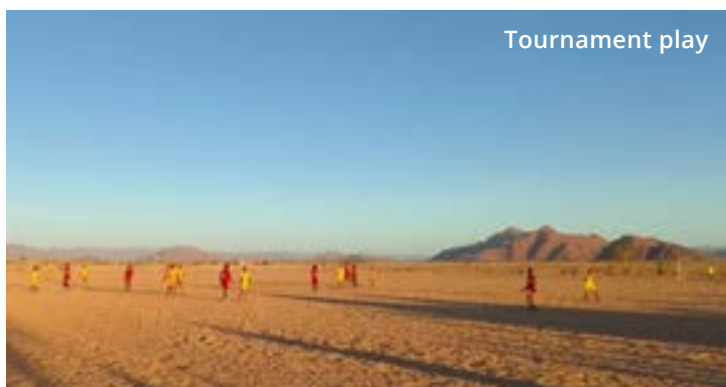
This final game was played on the afternoon of 23 March against the team from Sossovlei Lodge. It was a very intense game. Both teams had strong candidates playing, and the

end result was 1 - 1. Unfortunately, the Sossovlei team won the penalties, and the NamibRand team took 2nd place.

Still, we are very proud that our team took 2nd place out of seven teams. Most of the team members had never played together before, but were still able to do so well.



Standing: Ensley Simon, Pieter Tsaobeb, Paul Hendricks, Fritz Tsaobeb, Riaan Isaack, Marius Tsaobeb, Elvis Brandt, Willem Hanse, Ramos van Witstrazen, Japu Vleermuis, Moses Hanse
Kneeling: Elton Vries, Abraham Tsaobeb



TRIBUTES TO ACHIM & PETER

Peter Bridgeford

These tributes to Achim Lenssen and Peter Woolfe are from the book "Conservation and Tourism in Namibia: The Early Days" by Peter Bridgeford which will be published later this year by the Namibia Scientific Society in Windhoek.

Achim Lenssen

Joachim Lenssen was born to parents who were both born in South West Africa on 31 January 1945. His schooling began in Swakopmund and finished with matric in Cape Town. He studied geology at the University of Cape Town from 1964 to 1967 and then did a practical course in conservation at the Silvermine Nature Reserve.

In 1970, at 25 years of age, he started his conservation career at the Gobabeb Research Station on the banks



Achim Lenssen

of the Kuiseb River in the Namib. In 1972, he was promoted and transferred to the game capture unit, stationed in Windhoek. Some of his many adventures and photos were published in Conservation Pioneers in Namibia in 2018. His many photos of those hard, but satisfying days have been used in stories by other colleagues. As if working with dangerous animals was not enough, he embarked on another project when he married Ursula Gaugler in 1975.

In 1980, Achim became head of the newly proclaimed Namib-Naukluft Park, then and still today, the largest national park in Namibia. From his station at Ganab, at the foot of the foot of a huge granite inselberg, he controlled the area between the Swakop River and the Aus/Lüderitz road until 1998 when he resigned. During his 18 years in the park, he oversaw many development projects. These included the fencing of the park

border from Sesriem to Aus; the establishment of a hiking trail in the Tinkas area; the eight-day hiking trail in the Naukluft Mountains; the 4 X 4 Trail to the Naukluft plateau; developing new campsites; the cleaning of the mining rubble at Meob; pioneering routes through the Namib Sand Sea; and the day-to-day management of the huge park. Law enforcement in the park, with several public roads through it, made control difficult, however, patrols by the staff kept poaching to a minimum. In 1984, Achim and staff cleaned up on the western park border after the military conducted training exercises, leaving piles of rubbish and unexploded ordinance. He lost his right hand after a practice grenade exploded when he picked it up. However, having one hand did not slow him down and he continued development work and even still rode his old BMW motorcycle that he repaired and



Achim Lenssen

serviced himself. He could drive his Ford F250 better in the dunes than his colleagues with two hands.

In 1998 he resigned to become control warden of the NamibRand Nature Reserve, the largest private nature reserve in Southern Africa. He retired from active duty in 2004 and moved to Swakopmund where he built his own house on a smallholding along the Swakop River. For a while, he was active as a tour guide in the Sandwich Harbour area. He leaves his wife Ursula, two daughters and four grandchildren.

Achim died on Sunday 5 November 2023 from a heart attack. May he rest in peace.



Franzi Keresztesi & Peter Woolfe

Peter Woolfe

Peter was born in 1955 in Peru and grew up high in the Andes. He started schooling in Arizona and then continued in England. After finishing school in 1973, he went to visit his father, who was managing the copper mine near Tsumeb, in what was then South West Africa.

After studying geology at the University of Stellenbosch in South Africa, Peter undertook a lot of field work thorough Namibia for the Tsumeb Corporation. He worked in Kaokoland, the Otavi Valley, the Khomas Hochland and the mineral rich Erongo Region. Peter said that, fortunately, depressed

mineral prices led to his retrenchment from geology work and a new career. He worked in Zimbabwe as a canoe guide on the Zambezi River. It was here that he started working as an overland guide for Drifters, driving trucks from East Africa to Southern Africa - visiting Zimbabwe, Mozambique, South Africa and Namibia. It was a big learning curve, with many new skills to master, which he did successfully. Eventually, he left overland guiding and worked on the farm Excelsior, purchased by Drifters. He developed the property for the company, building a campsite and later a lodge.

In 2007, Peter took another big step and married Franziska

Keresztesi, after meeting her at the lily pan north of Maltahöhe. Peter always said he was the only person to go to the pan to look at the lilies and take home a rose. Peter worked for eleven years on Excelsior and then in 2010, he and Franziska moved to NamibRand Nature Reserve and were based at Aandstêr.

Peter and Franzi spent many happy, productive years at NamibRand and he was involved in game management, fighting the occasional grass fire and keeping the border fences in a good condition. The supply of water was one of the major tasks on this huge reserve.

In 2011, Franziska inherited her brother farm, Nutupsdrift, in the Maltahöhe district. For eight years Peter remained working on NamibRand while Fransiska managed the farm.

In 2018, Peter became ill and had to retire, moving to the farm. Life on the farm was challenging as well, drought was a never-ending battle and livestock was stolen. During the the COVID-19 pandemic, Peter became blind for a year until he received eye surgery and new lenses. Despite his blindness, shortness of breath and pain,

he always remained positive and hopeful. In 2022, Fransiska and Peter put the farm on the market and started planning their move to Swakopmund.

In August 2023 they moved to Swakopmund. They were happy there in their new life, however, Peter died suddenly on 3 February 2024 at the age of 68.

Peter dearly loved the Namib Desert and the NamibRand Nature Reserve. The remoteness, the dunes, the camelthorns and all the creatures living there and their incredible ability to survive were magic to him. He was grateful for living, working and contributing to conservation in Namibia. May he rest in peace.



Peter Woolfe

ARACHNOLOGICAL EXPEDITION TO THE CENTRAL NAMIB INSELBERGS

Lorenzo Prendini and Tharina Bird

As part of a country-wide survey of Namibia's arachnids, an expedition was undertaken to the inselbergs of the Central Namib from 12 - 16 January 2024. This was the first scientific expedition to the area since the early 1980s. The team, led by Dr Lorenzo Prendini of the American Museum of Natural History in New York, included Dr Tharina Bird of the Ditsong National Museum of Natural History (formerly Transvaal Museum) in Pretoria, Dr John Irish of the National Museum of Namibia in Windhoek, and Martin and Chantelle Verwey of the NamibRand Nature Reserve.

The convoy departed from Aandstêr on NamibRand and visited the Uri-Hauchab, Hauchab and Awasib mountains in the Namib-Naukluft National Park before returning to Aandstêr. In addition to sampling the rocky inselbergs, the trip's primary focus was also to sample the surrounding dunes and gravel plains. Three families, four genera and eleven species of scorpions, and two families, four genera and five species of Solifugae (romans, solifuges, sunspiders) were recorded.

One of the highlights was the rediscovery of *Hadogenes lawrencei*, a flat rock scorpion endemic to the inselbergs. This unusual species, described by

the late Dr Gerald Newlands (formerly of the Transvaal Museum) in 1972, was last collected in 1982, making this the first time it has been seen in over 40 years.

The solifuges collected during the expedition are the only records of this arachnid order from the Uri-Hauchab and Hauchab Mountains, aside from two immature specimens of the family Solpugidae collected by the late Wulf Haacke (formerly of the Transvaal Museum) in 1969.



Lorenzo finding a scorpion



From r to l: Dr Lorenzo Prendini, American Museum of Natural History; Dr Tharina Bird, DITSONG Museums of South Africa; Dr John Irish, Namibia Biodiversity Database National Museum of Namibia, and Chantell and Martin Verwey, NamibRand Nature Reserve



Tharina Bird

Hadogenes lawrencei



Tharina Bird

Blossia species



Tharina Bird

Opisththalmus adustus



Tharina Bird



Various landscapes of the area

NAMIB SKY COMMUNITY

Mariette Mukamana

Over the last couple of decades, the local Sossusvlei area community has been rapidly growing, and the need for education and other services has increased. The Namib Sky Community Trust was founded in 2012 to fill this gap. The trust is focused on improving the lives of our beloved Sossusvlei community through education, economic empowerment and sustainability.

At the heart of our project is our school, the Namib Sky Community School, which provides free education, nutrition, transport and uniforms to the children in our community. To ensure the smooth running of the school, fundraising continues throughout the year, and as time goes on, we are exploring ways to increase our financial self-reliance. A combined desire to finance the school and the belief that everyone deserves a chance to thrive while contributing to their community was the impetus for the birth of Namib Sewing.

Namib Sewing is a centre/workshop under the Namib Sky Community Trust that equips individuals with practical skills. Namib Sewing empowers the community with the tools and knowledge to create beautiful products that can be sold to generate income for themselves and their families. The Trust pays the individuals for their work and then markets and supplies the items to retailers. The profits from sales throughout Namibia, mainly through tour operators, and some overseas sales, are then reinvested into the school, which assists with the Trust's goal to ensure education remains accessible at the only school in the area. This initiative provides participants with the opportunity to learn valuable sewing skills, access materials and utilise the sewing machines in our workshop, all free of charge. The project not only enables individuals to generate income, but also plays a vital role in the financial sustainability of our free community school.

Namib Sewing has become a hub of creativity and collaboration, where participants come together to learn,



Elsie, a mother of two, is captured in the Namib Sewing workshop, diligently creating income for her family



A Grade 3 learner proudly holds a completed globe puzzle, showcasing her learning in a lesson on the environment and Earth's resources



share ideas and support one another. Some of our standout products include our brightly coloured wildlife range, The Bag and our Funky Scrunchies. Meticulously crafted with attention to detail, these items bring a touch of Africa to any outfit, home or playroom.



NamibSky Community Trust

The vibrant colours and intricate patterns are typical of the traditional African Shweshwe fabric. Each product is a story woven with love and dedication and serves as a beautiful embodiment of the African soul.



Collage right: Various items made by the NamibSky Community

DARK AND CLEAR SKIES

ON NAMIBRAND

Jeff Dai

Driving through the desert in southern Namibia, we kick up a lot of dust. Apart from the landscape and the clear sky, a few animals appear from time to time. Our destination is the NamibRand Family Hideout, which offers farmhouse accommodation and camping on the NamibRand Nature Reserve.

This place attracts me and pulls me all the way from China, on the other side of the world. The NamibRand Nature Reserve in Namibia boasts more than breathtaking desert landscapes and fascinating wildlife. It holds a paradise for stargazers from around the world. NamibRand was recognized as a Gold Tier International Dark Sky Reserve by DarkSky International in 2012, the first

one in Africa and the first in any developing nation. It lies in one of the naturally darkest, yet accessible, places on Earth.

The NamibRand Nature Reserve lies in Namibia's remote South and has an arid climate. Far from the light pollution of cities, NamibRand offers an unobstructed view of the cosmos. The air is exceptionally transparent with minimal atmospheric moisture, allowing starlight to reach your eyes with unparalleled clarity. As the night falls, stars shimmer like a sea of scattered diamonds in this pristine environment. At the same time, the Milky Way stretches majestically across the canvas of the night sky, a luminous band unlike anything witnessed in light-polluted areas.



Jeff Dai

Complete Milky Way on the horizon

The absence of light pollution is a key that unlocks a treasure trove of celestial wonders. Gazing upwards, the naked eye can discern details typically hidden from view in most populated regions.

I have visited many dark skies throughout the world in the last decade, including the Atacama Desert in Chile, National Parks in the western United States and the Himalayas in Tibet and China. However, the view on the NamibRand Nature Reserve is truly unique. It was the first time I was able to see the faint colour yellow in the centre of the Milky Way galaxy. I tried to adapt to the darkness without using any artificial light, but it was so dark and easy to get lost without a torch to guide me. I had to light a candle in the living room to create a little bit of artificial light, so that I wouldn't get lost when I went out to take photographs. The stars were so bright that the starlight illuminated my shadow. This is the first time in my life that I have witnessed this. Even though I am an experienced astrophotographer, the darkness of this place was a little scary for me.

The night sky in the southern hemisphere is spectacular. The Milky Way stretches brightly across the sky. The Southern Cross (Crux), the great Carina Nebulae, and the small and large Magellanic Clouds highlight the view. An unusual triangle of light is also visible after sunset and before dawn. This is zodiacal light – light which is reflected from interplanetary dust particles.

There is a small waterhole just 50 m from the Hideout's veranda. It attracts much birdlife, and oryx, springbok, zebra, bat-eared fox, porcupine, and other wildlife during the day. It also provides endless opportunities for photography by night. The celestial wonders were well reflected in the calm waters. I set up a camera by the water and filmed for the whole night. I was lucky enough to capture an oryx drinking water under the stars.

The beauty of the night sky deeply attracts me and I respect the efforts made by the NamibRand Nature Reserve. The Reserve recognizes the importance and the value of keeping the night sky dark. If not managed correctly, artificial light could have negative effects on plant species, and nocturnal and diurnal animal species, by causing habitat and behavioural changes and impacts.

Jeff Dai is a member of Dark Sky Beijing and the national coordinator of Astronomers Without Borders and The World at Night (TWAN) project. Jeff seeks unexplored night scenes, from the remote wilderness of the Himalayas to the still pristine night sky above cultural heritage sites. Jeff's photos have been published in China's major media outlets, such as Xinhua News Agency and People's Daily, and in international sources including NASA, National Geographic, Proceeding of the National Academy of Sciences (PNAS), and Nature magazine. Jeff is also a dark sky advocate with the International Dark Sky Association, trying to preserve the remaining natural skies in his home country.



The Family Hideout House under the Milky Way



Oryx drinking under the night sky



The Milky Way reflected in the Family Hideout waterhole



Stephan Getzin

PLANT COMPETITION FOR WATER CAUSES FAIRY CIRCLES

TOPSOIL ACTS AS A “DEATH ZONE” FOR FRESH GRASS IN THE CIRCLES

Dr. Stephan Getzin

Namibia’s legendary fairy circles are mysterious, circular, bare patches which occur in the dry grasslands on the edge of the Namib Desert. Their formation has been researched for decades and has recently been the subject of much debate. With extensive fieldwork between 2020 and 2024, our multinational team investigated how freshly germinated grass dies inside the fairy circle. Our results show that the grass withers due to a lack of water inside the fairy circle. The topsoil, which comprises the top 10 to 12 centimetres of the soil, acts as a kind of “death zone” in which fresh grass cannot survive for long. The new grass dies between 10 and 20 days after the rain. The fact that the grass shows no signs of termite damage disproves a competing

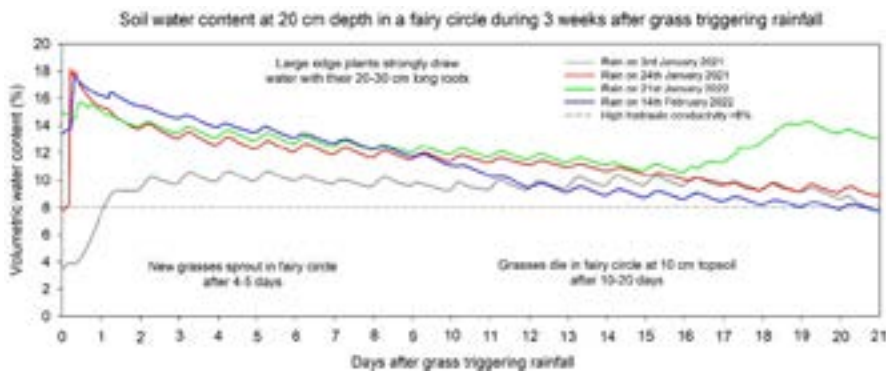
theory. The latest results of this study were published in the *Perspectives in Plant Ecology, Evolution and Systematics (PPEES)* journal in March 2024. Please see the end of the article for the reference and links.

This study, funded by the German Research Foundation, took several hundred measurements of soil moisture during or after the rainy seasons, using a mobile soil moisture sensor with 12 cm and 20 cm long rods. Additionally, we continuously recorded soil moisture on NamibRand at a depth of 20 cm every 30 minutes. These data loggers were installed in February 2020. We were able to benefit from the good rainfall seasons in 2021 and 2022 to assess in how far the active growth of new grasses modifies



Stephan Getzin

Dr. Stephan Getzin downloading soil moisture data in March 2024. These data loggers have continuously recorded the soil moisture within and around the fairy circles every 30 minutes over the past four years.



Four typical grass-triggering rainfall events on NamibRand Nature Reserve, demonstrating that soil moisture at a depth of 20 cm was always above the 8% threshold during the active growth and death phase of the grasses. This enables long-distance soil water diffusion and plants can draw water from the fairy circle.

the soil water distribution within and around the fairy circles.

Our data shows that the upper topsoil is very susceptible to drying out. During and after the rainy season, the soil moisture in the topsoil is three to four times lower than the soil at a depth of around 20 cm. In addition, the topsoil is significantly drier within the fairy circle than outside during the period of grass growth after ample rainfall. Under these conditions, freshly germinated grasses cannot survive in the fairy circle. They dry out because they cannot reach the deeper, more moist layers of soil with their roots, which are on average, only 10 cm long. In contrast, the large, perennial clumps of grass that grow at the edge of the fairy circle benefit from being able to access the soil water to a depth of 20 to 30 cm and below. These clumps of grass quickly turn green and produce new long leaves a few days after the rain. With their well-developed root system, these clumps of grass soak up the water particularly well – at a time when the new grasses within the fairy circle just start to germinate and their tiny leaves appear on the surface. After the rain, the

strong edge plants have a huge competitive advantage over the freshly germinated grasses in the fairy circle. The new grass only loses a small amount of water via transpiration from its small leaves, resulting in insufficient “suction power” to pull new water from deeper soil layers.

The measurement data also show that the hydraulic conductivity of the soil water is high in the first 20 days after the rain, particularly in the upper soil, and decreases

with depth. In these sandy substrates, the ability of water to move horizontally and vertically is high above a volumetric moisture content of 8%. Our data show that the soil moisture at 20 cm depth always ranged between 8% to 18% after four typical rainfall events at Jagkop. After rainfall is the biologically active time period when new grasses germinate within the fairy circle (four to five days) and when the large edge clumps of grass strongly pull water. The new grasses within the circles then die between 10 to 20 days after rainfall. Due to the high hydraulic conductivity, the clumps of grass along the circle’s edge primarily draw water from the top 10 to 20 cm of the soil and thereby cause the death of the new grass in the fairy circle. Continuous soil moisture measurements over several years support this conclusion. The soil water in the fairy circle only decreases noticeably and quickly with the strengthening and regrowth of the surrounding grass after rain. This testifies to the basic function of the fairy circles as



Small dead grass plant from a fairy circle 19 days after the rain. The root does not reach the more moist soil layers below the “death zone” and because of the low transpiration from its spindly leaves, the plant cannot “suck” more moisture from the soil.



With their established roots at a depth of 20 cm to 30 cm, the large edge plants are able to better suck up the soil water in the fairy circle, leaving it dry and then bare of fresh grass.

water sources for the drought-stressed grass of the Namib. The round shape of the fairy circles is formed by the grass itself, as this creates the maximum supply of soil water. A circle has the smallest circumference-to-area ratio, hence a minimum number of individual grasses can share the water from the interior of the fairy circle. This self-organisation can be described as “swarm intelligence.” This is a systematic adaptation to a lack of resources in arid regions. In fact, circular growth of vegetation is a common phenomenon in the Namib. We identified around a dozen grass and forb species that grow in a ring-like shape. These grass rings are currently under investigation by our team under a new research project.

In our new *PPEES* paper, myself and my Israeli colleague, Dr Hezi Yizhag, also comment on the theory that termites shorten the roots of fresh grass in the

fairy circle by feeding on them, causing the new grass to die. In an extensive discussion of the publications on the sand termite theory, we show that so far, not a single field study with systematic measurement data on the root length of dying grasses has shown that termite feeding on the roots of newly germinated grasses create the Namib fairy circles. In contrast, our systematic measurement data show that the young grasses, when they initially die within fairy circles, have a root length that is equal or even longer than that of the healthy matrix grasses outside of the circles, which is contrary to termite herbivory. However, because the topsoil within the fairy circle loses moisture faster than the topsoil in the matrix, the grasses inside the fairy circles quickly desiccate and die after rainfall, while the healthy matrix grasses can continue to grow, which enables them to reach the deeper soil layers with more moisture.



Soil moisture measurements during the rainy season with 12 cm and 20 cm long metal rods revealed that the topsoil is significantly drier inside the fairy circles as compared to the matrix outside. The young grasses die inside the circles because with shorter roots (10 cm long), they cannot utilise the deeper, more moist soil layers.

I have been studying fairy circles since 2000 and all my research findings are now summarised on a new website at www.fairy-circles.info.

Original publication: Stephan Getzin & Hezi Yizhaq (2024) Desiccation of undamaged grasses in the topsoil causes Namibia's fairy circles – Response to Jürgens & Gröngröft (2023). *Perspectives in Plant Ecology, Evolution and Systematics*, 63, 125780. DOI: <https://doi.org/10.1016/j.ppees.2024.125780>

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A typical fairy circle near Kamberg in the Namib-Naukluft Park, which the researchers investigated during the 2024 rainy season. The clumps of grass – up to 80 cm high – can be seen at the edge of the fairy circle. These clumps use the rainfall first and have an immense competitive advantage due to their size.



NEWS@NADEET

Viktorija Keding

Teach for ESD

The NaDEET professional development programme for teachers, Teach for ESD, has commenced for 2024-2025 with six workshops held at NaDEET Centre from the beginning of February to the middle of March. The two-year programme caters for a total of 168 teachers, representing six schools per region, from all 14 regions in the country. Teachers were selected based on their interest and experience in environmental education and education for

sustainable development. In addition, teachers needed to apply in teams to facilitate activity implementation. We are grateful to the in-kind support of the Ministry of Education, Arts and Culture and to our donors, as we work together to improve teaching and learning in Namibian schools.

The week-long programme was aimed at introducing participants to the concept of education for sustainable development (ESD). This was done through NaDEET's unique approach to hands-

on practical sustainable living activities, together with theory on ESD. The teachers each received the NaDEET Teach for ESD Toolkit which is the foundation for their two-year course. In addition, the participants explored NaDEET Base and our new information centre. The opportunity to spend time on the NamibRand Nature Reserve, learning about its unique biodiversity and landscapes, was a highlight for many participants. A key component of the programme focuses on fostering a love for nature and strong environmental ethics.

University Groups visit NaDEET Centre

In March, NaDEET also had the pleasure of hosting two university groups from Germany. The Georg-August University from Göttingen focused on learning about NaDEET's approach to sustainability, Namibian environmental issues and solutions, such as NamibRand's approach to conservation. The following weekend, the Brandenburg University visited for a course focused on ecology with one of the highlights being a search for fairy circles near the Horseshoe Mountain. Both groups truly enjoyed their visit and appreciated experiencing solar cooked vegan food for the first time.



The new NaDEET Urban Sustainability Centre

NaDEET Urban Sustainability Centre

The NaDEET Urban Sustainability Centre in Swakopmund has moved to a new location. After an uncertain future due to the need to relocate from our previous premises, the ProNamib Conservation Trust has provided NaDEET with a long-term home. The Trust purchased a house in Swakopmund and it is currently being converted into the new and improved Urban Sustainability Centre on the ground floor and the NaDEET Head Office upstairs. Watch this space for more information.

Please visit our website for more information about the Teach for ESD programme as well as our funding needs for the Urban Sustainability Centre renovation project: www.nadeet.org



Teach for ESD group activities (NaDEET)

CAPRICORN FOUNDATION COMMITS N\$1 MILLION TO WOLWEDANS FOUNDATION'S RURALREVIVE INITIATIVE

Annely Ickua and Reinhold Mangundu

In a landmark moment for sustainable development in Namibia, the Capricorn Foundation announced its partnership with the Wolwedans Foundation on Friday, March 15, 2024 in Maltahöhe. This collaboration signals a significant step towards empowering rural communities and fostering economic resilience in the region. The Capricorn Foundation has pledged a substantial N\$ 1 million towards the Wolwedans Foundation's flagship initiative, RuralRevive: Building a Desert-Based Economy. This is a significant step towards achieving our Community C, which is part of the Foundation's 5C's commitment: community, culture, conservation, commerce and consciousness.

The ceremony commemorating this partnership included a symbolic tree planting, reflecting the initiative's commitment to sowing the seeds of sustainability within the Maltahöhe community. The Capricorn Foundation's generous donation will be directed towards six key areas outlined in the RuralRevive project:

- Horticulture training
- Support for smallholding farmers in organic vegetable production

- Development of The Barn Trading Post app
- Guaranteeing purchase of produce
- Establishment of a recycling plant and waste collection initiatives
- Skills transfer through the EconoMix - Business Basics programme

The Rural Revive initiative is designed to foster inclusivity, integration and resilience in economic diversification efforts. By empowering marginalized groups such as women, smallholder farmers and entrepreneurs, the project aligns with global Sustainable Development Goals (SDGs)

and reflects the principles of corporate social responsibility upheld by the Capricorn Foundation.

Marlize Horn, Executive Officer of the Capricorn Foundation, expressed her enthusiasm for the partnership, stating, "by combining our resources and expertise, we can make a meaningful difference in the lives of rural communities and contribute to the overall development of Namibia."

This sentiment was echoed by Stephan Brückner, Chairman of the Wolwedans Foundation, who emphasized the transformative potential of RuralRevive.



Marlize Horn from Capricorn Group planting the tree

“Through this partnership, we aim to empower Maltahöhe’s rural communities and promote inclusive growth, creating a lasting impact for future generations. We extend our gratitude to the Capricorn Foundation for being the first Namibian corporate entity to join us in this endeavor.”

The launch of RuralRevive heralds the beginning of a journey towards building a resilient desert-based economy and fostering thriving rural communities in Namibia. The Capricorn Foundation and the Wolwedans Foundation invite stakeholders, partners and supporters to join them in this critical endeavor and contribute to advancing rural development in the country.

In addition to the Capricorn Foundation’s pledge, other partners supporting the initiative include the Social Security Commission Development Fund and the Julius Baer Foundation. For further information about the RuralRevive initiative, please contact Reinhold Mangundu at reinhold@wolwedans.org.

The Capricorn Foundation, a non-profit association incorporated under Section 21 of Namibia’s Company Act and a registered Welfare Organization (WO499), is funded by Capricorn Group’s Namibian subsidiaries, including Bank Windhoek, Capricorn Asset Management and Entrepo. It serves as the primary driver of the Group’s corporate social responsibility initiatives, embodying a commitment to sustainable development and community empowerment.



Embracing tradition - the Amaburuxa Group waiting to perform a cultural dance at the ceremony



Daweb Constituency Councillor Motinga capturing the moment



The white Karee tree (*Searsia pendulina*) planted at the site



The editors would like to thank all the contributors to this edition of the Barking Gecko. Many thanks to Vicky Human for her support and layout skills.

This newsletter is for our readers, friends and colleagues of NamibRand. We welcome any ideas, input and feedback you may have.

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