

THE BARKING GECKO



Newsletter of the NamibRand Nature Reserve



September 2006

Volume 7 N° 2

Rolling Stones Gather No Moss— Even with all the Rain!

The NamibRand Nature Reserve has accomplished and witnessed so much over the past six months it will be difficult to include everything in this latest issue of the Barking Gecko.

The phenomenal rains continued this year into May, providing the entire Reserve with approximately three times its normal rainfall, creating a green and alien landscape. Guests remarked upon arrival, “We thought we were coming to the desert!” The vulture restaurant is complete, 80 Burchell’s zebras were successfully captured, and the June game count yielded interesting results. The NaDEET Centre tragically burned down in mid-June and was reborn from the ashes in two short, albeit challenging, months. The Research Centre at Toekoms



has been renovated and furnished and is hosting its first scientists.

The articles in this issue attempt to highlight some of the most interesting happenings on the Reserve. We feel the Reserve has been moving from strength to strength over the past several months – this would not be possible without your enthusiastic support and on-going dedication to the aims of the Reserve. We hope that you will enjoy this issue!

Danica Shaw and Nils Odendaal



Burchell’s Zebra Capture Successful

Capture Operation

The NamibRand Nature Reserve has a high concentration of Burchell’s Zebra around the Keerweder Plains. If left unchecked this high population of zebra would cause unwanted habitat and environmental degradation due to overgrazing.

Recognising the importance of managing these numbers, the NamibRand Board approved a recommendation by Reserve management in 2005 to reduce these numbers through the capture and live sale of zebras.

To help us achieve this goal, the expertise of African Wildlife Services was hired and a capture operation took place between 17- 24 of July 2006. A capture boma was constructed near the main road on the farm Verweg to facilitate the easy loading of animals onto transport trucks. The capture boma was ingeniously designed in such a way that the walls of the enclosure were hidden by shrubs and natural cover, allowing the animals to be herded into the funnel shaped boma by a helicopter, without noticing the canvas walls or realising that they were being captured. Once inside the boma, a series of curtains were then closed behind the advancing animals to prevent them from turning around and escaping. People inside the boma then helped herd the captured animals farther forward into the enclosure, so that they could be loaded onto the waiting trucks. Once on the trucks, the animals were tranquilized to sedate and calm them for the journey to their new home.

Care was taken to keep family groups of animals together both during the capture and on the trucks, so that their social framework would stay intact once offloaded at their new homes.

In total 80 Burchell’s Zebra were captured. These were sold to the following organisations at a “friendship price” of

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Dr. H.O. Reuter of African Wildlife Services and the game capture helicopter.

Photo: D. Shaw

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N\$1,250.00 per animal:

Gondwana Cañon Park – 26 zebra

Gondwana Kalahari Park – 25 zebra

Voorspoed Game Reserve (HH Schultz) – 10 zebra

Frans Indongo Lodge – 19 zebra

The price for these animals was purposely kept low, recognising the difficulties in live capture of animals in the Pro-Namib and realising the need for African Wildlife Services to add their capture costs (including the hiring of a helicopter, veterinary expenses, labour, transport, etc.). At the last catalogue game auction the average price for Burchell's zebra was set at N\$4,000.00 per animal.



Loading zebras from boma into transport vehicles.

Photo: D. Shaw

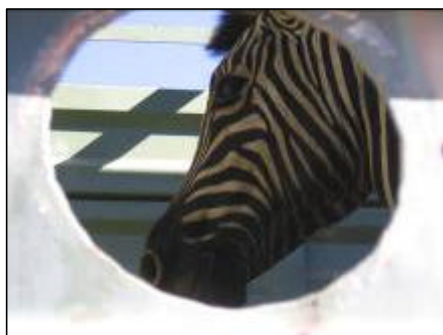
Grazing pressure further reduced

In order to further reduce the grazing pressure on the Keeweder Plains, 25 Burchell's zebra were also herded over the Wolwedans dune belt into the Chateau Plains by helicopter. The helicopter pilot that herded the animals to their new home made sure to take the group directly to the water point near Schafsberg. The hope was that the animals would remain in the Schafsberg / Chateau Plains area, however, they returned a few days later. The exercise was not entirely in vain as at least some of the zebra population, who have been known to venture to the Chateau Plains in the past, now know where to find water, should they decide to permanently settle there.

Results

The burgeoning zebra population in and around the Keerweder Plains has now been reduced from more than 400 animals by approximately a quarter. This reduction should have a significantly positive impact on the immediate environment and will safeguard the area for the next few years.

Nils Odendaal



NamibRand zebra awaiting transport to Gondwana.

Photo: D. Shaw

NaDEET Centre Rises from the Ashes



Fire

On the 16 June at 4:30 pm we were shocked to see a large smoke cloud emerging from the dune valley at NaDEET Centre. NaDEET staff rushed to the Centre to find that the kitchen and part of the classroom of the main building were already ablaze. After several hours of fire fighting and the assistance of our NamibRand neighbours, the fire was put out and only a small portion of the main building remained standing.

Over the next week, NaDEET Centre's future was somewhat unclear as we awaited our insurance settlement and planned how we would proceed. We quickly informed all of NaDEET's friends in Namibia and worldwide of the tragedy that had occurred and asked for assistance in any way possible. With the overwhelming

positive response we received locally and internationally, NaDEET staff set to the task of rebuilding and getting our environmental education programme up and running again as soon as possible.



Main building after fire on 16 June.

Photo: V. Keding

Temporary Classroom

With the loan of a large party tent from Electro Repairs, we set up a temporary classroom in the middle of the accommodation units. In order to hold classes again by the second week in July, we were very grateful to receive many donations including chairs and tables from Cymot/ Greensport and kitchen and classroom supplies from private individuals in Namibia. Lastly, we set up our new solar system to provide lights and electricity for our new fridge and freezer. Although the circumstances were not ideal, NaDEET staff and the visiting groups made the



Temporary classroom.

Photo: V. Keding

most out of the temporary classroom and set to the task of learning about the environment and sustainable living.

Re-construction

Although the old main building was much loved the way it was, the fire did give us the opportunity to improve upon the original design. Three major changes were made: a corrugated iron roof, raising of the structure to install wooden shutterboard floors and

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turning the orientation of the Centre ninety degrees. This allowed us to directly connect the kitchen with the solar deck, improving our cooking facilities. We also moved our small garden house and compost adjacent to the kitchen on the north-eastern side. This has also allowed us to start directly re-using our grey water from the kitchen sink for our small herb and vegetable garden. The reconstruction of the main building was done by Richard Dreyer, who has built much of Wolwedans, together with a small building team from Wolwedans. In less than three weeks, the main building super structure was essentially complete. NaDEET was then very fortunate to have two volunteer carpenters/ craftsmen to finish the inside and the finer details. This included installation of the plumbing and kitchen counter, building shelves for the storerooms, constructing a fat trap for the waste water and building a shelter for our fuel-efficient stoves. A team of workers also painted the roof, moved the garden house and finished cleaning up all the materials and the salvage from the fire. NamibRand Nature Reserve, among the other things they helped NaDEET with, installed all the electrics and the new solar system. On 1 August we were able to do a final clean, move in all of our supplies and take down the temporary classroom tent.



Photo: V. Keding

New NaDEET Centre main building.

the decoration and learning materials for the classroom. We were also able to immediately experience many of the strengths of the new building and to fix the small things that were not quite right. We still have some work to do over the coming weeks to make the Centre feel truly alive again but this will also come with time and with the coming and going of different schoolchildren.

Official re-opening

On 26 August, NaDEET proudly hosted the NamibRand Nature Reserve Annual General Meeting (AGM) in its new main building. The meeting was well attended by all NamibRand stakeholders. Immediately preceding the meeting, the NamibRand community, led by Mr. Albi Bruckner, officially re-opened the Centre and wished it well for the coming years.

Thank you

On behalf of everyone at NaDEET, I cannot express how grateful I am to everyone who has helped us through the past two months. This fire, which at first caused so much destruction, has created an extremely positive experience for us all. It has been amazing to receive such strong support from all of our NaDEET friends and to gain an even greater vote of confidence in our work than before. It is only with this support that we had the strength and energy to rebuild and continue

with our work as quickly as we did. We hope in the coming weeks to be able to personally thank everyone for their gracious help and support. In the meantime, thank you very much!

Viktoría Keding



Sacred Nature

I would be converted to a religion of grass. *Sleep the winter away and rise headlong each spring. Sink deep roots. Conserve water. Respect and nourish your neighbors and never let trees gain the upper hand.* Such are the tenets and dogmas. As for practice – *grow lush in order to be devoured or caressed, stiffen in sweet elegance, invent startling seeds – those also make sense. Bow beneath the arm of fire. Connect underground. Provide. Provide. Be lovely and do no harm.*

Louise Erdrich
"Big Grass," from *Heart of the Land*

June 2006 Game Count



On 2-3 June 2006, the bi-annual game count was held on the NamibRand Nature Reserve.

This "end of wet season" vehicle-based game count was conducted as an in-house event, with assistance provided by those willing and able to do so. The count of Route 1 and 3 were conducted on the morning of 2 June 2006, while all other routes were counted on the morning of 3 June 2006.

Results of this game count are very interesting. With reference to the Reserve's three objectives an executive summary of data can be describe as follows:

Objective 1: Population Estimates

The overall wildlife population has risen by 22%. While the oryx population is significantly lower (1447) than recorded at the last game count (November 2005), the springbok population has significantly increased (17,900).

Low oryx numbers are attributed to their east-west migration. Most oryx move west into the neighboring Namib-Naukluft Park during the wet season. At the time of this count only very few oryx had returned to NamibRand as green grass and standing water was still available west of the Reserve.

The population explosion of springbok is attributed to the exceptional rainy season of 2006. Observations indicate that female breeding springbok dropped at least two calves this season.

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Objective 2: Wildlife Distribution

Wildlife densities are highest in the western and central parts of the Reserve, while areas in the east and south of the Reserve, which had the highest wildlife distribution at the last game count (November 2005), had significantly less wildlife sightings. This can also be explained by the east-west migration of wildlife.

Objective 3: Population Change

The overall wildlife population on the NamibRand Nature Reserve has risen by 22%. The oryx population has decreased by 73%, while the springbok population has increased by 91%.

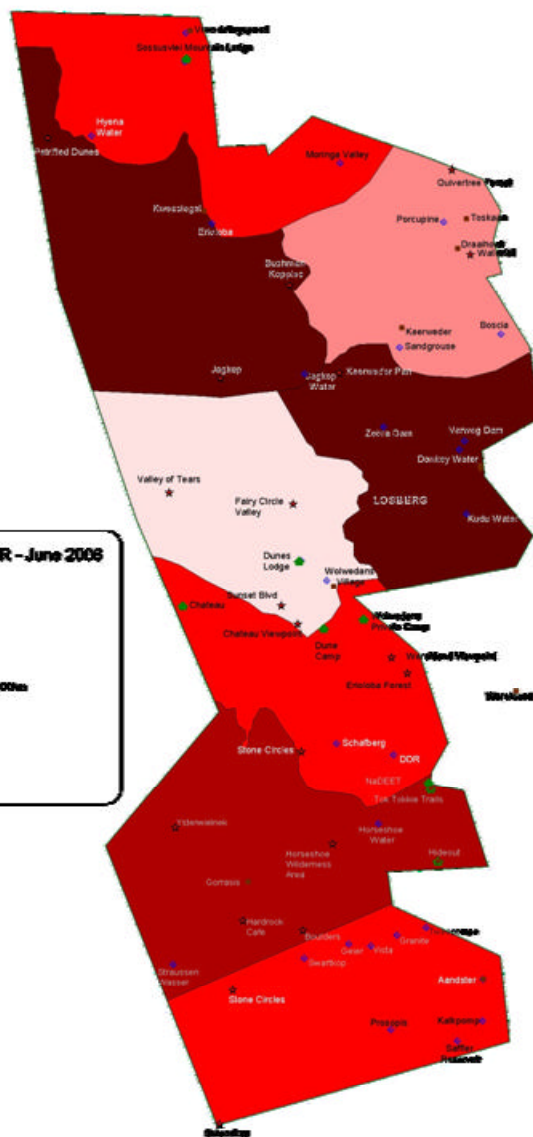
Please note that the species correction factor (probability of seeing all animals of a certain species) has been adjusted for our open terrain. In consultation with leading experts and with previous data on hand, we were able to adjust this correction factor to more accurately reflect our population estimates.

The impact of this year’s exceptional rainy season, during which the Reserve received almost three times its annual average rainfall, is clearly reflected in the data obtained from this year’s census. Late rains delayed the return of oryx to the Reserve, while the abundance of grazing significantly contributed to the huge increase in springbok numbers.

NamibRand staff would like to thank all those who helped with this game count. Although this census was conducted as an “in-house” affair we would not have been able to conduct the count over only two days without their help. Many thanks to Wolwedans for making three teams available, NaDEET and TokTokkie Trails for making one team available and to Albi and Antje Brückner for helping on both days of the count. In addition, we would like to thank Senior Ranger, Andreas Keding for training new comers to the count at Die Duine.

Nils Odendaal and Danica Shaw

Note: A detailed results analysis and report is available on request. Please email us at nmr@iway.na to obtain a copy.



Population Estimates - November 2005* & June 2006

**Please note—November 2005 population estimates have changed due to the adjustment of species correction factor.*

Species	Nov-05			Jun-06			Percentage Change
	No. Seen under 500m	No. Corrected For Area	Total No. Corrected For Species Nov 2005	No. Seen under 500m	No. Corrected For Area	Total No. Corrected For Species June 2005	
Gemsbok	982	3,988	5,583	267	1,034	1,447	-73%
Springbok	1,498	5,754	9,207	2,862	11,188	17,900	91%
Kudu	64	318	827	44	224	583	-31%
Steenbok	2	10	100	1	4	44	-50%
Burchells Zebra	59	259	311	81	366	439	37%
Ostrich	102	403	443	48	194	213	-53%
Blesbok*	1	11	11	0	15	15	36%
Red Hartebeest*	4	55	55	0	70	70	27%
Total	2,712	10,733	16,538	3,303	13,009	36,689	22%



Total Rainfall Received

The rains this year have been incredible. The table below gives the totals from January—May at selected sites throughout the Reserve where data was available.

Place	Total (mm)
Sossusvlei Mountain Lodge	264.5
Kwessiegat	183.5
Draaihoek	260
Keerweder	248.5
Toekoms	237.5
NaDEET	210
Tok Tokkie Trails	209
Stellarine	259



Vulture Restaurant Completed



NamibRand's new vulture restaurant is open for business and regularly serving a carcass to interested vultures.

The vulture restaurant is located on the eastern side of the small koppie along the Draaihoek road. An access road and parking area are located on the northeastern side of the koppie.

The construction of the restaurant including the hide, toilet, stairs and paths took place over two three-week periods in April and May 2006. Raleigh International provided two groups of venturers to complete the restaurant. Peter Bridgeford, Chairman of the Vulture Study Group Namibia worked as a consultant on the project and managed the day to day construction. Andreas Keding, NRNR Senior Ranger coordinated the project, providing logistical and administrative support and supplies.

Each group of approximately twelve Raleigh venturers spent their first week on the Reserve dismantling and removing the last telephone line running from Keerweder to the southern border. The telephone poles were



The 2nd group of Raleigh venturers at the entrance to the completed hide.

collected and used in the construction of the restaurant. The groups then spent their remaining two weeks on the construction of the hide, access stairs, public toilet, paths and parking area.

Main construction was completed at the end of May, although a few more finishing touches need to be completed, including the installation of information boards in the hide.

At this time, the vulture restaurant is open for vultures, but not to the public. The vultures will need at least a year to become accustomed to the restaurant and the availability of carcasses. We ask that people do not visit the restaurant until they receive notification that it has been opened for public use. Vultures are extremely shy and will flee at the slightest disturbance. While the restaurant has been constructed to minimize disturbance, it will still take the vultures time to adjust to activity in the area. We ask all concessionaires to please cooperate with us to ensure the success of this new project. In the interim, special visits to the hide can be arranged with Reserve management.

We would like to thank the following organisations and individuals – without them, the vulture restaurant would still be a dream.

- Raleigh International for their two teams of hard-working venturers;
- The Swedish Local Environment Fund through the Namibia Nature Foundation for funding the construction;
- Peter Bridgeford for his commitment to the project;
- Andreas Keding for his organisational and logistical support throughout the project;
- Jürgen and Dorothe Klein for their support and hosting of the restaurant on Draaihoek; and
- Marilyn Bridgeford for designing our informational materials.

Danica Shaw



The new vulture hide.

Photo: A.Keding



Namibia Nature Foundation's Local Environment Fund - a joint venture between:



EMBASSY OF SWEDEN
WINDHOEK



NAMIBIA
NATURE
FOUNDATION

Photo: A.Keding



Research Update

Research activities on the Reserve have continued this year – many old faces have returned,

as well as a few new ones.

Dr. Jankowitz from the Polytechnic of Namibia continued his research project started last year. He is trying to determine if there is a poisonous chemical present inside fairy circles by measuring the growth and survival of *Stipagrostis ciliata* grass tufts inside and outside of two test circles. He continues to work in conjunction with Dr. M. van Rooyen from the University of Pretoria. Their results have been submitted for publication and are currently under review.

New researchers to the Namibian fairy circle arena arrived on NamibRand in May. Dr. Neil Shirtcliffe from Nottingham Trent University and Dr. Stefan Doerr from the University of Wales Swansea spent several days in the field conducting on-site tests and collecting soil samples. They are trying to determine if the soil in fairy circles is hydrophobic (resistant to the penetration of water).

Dr. Jane Waterman from the University of Central Florida returned to Aandster this winter to continue her long term studies on the social behaviour of Cape ground squirrel (*Xerus inauris*). Dr. Waterman works at two other sites, one in South Africa and another in the Kalahari and has several research assistants from Namibia, South Africa and the US. They made some interesting observations this year at Aandster. Over the past several years, they have not found any juvenile squirrels in the colonies on Aandster. However, this year, it seems they bred again due to the high rainfall. Dr. Waterman and her team hope to investigate this interesting breeding behaviour further.

The new NamibRand Desert Research and Awareness Centre at Toekoms is hosting its first researchers – Lisa Frenzel and Diana Grubert. Lisa and Diana are second year biology students from the Humboldt University in Berlin and have been on the Reserve since mid-August. They are completing a pre-study in preparation for a longer term study next year looking at tourism carrying capacities in the Namib. They are working with Dr. Ulrich Zeller from Humboldt University, who also runs a masters program at the University of Namibia.

We plan to have an official opening of the Research Centre later this year.

Danica Shaw

Call for Contributions

Please remember to send us your interesting tidbits, exciting stories, beautiful photos, comic relief or any other things which you would like to share.



2005 NRNR Bird Ringing Report

August 2005 - July 2006

Bird ringing is a good way to determine the movements of birds, yet also offers an opportunity to determine breeding success. All data collected is sent to SAFRING in South Africa which is then stored in their database. Returns are reported to SAFRING and movements and age of individual birds can be determined from original data.

I have a permit from the Ministry of Environment and Tourism as well as from NRNR to ring birds on the Reserve. The methods used are predominantly mist-netting and in some cases ringing pulli (chicks) on the nest. The table below is a summary of birds ringed on the Reserve during the 2005 ringing year.

Name	Number ringed	Roberts No.	New Name
Blackbreasted Snake Eagle	1	143	Black-chested Snake-Eagle
Spotted Dikkop	1	297	Spotted Thick-knee
Namaqua Dove	6	356	
Pied Barbet	1	465	Acacia Pied Barbet
Greybacked Finchlark	6	516	Grey-backed Sparrowlark
Redeyed Bulbul	1	567	African Red-eyed Bulbul
Familiar Chat	7	589	
Sociable Weaver	17	800	
Cape Sparrow	25	803	
Scalyfeathered Finch	9	806	Scaly-feathered Finch
Masked Weaver	4	814	Southern Masked-Weaver
Redheaded Finch	6	856	Red-headed Finch
Blackthroated Canary	4	870	Black-throated Canary
Yellow Canary	45	878	
Larklike Bunting	81	887	Lark-like Bunting
Total ringed	214		

Ringing was conducted at Die Duine House, Aandster House and NaDEET Centre. The relatively large number of Lark-like Bunting are due to the exceptional rainfall last season. Unfortunately time did not allow for a more concerted effort, as the populations of Grey-backed Sparrowlark, Lark-like Bunting and Yellow Canary exploded in reaction to the rain and this season would have been good to ring large numbers of these species. I will be ringing at two stations in August, and possibly in November again. With some good fortune we should be able to report some retraps. Please look out for ringed birds. Dead birds are probably the only returns we will get, therefore please look at dead



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birds as well, to see if they have a ring. Any ringed birds should be reported to the Reserve management or to the myself (marcdurr@iway.na).

Any vagrants (referring to birds) should likewise be reported to Reserve management. There is a project in the pipeline to revive the Bird Atlas of Southern Africa and any sightings and existing atlas data will be invaluable to this effort. **Everyone please continue to support the atlas project on the Reserve, co-ordinated by Andreas Keding.**

Happy twitching!

Marc Dürr



Desert Thoughts

A thousand fantasies begin to throng into my memory, of calling shapes, and beckoning shadows dire, and airy tongues that syllable men's names on sands and shores and desert wildernesses.

John Milton 1608—1674



News @ NaDEET

NaDEET Centre

Between March and the fire in mid-June we had nine groups visit NaDEET Centre. Two of the groups are local (Daweb JSS and Aranos PS), five from Windhoek (Deutsche Höhere Privat Schule x 2, Peace Centre, Young Scientists and Windhoek College of Education) and two from Swakopmund (Namib PS x 2). It is the second time that learners from our local school in Maltahöhe, Daweb JSS, have come to NaDEET Centre due to the sponsorship of Sossusvlei Mountain Lodge through their Ostrich Egg project.

Learners from Daweb JSS were also the first to try out our new humane live small mammal traps (Shermann Traps) to try to catch mice, gerbils and other nocturnal creatures on the dunes. These traps had been kindly sponsored by the Wildlife Society of Namibia and my parents to increase our and the learners' knowledge of the local fauna.

Although we were unsuccessful the first time using the traps, we have with subsequent groups caught 3 - 12 individuals in one night. There are two



Learners checking pitfall traps.

Photo: V. Keding

species that we are trapping on a regular basis- the Dune Gerbil and the Striped Mouse. On occasion an Armoured Cricket has also walked in the trap and set it off. Together with the old yoghurt buckets that we use as pitfall traps, this activity is extremely exciting and educative for the learners. We now have an opportunity to see a lot of different Tok Tokkie beetles and other insects, arachnids and small mammals that we otherwise would not see. Learners are asked to make a biodiversity list of all the animals that have been trapped and then identify the various physical and behavioural adaptations.

Another first time visitor at NaDEET Centre was the Peace Centre from Freedom Land, an informal settlement in Windhoek. The Peace Centre aims to assist communities in overcoming poverty and violence and its related issues. They brought a group of primary school aged children for a week long visit. NaDEET staff had to dramatically change their teaching approach as most of the children are unable to read and do not attend school on a regular basis. Nevertheless the group truly had a once in a lifetime experience and learned many skills that will help them survive in their daily lives.

Most recently we had a group of 31 first year students from the Windhoek College of Education. These students are all enrolled in a three year course to become primary and secondary school teachers with a major subject of social



Students from the Windhoek College of Education.

Photo: V. Keding

studies and geography. We prepared a special programme for the students that included many of our normal activities (i.e. water saving, solar cooking and biodiversity) in addition to activities focusing on environmental education in general. One of the activities the students said they benefited from the most was looking at different educational approaches to engage learners. Many felt that the activities presented at NaDEET were a model of 'good education' that they would like to try to implement at their schools. Since our inception in 2003, it has been an aim for us to have educators participate in the NaDEET Centre programme. It was an extremely rewarding week for all the participants and NaDEET staff alike. The Windhoek College of Education has already made a booking for 2007 to bring next year's first year students.

At-School-Programme

In April we conducted an At-School-Programme with Frans Indongo Primary School. This is a pilot project in which NaDEET Centre participants develop an action project to implement in their home/school community. We received funding last year from Greenwich World Hunger in the US to implement this project on a trial basis with one school. Originally we had selected a local school in Mariental who had developed a solar cooking and recycling project. Unfortunately

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this project had to be indefinitely postponed due to the terrible flood in Mariental at the end of February. Due to the overwhelming enthusiasm of the learners and principal of Frans Indongo Primary School, they developed and implemented an action project in the middle of April very quickly. Learners and teachers decided to have a demonstration day for the other teachers, schools and community members to share what they had learned at NaDEET. Learners prepared various items made from recycled materials. The teachers demonstrated how to solar cook and the principal also invited a guest speaker from the Windhoek Solid Waste Division. It was an extremely successful day that everyone enjoyed. Although ideally we would like to implement the At School Project with all schools, it would require a huge additional cost to our annual budget to provide a vehicle and extra staff person. Therefore we will not implement this project on a large scale for the foreseeable future.

In-House Capacity Building

Since the last Barking Gecko one of our assistant environmental educators, Bornface Simangolwa, is no longer with us. Michaella Phemelo has done an amazing job on her own and, within a few more groups, will be able to conduct all of our primary school groups independently. Between January and June, Thomas Neema was also here completing a six month in-service training. In July a new student, Patience Mamili, joined us until the end of the year.

Viktoria Keding

New Arrivals

Sophie-Marie Brückner was born on 28 March 2006 to Stephan and Jana Brückner. Congratulations and best wishes to the new family!



Proud parents Jana and Stephan with Sophie-Marie on her first visit to Wolwedans.

Photo: S. Brückner

Sonja Katsch and Peter Hanssen have been hired to manage Tok Tokkie Trails for Safaris Unlimited. Sonja has a degree in Nature Conservation and is Tok Tokkie's chief guide. She has been stationed at Die Duine since March this year. Peter came to the Reserve in July from the Otjiwarongo area where he has a farm. Die Duine is looking great and Tok Tokkie is keeping extremely busy with back to back trails. NamibRand welcomes them both and wishes them all the best!

Danica Shaw



Sossusvlei Mountain Lodge Wins Award

Sossusvlei Mountain Lodge Maltahöhe Kids Project won the best community program award for all 42 CCAfrica lodges throughout East and Southern Africa for 2005/2006.

The wet waste from the kitchens at the lodge used to be trucked to Maltahöhe for dumping every week. The drivers reported back to the lodge managers that many small children were sifting through the waste to find something to eat. It was decided that something needed to be done about this tragic situation. After consultation with local leaders in Maltahöhe it was determined that a feeding program would greatly benefit the town's orphans, many of them AIDS orphans, and other needy children.

The project was officially opened in Maltahöhe on 25 January 2005 and seeks to provide daily feeding to orphans and other needy children. The project began feeding 48 children and is currently providing for 108.

Children in the program receive a bowl of mealie pap every day during the week as well as fresh fruit on Monday, Wednesday and Friday. In addition, SML's delivery truck takes freshly baked banana bread from the lodge when possible. During the winter months, the lodge provides homemade soup.

Funding is raised for the project from guests through the sale of ostrich eggs at the lodge. Eggs are sold for N\$100, or a larger donation and are wrapped for transport with a photo of the children. The project has been highly successful and has allowed SML to expand the program to include the following:

- Payment of 2006 school fees for 25 of the neediest children at Daweb Junior Secondary School in Maltahöhe.
- Sponsorship of five large (30+) groups of local and other underprivileged learners at NaDEET.

SML has spent N\$100,000 between July 2005 and August 2006 and hopes to continue to add more children to the feeding program, support more school fees and sponsor more school groups at NaDEET in 2007.

Congratulations to Sossusvlei Mountain Lodge on their award, but more importantly on their commitment to our local communities!

Compiled by Danica Shaw from SML press release

Chicks Galore!

Between late June and early August a group of 100 ostrich chicks was regularly sighted on the Chateau Plains and near Schafsbere—yes—you read correctly—100! The chicks were old enough to fend for themselves, although they were still speckled. It is expected that many have survived.

Typically the group was accompanied by two only two adults. Hopefully there was a good deal rotation in the parenting duties!



Danica Shaw

Fairies Magically Appear on NamibRand

The wet summer brought out of hiding an exotic animal even less expected in the desert habitats of the Reserve than the frog tadpoles found in pools in a canyon close to Mountain Lodge last January: crustaceans called fairy shrimp, in the class Branchiopoda. The name branchiopod means “gill foot” and is apt because the leaf-like limbs along the trunk beat rhythmically for locomotion, respiration as the animals swim backwards (usually belly-up), and for the generation of feeding currents to move food particles toward the mouth.

The four specimens of fairy shrimp collected on 5th March 2006 by astronomer Miles Paul from an flooded depression between Stonehenge and Hyena Water in what may have been a farm pond to catch run-off from the mountain are *Branchipodopsis tridens* (family Branchipodidae) and real beauties. They almost fit a mid-20th century zoologist’s description of “true fairy shrimps [as] fairies in every sense of the word – graceful and easy of movement, and clothed with delicate draperies (as one might term their many foliaceous limbs), often so beautifully transparent that the shrimps seem almost to be endowed with fairies’ magic cap of invisibility.” I identified the preserved specimens, all males, after viewing them by light and scanning electron microscopy at the University of Victoria, British Columbia. Two were full

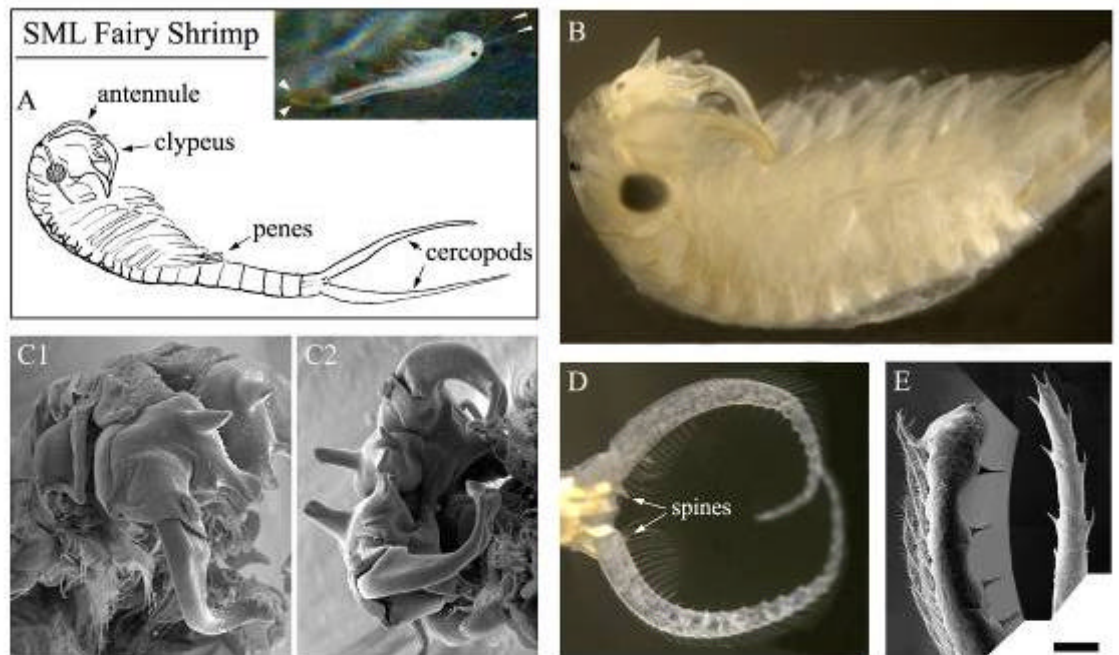
size, about 12 mm body length (not including the antennules and cercopods), and the third was nearly as big. The smallest one, about 8 mm, had evidently just molted, because parts of the old exoskeleton were still hanging around the head. One of fairy shrimps’ most extraordinary parts is the clypeus or ‘clasper’ of males; it is formed by the pair of greatly-expanded antennae, which are fused at their base. The shape and excrescences of the clypeus (see figure) are main features used to identify species.

The tadpole shrimp reported at Sossusvlei are also branchiopods, but they belong to a separate order (Notostraca) from the fairy shrimp, order Anostraca. The fairy shrimp are ever so much prettier and, from the point of view of

“primitive” features, equally, if not more, interesting. The earliest branchiopod fossils from the Cambrian resemble modern fairy shrimp; also, recent molecular data suggest that the fairy shrimp had separated from all the other Branchiopod groups by at least that time, so ‘fairies’ have indeed been around a long while.

Fairy shrimp, and other Branchiopods, are common around the world, but seldom seen unless looked for, because they make only sporadic appearance, and then only in evanescent fresh water pools. Only after sufficient rain has fallen to leave relatively substantial puddles and pools will the drought-resistant eggs laid by the last generation of the previous wet period (which might have been 50 or more years in the past) start developing and hatch in less than a week. The first larval stage, a small ball less than 0.5 mm, propels itself by its second antennae. As it has no mouth, it doesn’t feed and is nourished by yolk in the remains of an embryonic yolk sack. Development proceeds rapidly through approximately 22 stages (molts) to sexual maturity. In the first several generations (the number depends of the length of the rainy season), females outnumber males; they produce “summer” or “wet season” eggs asexually, so several generations may pass in a month of flooding. Later, as the wet season wanes, drought-resistant (“winter”) eggs start to be produced; they are fewer and usually

(Continued on page 10)



Branchipodopsis tridens (Class: Branchiopoda. Order: Anostraca. Family: Branchipodidae). **A**, drawing of a preserved specimen shown in normal swimming orientation, belly up; inset shows live animal swimming with its antennules (narrow arrowheads) and cercopods (wide arrowheads) extended (photo by M.P.). Large clypeus (= antennae, fused at base) and penes identify specimen as male. Note median eye (small black spot on top of head behind the antennules) in addition to large compound eyes. **B**, photomicrograph of head and thorax of specimen in **A**. **C1** and **C2**, scanning electron micrographs of a different specimen, showing two views of clypeus - its form and the projections from it are diagnostic of this species. **D**, photomicrograph: ventral view of last abdominal segment and cercopods of a preserved specimen - note long setae on inner side at base of cercopods and pair of spines on last abdominal segment. **E**, scanning electron micrographs showing some details of cercopod setae and spines: **left**, feathered setae on outer side and spines on inner side of the mid-section of the cercopod from which the outer third had been lost before preservation; **right**, spines at tip of the opposite, intact cercopod. Scale bar (in **E**): **A**: 1 mm, inset: 2.9 mm; **B**: 0.4 mm; **C**: 0.5 mm; **D**: 0.3 mm; **E**: 0.6 mm (left), 0.5 mm (right).

[D.H. Paul, 30/06/06]

(Continued from page 9)

produced sexually (hence the need for the claspers in the NRNR specimens described above). Drought-resistant eggs can and often do survive for decades, sometimes repeatedly subjected to searing, alternating with frigid temperatures, before the next locally favorable wet season conditions arise. In fact, at least one heat-stress period is thought to be required for normal development, so the odd off-season shower won't trigger the onset of what would be abortive development. Many of the flooded areas around the Reserve likely harboured *B. tridens*, perhaps other fairy shrimp species, and other branchiopod crustaceans.

The enduring success of these delicate, seemingly-so-vulnerable animals presumably stems not only from their ability to produce two kinds of eggs, but also from the ease of dispersal of the drought-resistant variety. These could easily be swept aloft by winds wiping up the dried soils and fine sands left when the water has evaporated from the areas where they were deposited. They could also be transported widely when caught in the fur or feathers of vertebrates passing through areas experiencing periodic flooding. In southern African desertic habitats, sand grouse are probably among the unsuspecting accomplices in the dispersal and survival of fairy shrimp and other branchiopods. More delights for the desert crustacean biologists and other curious observers likely lurk in the sands of the Reserve's ephemeral pools.

Dorothy Paul

*Dorothy Paul and her husband Miles, worked at SML in 2005-6 as resident astronomers. Dorothy recently retired from the University of Victoria, British Columbia where she was an Associate Professor of Biology for 13 years. Most of her teaching has focused on neurobiology (how nervous systems control behaviour), along with comparative animal physiology and invertebrate zoology. She and Miles are planning to return to SML in 2007 to help guests gaze at our exceptional night skies.



Volunteer Student Assists Reserve

Four or five months ago, a hopeful and very speculative email was sent from London to NRNR regarding the possibilities for volunteer student work and academic research on the Reserve. A few days later, while engrossed in exam revision, a reply was received requesting a study to be done comparing the economics of alternative land uses in and around the NRNR. This is a subject which I am particularly interested in and was hence keen to pursue, unfortunately at the expense of further exam revision!!

My name is Richard Hooper and I am currently studying at the London School of Economics for a BSc in Economics and Environmental Policy. I grew up mostly in Johannesburg and have worked for a year in northern Zambia for a human aid organisation. However, my experience of Namibia was limited to two months working with EHRA (Elephant Human Relations Aid) in Damaraland in 2005. This gave me a taste of the country whilst developing a distinct willingness to return.

Over the past few weeks at NRNR I feel I have developed a

good understanding of the Reserve, its operation and underlying motivations with conservation as the primary objective, funded by sustainable resource utilisation. This is part of what my study entails; bringing in the financial side of conservation and looking at issues of social upliftment and sustainability while comparing these, where possible, with the alternative land uses such as livestock farming.

It has been a privilege working on NRNR and experiencing first hand the preservation of this beautiful landscape and its biodiversity. I would like to thank everyone for making this a brilliant few weeks, particularly Nils Odendaal and Danica Shaw for your hospitality and for fitting me into your hectic schedules!! Thanks also to Andreas and Viktoria Keding for adding to my experiences.

Over & Out!

Rich Hooper



Photo: A. Botha

White-backed Vulture with patagial tag.

Marking Vultures with Patagial Tags

The marking of birds to keep track of their movements, is a research tool that has been used for many years all over the world. The simplest and generally, cheapest way is to place a numbered metal ring around the leg of the bird. The birds

are caught with the aid of nets or a variety of traps. For the information to have value, there must be a chance of recapturing the ringed bird. This is possible with most birds, but when it comes to vultures, this is not so simple. Most vultures are ringed as chicks before they leave the nest. Once the chick has fledged, it is a difficult task to recapture it. In southern Africa, during the past 30 years, vultures have been ringed with a numbered metal ring plus coloured plastic rings on both legs. By noting the combination of coloured rings, the identity of the vulture can be established without having to check on the number of the metal ring. For this system to work, the observer has to be close enough to differentiate the colour of the rings. Unfortunately, the rings fade in the harsh African sunlight, they become dirty and the colours cannot be distinguished. In addition, some vultures have managed to remove one or more of the rings.

The Birds of Prey Working Group of the Endangered Wildlife Trust, at their AGM in 2006, decided that the old coloured rings no longer served their purpose and a better and more effective system was needed to re-sight marked vultures. At this meeting, leading conservationists, researchers and vulture experts decided to use patagial tags. A patagial tag is a numbered, coloured plastic marker fitted to the bird's wing. When the bird is perched, the tag can be seen on the wing. This method has been used for years in America to mark raptors and condors. In

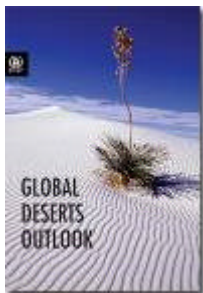
“THE WILDLIFE OF TODAY IS NOT OURS TO DISPOSE OF AS WE PLEASE. WE HAVE IT IN TRUST AND MUST ACCOUNT FOR IT TO THOSE WHO COME AFTER US”

southern Africa, this marking system has been successfully used in several research projects.

To test the efficacy of the patagial tags on vultures, a number of birds were tagged in South Africa. Within days, reports of these birds were received from several places in South Africa and a marked White-backed Vulture was seen at the Rare and Endangered Species Trust vulture restaurant, on the farm Monte Christo near Windhoek and another sighting from the farm Overschot, south of Gochas in the Kalahari. In all the years of using the coloured rings, no such reports were ever received.

Most of the vulture ringing fraternity in Namibia has decided to try the system this year and then monitor results. Training will be given to all vulture ringers before they are allowed to use the patagial tags. The vulture chicks on NamibRand Nature Reserve will be marked with yellow patagial tags. Visitors and staff are asked to keep a lookout for any marked vultures and to please report them to Reserve management. Likewise, the birds fitted with coloured plastic rings are still of great importance and should also be reported.

*Peter Bridgeford
Coordinator: Vulture Study Group, Namibia*



Global Deserts Outlook

A new report, the Global Deserts Outlook was recently produced by the United Nation’s Environment Programme. The report is described as the first comprehensive look at the Earth’s driest regions. It highlights the problems—and also the potential— in arid areas. The authors call for more careful use of scarce water resources to safeguard the futures of desert populations. “Far from being barren wastelands, [deserts] emerge as biologically, economically and culturally dynamic while being increasingly subject to the impacts and pressures of the modern world,” said Safquat Kakakehl, from UNEP.

For more information, or to obtain a copy of the report, visit www.unep.org/geo/GDOOutlook.

*Compiled from BCC News, 5 June 2006, www.bbc.co.uk
Submitted by Ron Asprey*



Weather Report

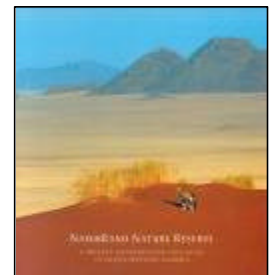
The Reserve had a calm winter, with only a few days of East wind. In addition, a few of days of fog and condensation were provided by weather systems from the Cape.

Please see the table below which provides the maximum and minimum temperatures recorded in a month as well as the average maximum and minimum for the month.

Month	Max	Min	Ave Max	Ave Min
Apr	40	7	33.6	15
May	35	-0.5	27.6	4.5
Jun	33	-2	27.9	6
Jul	34	-3.5	28.4	2.1
Aug	36	-4	29.3	4.9

NRNR Brochure

We are happy to announce that the Reserve has just printed a beautiful brochure and hope that this tool will assist us in promoting the Reserve in various ways. The brochure was accomplished with the design assistance of Stephan Brückner and Nico Kopf at NamibRand Safaris—many thanks for their creative input! If you would like one or more copies, please contact us.



Thank You!

Many thanks to those of you who contributed to this issue of the Barking Gecko—Viktoria Keding, Marc Dürr, Dorothy Paul, Rich Hooper, Peter Bridgeford, Ron Asprey and Nils Odendaal. I appreciate all your input—it makes for much more interesting reading!

Danica Shaw

NamibRand Nature Reserve

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