

# FSM-TIMES

## Four-Striped Mouse

**Title**

**Travel and Holiday  
in Namaqualand**

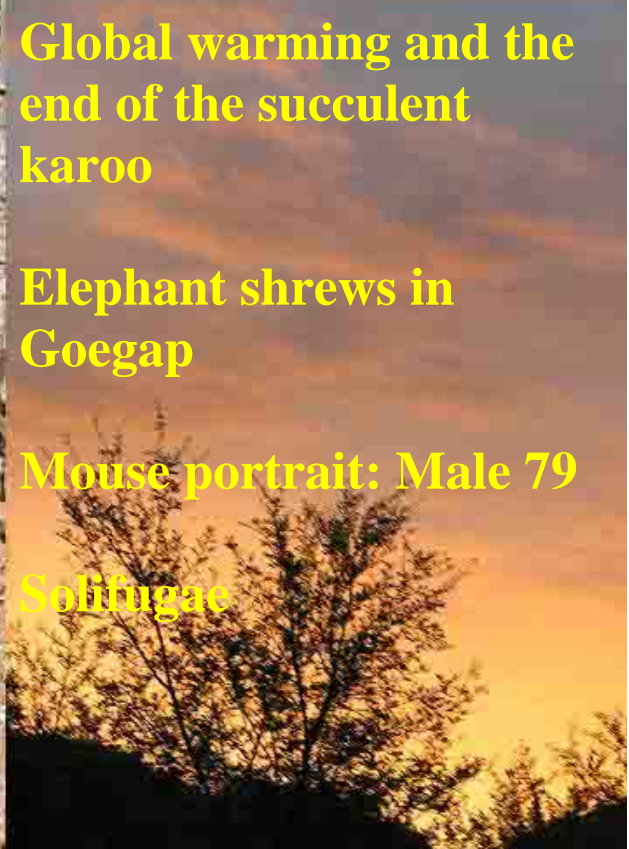


**Global warming and the  
end of the succulent  
karoo**

**Elephant shrews in  
Goegap**

**Mouse portrait: Male 79**

**Solifugae**



## EDITORIAL

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# WELCOME: THE THIRD ISSUE OF THE FSM-TIMES!



The third issue of the FSM-TIMES is already a step into routine. You know what you can expect and we (hopefully) know how to do it. Ever increasing numbers of subscribers from

all over the world demonstrate that there is interest in what we are doing here in Namaqualand. The number of subscribers to the FSM-TIMES/ SGM-Spiegel is now clearly more than 100. Furthermore, the FSM-TIMES/ SGM-Spiegel have been downloaded from our website more than 500times in the last three months. Thus, most readers of the FSM-TIMES are actually no subscribers, although subscription is free. In the last issue of the FSM-TIMES we published a call for donations for our research. The reaction to this call can be summarised by two facts: 1. Very few people made a donation, less than 5% of subscribers. 2. Those who made donations, donated clearly more than the suggested

R80/ Euro 10. We want to thank all donors for their support and would remain grateful if non-donors decide now to make a donation. For banking details see page 32.

Nevertheless, the FSM-TIMES had also been a financial success, raising so far R 5000/ Euro 700. This is also due to the fact that businesses from Namaqualand support us by advertising in this issue. So please, support us by supporting them when coming for a visit to our beloved Namaqualand. Most readers probably did not even know that Namaqualand exists before they had their first FSM-TIMES in their hands. Thus, it is time to present Namaqualand in a more detailed way, and we do this with our title: TRAVEL AND HOLIDAY IN NAMAQUALAND. You will get to know about the wonders and attractions Namaqualand has to offer. If you are interested in nature, but not in mass tourism, Namaqualand should clearly be one of you next destinations.

Kind regards,

*Carsten Schradin*

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## THE DIFFERENT PLACES AND LOCATIONS

### **South Africa**

As the name says, it is the most southern country in Africa. South Africa lies at the Cape of Good Hope. The population of South Africa (40 million) consists of black South Africans (e.g. the Zulu) which represent 75% of the population. 12% are white, 8% coloured, and some are Indian, Malaysian or descendants of the San (bushman). South Africa is the only industrialized country in Africa with a very good infrastructure.

### **Succulent karoo**

It describes a special vegetation type. It receives low rainfall in winter and is characterized by dwarf succulent shrubs and an amazing wildflower display in spring. It is a desert to semi-desert environment. Succulent karoo is found in Namaqualand and southern Namibia. In the FSM-TIMES, the words succulent karoo and Namaqualand are often used as synonyms.

### **Namaqualand**

It is situated in the northwest of South Africa, between Cape Town and Namibia. Famous for its wildflower display in spring, Namaqualand was one of the world's most important copper mining areas at the beginning of the 20<sup>th</sup> century. Nowadays the diamond mines are more important. Because of its dry desert like climate, agriculture is mainly absent and population density low. Namaqualand is part of the Northern Cape Province.

### **Springbok**

It is the capital of Namaqualand. Although Springbok has only around 20 000 inhabitants, it has shops for nearly everything, including two well stocked supermarkets. At weekends Springbok is very busy, when all Namaqualanders come here to do their shopping.

### **Goegap Nature Reserve**

Pronounced as "Guchap", this nature reserve lies only 20kms outside of Springbok. In spring it is visited by thousands of tourists that are attracted by its wildflower display. During other times of the year it is very quiet and mountain zebra, gemsbok, springbok, aardwolf, mice and mice researchers live in peace.

### **Field Site**

This is the place in nature where the scientist collects his data. So our field site is where we observe the mice

## LETTERS

*Please tell us your opinion about the FSM-TIMES.*

Hello Carsten and team.

My wife and I were at Goegap on the 30<sup>th</sup> December. When we drove past your house, one of your assistants kindly gave us a copy of the FSM times that we have found so interesting. We wish you every success and a happy stay in our lovely country.

Best Regards  
Colin and Phyl Soper  
*South Africa*

# NAMAQUALAND-WEATHER

by Carsten Schradin

The last three months	January	February	March
Minimum temperatures			
night	13	12	10
day	27	27	20
Maximum temperatures			
night	26	24	24
day	38	41	36
Rainfall in mm	60.1	2.7	12.7
Days with rain	4	2	5

January to March is the dry season. Thus, we were very happy when we got some rain in January. However, it soon became very clear that this thundershower did not only bring some rain. After 48h hours, when the storm was gone, we measured 59mm at the research station, which is nearly 40% of the annual average! And this happened in the

dry season, within 48 hours. Over the last 40 years, the average rainfall for January was 3mm, so this year we nearly got 20times as much. It was the first time I saw the river at the field site in flood, and Johan, who worked for more than 20 years in Goegap, told me, this river was never in flood as long as he had been here.



*The river in flood*

What were the consequences for nature and for the mice? The nests of most mouse groups lie directly at or even in the riverbed, several were flooded, one even taken away by the angry river, that was flowing for only 2 days. However, most mouse groups coped well, and all survived. Only group 6 (female 198), which nested directly in the riverbed, seemed to have had some victims, as group size declined from 5 to three.

But what about the vegetation? First I was worried that the floods had taken most of the fertile soil away as well as many plant seeds. The entire field site had been flooded. But on the other hand, the water coming from the hills surrounding us had brought some fine mud covering the ground. And the plants were happy, too. Soon numerous seedlings were starting their live, and the yellow flowers of *Tribulus zeyheri* covered the land in a beautiful coat (see plant portrait below).

Good news for plants were also good news for mice. They once again proved their flexibility and started a second short breeding season. Normally the dry season is when they loose around 12% of their body

weight, as there is not enough to eat. But that was not the case this year. Instead, the mice were getting rounder and rounder and the females gave birth again.



*As the sun came out, the scenery at the normally so dry field site was rather lovely: A small stream was running through, as if it belongs here. But only 12 hours later, it was gone.*

## GLOBAL WARMING AND THE END OF THE SUCCULENT KAROO

*By Carsten Schradin*

I work in Goegap in the succulent karoo for 4 years. During this period, we had the driest winter since 1960, when the weather station was established in Springbok. And now we had by far the wettest season since January 1960. This seems to be clear indication that the weather is changing, isn't it?

There are at least 4 possible weather extremes: 1. the driest, 2. the wettest, 3. the coldest and 4. the warmest. This can be the case for all 4 seasons, as well as for all 12 months. In the last 45 years since 1960, one had to have had the hottest summer, the coldest spring, the driest winter (2003) or the wettest January (2005). So, for the last 45 years, that means for the seasons (4) and months (12) combined, and taking into account that there could be (at last) 4 weather extremes, there were  $(4+12)*4=64$  weather extremes. This is  $64/45=1.4$  weather extremes per year. We had two in

four years, or on average 0.5 per year. So, the weather rather seems to be unusually stable, instead of changing.

Nevertheless, there is clear indication that the global climate is changing. Beginning of the year the world leading experts on climate and weather were meeting in Exeter/ U.K. Their prognosis was terrible. They expect global warming of 3 degrees C until the end of the 21<sup>st</sup> century. The world already warmed up by 0.7 degrees C, and global warming will exceed 1.0 degree C in the next 25 years. The succulent karoo has been identified as one of three biomes that will suffer extraordinarily under global warming (the other two are coral reefs and the highland tropical rainforests of Australia). A warming of 1-2 degrees will lead to enormous damage to the succulent karoo: more droughts. If the temperature will increase by 2.5 degrees C, this would mean the end of the succulent karoo. All 2800

endemic plant species that occur here and nowhere else in the world would go extinct. The succulent karoo as a biome and ecosystem would cease to exist.

What can we do? Save energy and reduce greenhouse gas emission. The prognosis is very bad, but keep one thing in mind: Prognoses are made such that they will not come true. We CAN still make a difference.

## THE PEOPLE IN GOEGAP

*By Carsten Schradin*

Theoretically, the dry season should be a quiet season: Breeding season is all over, the mice bask quietly in front of their shrubs, no students here, and apart from observing the mouse groups in the morning and afternoon, I can spend my time writing scientific publications and proposals. Still, to observe 9 mouse groups alone is not easy, and thus I was quite happy to get some help from Lars Müller and Daniel Weidner. Both joined the research station in December, shortly before Christmas. Originally they wanted to go to Namibia to study the influence of tourism on the nomadic Himba population in the North. However, they had to wait until the end of January before they got their visa. In the meantime, they spent mornings and afternoons observing mice, increasing the sample size for January. During the day, they worked on their research proposal for Namibia, such that their time here was used very sensibly.



*Daniel (left) and Lars observed mice in January*

When the two guys left, a new field assistant arrived: Berrit Korska from the university of Münster, Germany. As a biologist, she was

a real full-time field assistant. After nest observations, her work only began: Radio-tracking mice to determine home ranges, trapping and marking mice, doing experiments at nesting sites and in a field arena. Her help was very important and much appreciated. The unexpected short breeding season after the heavy rains in the normally dry month, January meant that much more field work had to be done than I had expected for this time of the year.

Normally, in the dry season, mouse groups are stable, no pups are born, only a few mice fall victim to predators. Not so this

### **How to become a field assistant?**

Only people with a biological background can become field assistants. These are students of biology, veterinary medicine or related areas. The work of field assistants includes: radio-tracking, trapping and marking of small mammals, behavioural observations, work at the research station, including maintenance, and much more.

People interested in working as a field assistant for 2-3 months write an email to [info@stripedmouse.com](mailto:info@stripedmouse.com). Please write a short motivation and attach a CV. You will then obtain more information.



year, when females gave birth again to pups that had to be marked, and females left groups to give birth and we had to see if they came back or formed new groups. Berrit proved to be able to work both hard and very independent. Without her help I would not have found time for other things, e.g. writing the FSM-TIMES.

All the time Brigitte Britz also helped. Although my fiancé started working in December, she still helped with nest observations, concentrating on one group. Thus, sample size increased by 1 without myself having to do anything.



*Berrit Korska also kept an eye on the elephant shrew population*

# TITLE: TRAVEL AND HOLIDAY IN NAMAQUALAND

*By Carsten Schradin*

## GENERAL INFORMATION

**8 Rand = 1 Euro = 1.3 dollar**

**Climate and best time to go:** Namaqualand can be visited during all parts of the year. Most tourists come in spring (August/ September), when the wildflowers are in bloom. Early summer (October – November) is the best period if you are interested in wildlife, especially reptiles. Summer (December to March) can be very hot, but is also a very quiet period. Autumn (April/ May) is my favorite time of the year: It is warm but neither too hot nor too cold. The autumn flowers are not as spectacular as the spring flowers, but their appearance brings special colors into the landscape. Winter (June/July) can be cold and rainy, but there are normally also warm periods. Wildflowers start to emerge and cover the land in their beautiful coat.

Rainfall in Namaqualand is variable between years, regions and seasons. Rain typically falls in winter, with 50mm/ year at the coast, 150-200mm further inland and 300mm at the Kamiesberg (in comparison: Europe gets around 1200mm/ year).

There are yearly differences in rain fall and years with very spectacular wildflower displays can be followed by a drought with nearly no flowers at all. Thus, when visiting Namaqualand take this into consideration and enjoy nature, even if it is this year different from what you expected.

**Duration:** Including Cape Town, you should spend around 2 weeks. If you want to visit one of the amazing national parks outside Namaqualand to see lions and elephants (see box at the end of the article), you should spend an extra week.

**Accommodation:** Variable forms of accommodation are available, from camping sites to luxury accommodation. A double room in a decent guest house costs around 50 Euro (400 Rand, 60 dollar), but cheaper accommodation is available. Outside the tourist season (July – September) accommodation is easily available. During the tourist season you should book several months in advance. See boxes for local information below.

**Costs:** Costs include accommodation (approx. 50 Euro/night for a double room), rental car (from 30 Euro for a simple car to 150 Euro for a 4x4 per day), food (restaurant meal ca. 12 Euro per person, prices in supermarkets are like in Europe), tours and entrance fees (2.5 Euro for Goegap, between 5 and 15 Euro/day for National Parks for foreigners)

**Tours:** There are few organized tours from Cape Town to Namaqualand, but several tour operators have their office in Springbok (see box below). They can pick you up at the airport in Cape Town and show you the wonders of Namaqualand. Otherwise you should rent a car in Cape Town and explore Namaqualand yourself.

**Travel in your own car:** Take a good spare wheel with you and enough water for you (3-5 liters per person per day). Some areas are very lonely and after a breakdown you might have to wait one day until some help arrives. As it can get very hot, your car might overheat. Thus, take some extra water with you to fill up the cooling system in an emergency (5 liters).

**Health:** Namaqualand is a desert to semi-desert area, one of the healthiest environments on earth. Apart from normal vaccinations (polio, tetanus), no extra precautions are needed. If you plan to visit a national park outside Namaqualand to see lions and elephants, you might need malaria prophylaxis. Ask your doctor. Several towns in Namaqualand have private doctors and hospital offering good medical care.

**Security:** Namaqualand is the securest area in South Africa and crime nearly absent. Normal security precautions like in Europe are sufficient (close your car when you leave it, hide valuables etc). All towns have a police station, although the one in Springbok can neither be called friendly nor especially helpful.

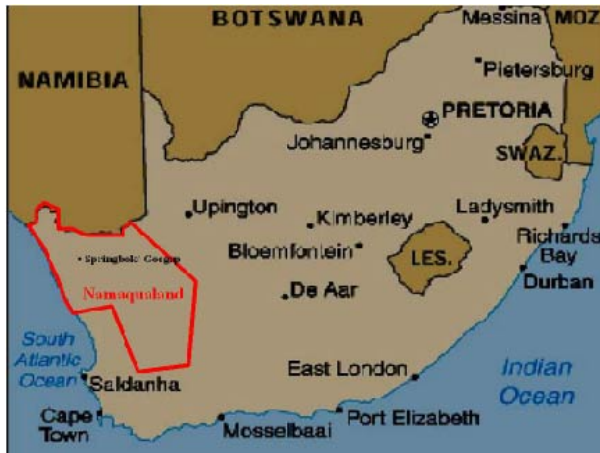
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*Namaqualand and its capital Springbok*

### **Namaqualand**

Namaqualand got its name from its original inhabitants, the Namas. These people belonged to the Khoi-khoi, who lived mainly from their livestock, cows and goats. The Nama language includes click sounds and is nowadays nearly extinct. However, in the Richtersveld area of Namaqualand some people still speak Nama (see below). As the pressure from the Cape colony and its settlers increased in the 19<sup>th</sup> century, several Namas fled over the Orange River. Thus, another country owes its name to the Namas: Namibia.

Namaqualand was the land of the Namas, and one magisterial district of the Northern Cape is still called Namaqualand. However, for naturalists Namaqualand is the part of the succulent karoo that lies in South Africa, partly in the Western and mainly in the Northern Cape. It starts about 270km north of Cape Town with the town of Vanrhynsdorp and continues for 450km until the Orange River, the border to Namibia. Only few Namas are left in Namaqualand, as most of them have mixed with the colored community, descendants of white, Khoi-koi and black ancestors. However, the coloured are now their own people with their own western culture. The history of coloureds is closely related to the history of the white, mainly Afrikaans speaking settlers, the Voortrekkers. Afrikaans is also the mother tongue of the coloureds, who for centuries

have been the servants and laborers of the whites, a status that had been fixed by the Apartheid regime of the 20<sup>th</sup> century. However, the peaceful political change of the year 1994, when Apartheid fell, also changed the situation for the coloureds in Namaqualand, giving them many more and new opportunities.

The people of Namaqualand, whether white or coloured, are friendly and helpful, especially toward travelers. They might not be the most enthusiastic and jolly people, as life in the semi arid Namaqualand can often be hard. However, they always love to have a braai, a South African barbecue with lots of meat, beer and whiskey, or to talk about the weather: a critical topic in a land between drought and wildflowers.

Namaqualand is part of the succulent karoo, one of 25 global biodiversity hotspots. This means the number of plant species that occurs here and nowhere else is especially high: 2 200! And every year new plant species are discovered. Only tropical rainforests, tropic coral reefs, or the close cape floral kingdom around Cape Town has a similar high biodiversity. But also wildlife in Namaqualand can be spectacular, especially if you are looking out for the small creatures, such as reptiles and small mammals. Namaqualand is also one of the worlds most important diamond mining areas. Below I describe the most important highlights of Namaqualand, introducing you to the different areas, starting closest to Cape Town, and finishing at the Orange River bordering Namibia.



**Knersvlakte: Visit the living stones**

Driving on the National road N7 north from Cape Town, you will come to the little town of Vanrhynsdorp after about 270kms. Here Namaqualand starts. Drive of the N7 to the filling station in Vanrhynsdorp to get some cool drinks, an ice or some biltong, South African dry meat. If you started late from Cape Town, you can also stay in a guesthouse over night.

Back on the N7 it is only 26km and you will see the Quaggskop Kwekery (Nursery) on your right (directly after the bridge). This is a nursery for dwarf succulent plants and surely worth a visit. You are now in the Knersvlakte. Vlakte is Afrikaans and means plain. The Knersvlakte is a plain glimmering

white of little quartzite stones. At first glance this might look boring, but the second glance it is astonishing: Many of the “stones” are no stones at all, but plants. The living stones, which became so popular in Europe in the 90s as indoor plants, are nowhere in the world as numerous as in the Knersvlakte. And there are many other dwarf succulents. But be warned: Most species are protected, and trying to smuggle them out of the country can cost you many thousand Euros or some years in prison. When you buy some at the official Quagsskop nursery, make sure you have all the necessary permits, if you want to take them home. To see these plants in nature is anywhere much more rewarding than to see them dry

up at home. And Quagsskop is just the place to do this. Ask for the map and keys for the hiking trail. Entrance fee is minimal (10 Rand per person) and the hiking trail, which could also be called an open air natural museum, is only a few kms away. You can park at the entrance and enjoy a walk through the Knersvlakte. The trail is around 5km long and you will need 1-2 hours, taking your time to admire all these

wonders of nature. One gets afraid to step on the living stones, which are sometimes more numerous than their mineral cousins, and also grow on the path. The best time to visit the place is in autumn to spring, but it is also worth going there in summer. Don't be scared off when the owner says there are no dwarf succulents now. While he is used to see thousands of them, for you seeing one living stone might already be worth it.



*Succulents and living stones in the Knersvlakte*

### **Loeriesfontein: Kingdom of the bulb plants**

From the nursery drive back 26kms to Vanrhynsdorp and turn left onto the R27 direction Nieuwoudtville. Before reaching Nieuwoudtville you will climb the Vanrhyns Pass, giving you a spectacular view over the Knersvlakte.

A few kms before Nieuwoudtville you can turn right and follow a 10km gravel road to the Oorlogskloof Nature Reserve. If hiking and spectacular views are your thing, than this is the place to be. There are 146km of hiking trails leading to a spectacular mountain landscape providing breath-taking views over the Knersvlakte and the Oorlogskloof River.

Nieuwoudtville and the next town Loeriesfontein are the kingdoms of the bulb plants. In spring, the meadows in this area are just full of them. The tourist information in Nieuwoudtville can tell you where the best places are to see the flowers, as this can change from year to year.

On the way between Nieuwoudtville and Loeriesfontein you can visit the Nieuwoudtville Falls, where the water of the

Doring River falls 100m below, and a rare sight in a dry land as Namaqualand. This is also a good place to have a rest or even a braai. Further on towards Loeriesfontein you can visit a quiver tree forest. The quiver tree is one of the symbols of Namaqualand. It is not a real tree, but an aloe. Their trunks are hollow and were used by the bushman as quivers for their arrows. While the quiver tree normally grows single, here you will find thousands of these aloes growing along dry hillsides, making a real fairy tale forest.

From Loeriesfontein you can take the R355 and R358 to get back to the N7 near Bitterfontein (160km from Loeriesfontein) and drive via Garies and Kamieskroon towards Springbok. An alternative and very lonely route is to take the R355 directly to Springbok. This will take you 260kms on gravel road through a very sparsely populated area. In fact, you will only pass three little villages and several farms on this way. The road partly goes through bushmanland, a flat area adjacent to Namaqualand and characterized by little summer rain and bushman grass (both in contrast to Namaqualand). It then leads into

the Hardeveld of Namaqualand with its amazing granite hills. If you anyway planning to stay several days in Springbok and explore the area from there (including

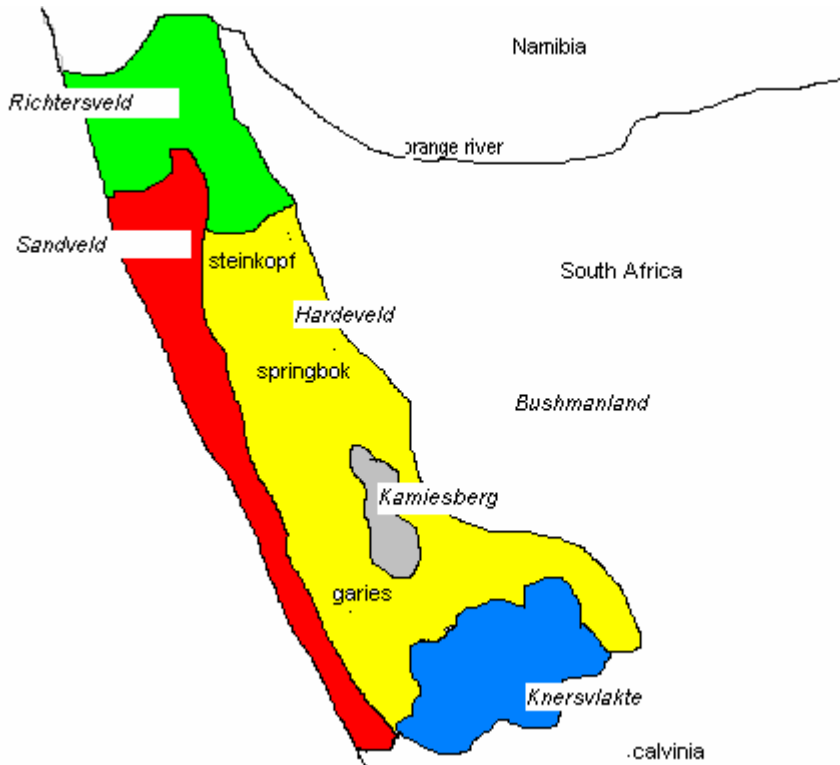
going again South on the N7), I would recommend this experience.



Wildflowers near Nieuwoudtville (M. Scriba)



Nieuwoudtville Falls (M. Scriba)



The different ecological areas of Namaqualand

### **The Kamiesberg and the Namaqua National Park**

On the N7 north from Vanrhynsdorp you will reach the little town Bitterfontein after 83km and Garies after another 62kms. You are now in the Hardeveld. The plains are replaced by granite hills covered in succulent shrubs. The granite hills and the often awfully blue sky with its little white clouds give this part of Namaqualand its special colors that must be a photographer's dream. Everything is covered in ochre colors that are so intense.

This is why a visit to the Hardeveld is also very promising and amazing in summer, although the autumn flowers give just this little extra. In winter and spring, the sky is often not so blue but covered in clouds, and the rain washes the ochre colors away. But this is the time of the wildflower display, and when you got a good year, this will be an impression you will never forget.

Everywhere in the Hardeveld and the rest of Namaqualand you can see tons of wildflowers after good winter rains, but there are some places better than others. As this can change from year to year, it is best to obtain information at the tourist information in Springbok.

While there is not much to see in Bitterfontein, the little town Garies at least



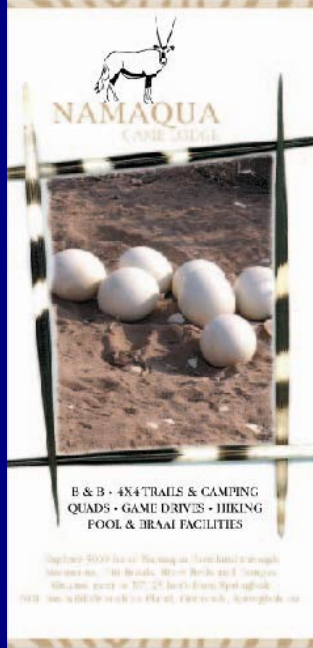
*Flowers in the Kamiesberg*

offers a small supermarket and accommodation. 45kms further on and only 67km from Springbok you will find the picturesque town of Kamieskroon next to the N7. There is no supermarket, but a small shop. And Kamieskroon is a very good place to spend a few days and explore the surrounding. Attractions are the Kamiesberg and the Namaqua National Park.

Kamieskroon is on the bottom of the Kamiesberg, which is with 1700m the highest peak in Namaqualand. This mountain catches the clouds coming from the sea, such that the Kamiesberg gets more rain than any other area of Namaqualand: 300mm a year. Not surprisingly, the vegetation here is much denser than elsewhere in Namaqualand. To explore the Kamiesberg, drive on the gravel road direction Leliefontein (which has a nice old church built in 1855 and a cultural camp with traditional Nama huts and meals) up the mountain, and either via Tweerivier or Studerpass back to the N7. The tourist information in Kamieskroon has a little pamphlet with a map and the description of different routes of the area. This is a very lonely and beautiful land. Take your time, stop the car, enjoy the views and go for a walk.

Kamieskroon is also the place from where to visit the new Namaqua National Park. Entering Kamieskroon go left at the first T-junction and follow a rather bad gravel road for approximately 20kms to the park. It is especially worth visiting the park in spring, when the wildflower display is nearly shocking! This park is very young and further attractions for tourists outside the spring are planned. In the future they might even release rhinoceroses here. The national park has a short but beautiful tourist route. If you have a 4x4, you can take a route through the entire park, which covers 60 000ha (information at the park entrance).

# Namaqua Game Lodge



Namaqua Game Lodge is situated next to the N7 25kms south of Springbok. The Game Lodge offers peaceful and secure accommodation as well as camping facilities, 4x4 trails and safe hiking for the tourist. Seven luxury en-suite rooms are available with morning coffee/ tea facilities as well a fridge and private entrance from the courtyard. Breakfast is served in the main dining room and well prepared home cooked traditional food is available on request. Game includes gemsbok, springbok, eland, and ostrich on 5000ha. For the explorer we also have to offer a day in the life of a shepherd; if anyone is interested in walking the trails of the Damara, the oldest herders in Africa. We have cut Namaqualand diamonds for sale at a price you can afford. Every stone comes with an international certificate. A diamond is a gift from South Africa.

**Namaqua Game Lodge, Lynnette & Dirk.**  
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**PO Box 880, Springbok, 8240, RSA.**

## **The Hardeveld: Springbok area and Goegap Nature Reserve**

From Kamieskroon it is only 67km to Springbok, the unofficial capital of Namaqualand. It is the largest town of Namaqualand, although it has less than 20 000 inhabitants, including the other small towns surrounding it. At first glance, Springbok looks rather unspectacular: A long main road and that seems to be it. However, Springbok offers everything you need: Well stocked supermarkets, accommodation from budget to luxury,

restaurants, an internet café, and easy access to many places of interest in Namaqualand. It is a good idea to stay here for several days, explore its surrounding little towns, Goegap Nature Reserve, and make excursions down to the sea, the Kamiesberg and the Namaqua National Park. Nearly everything is in reach of a one day excursion. So if you don't like changing your hotel every day (another promising and exciting alternative), make Springbok your Namaqualand Headquarters.



*Monument Koppie in the center of Springbok (P. Widmann)*

Springbok emerged from the farm Springbokfontein. The presence of the Springbok in the area (still present in Goegap) and a spring (fontein in Afrikaans) explains the name. It had long been known that Namaqualand is rich in copper, and in the second half of the 19<sup>th</sup> century Springbok had one of the first copper mines of the regions. The absence of water, trees (to melt the copper) and transport to Cape Town was a main obstacle for copper mining in these days. The farm Springbokfontein changed to a little village in 1852. The mine in Springbok was soon relatively unimportant compared to the other mines of the area, but luckily it became 1854 the place of the magistrate of the Cape Copper Mining Company, explaining why it became the dominant town of the area. More important copper mines were later opened in the towns of Okiep (8km away) and Nababeep (13km from Springbok). Main attractions of Springbok are the Dutch Reformed Church (built in 1921) and the Monument Koppie in the centre of the town, a small hill (koppie) with quiver trees. I recommend a visit to the Namaqualand Museum (Tel. 027 7188100) in the old Synagogue of Springbok. This local heritage museum has an atmosphere of the old days. It mainly consists of antiques from the old days, items used in everyday life, and description of some of the most important Jewish families of Springbok. Don't expect a fancy styled museum, but a lovely modest collection of reminders of the old days. Only 8km from Springbok on the N7 lies the little town Okiep. This Nama name either

means "place of the big tree" or "little spring". Formerly it was even more important than Springbok and had the world's richest copper mine in 1870. This mine attracted people from all over Africa and Europe, offering well paid jobs. In the 1870s, there was a real copper rush happening in Namaqualand, and Okiep was its center. However, in 1918 production ceased, the mine closed in the 1980s, and since then Okiep lost more and more of its inhabitants and importance. But you can still see the remains of the copper age in Okiep: The old copper mine smokestack and the Cornish Pump House with a fully intact steam engine, built in 1882 and used to pump water from the mine.

From Okiep it is only around 10km to Concordia, formed as mission station in 1852. Also here a copper mine was established later. The Orbicule Koppie is it that makes a visit worth to this little town. It is somewhat out of town. When you enter Concordia, look out for a sign on your left. This koppie or hill consists of orbicular diorite, a very rare mineral. It is the result of granite magmas separating while in a fluid state, with one granite type forming ovoid "orbs" showing concentric internal banding, within a ground mass of slightly different composition. It is a very lovely place, with nice scenery and lonely quiver trees. I would recommend a picnic here.

Nababeep is just north of Springbok. It is about 13kms away, on the same turnoff from the N7 as to Okiep, but to your left instead of your right. Also Nababeep had an important copper mine that closed just a few years ago. Here you can visit the mining museum offering information about the copper mines and copper rush of Namaqualand, with the steam locomotive Clara being on display (Mon-Fr. 9.00-13.00).

One of the main attractions of the Springbok area is the Goegap Nature Reserve, only 15km out of town (direction airport). Goegap offers different kinds of accommodation (camping, bush-hut, guest house), lovely picnic sites, two hiking trails with a lovely view over the reserve, and a tourist route. The 4x4 route up the mountains is a real insider tip: An amazing route through a beautiful landscape with quite some challenging parts. You might also be lucky and see the Hartmann's mountain zebra here. Goegap is the only place outside

Namibia where you can see it in its natural habitat. Other game includes gemsbok, springbok, ostrich, klipspringer, steenbok, duiker and rock hyrax. If you stay in Goegap, you should seek permission from the office to make a night drive (you have to bring your own spot-light, which can be bought in Springbok). Goegap is the best place in the world to see aardwolves and aardvarks. And Goegap is of course the perfect place to see small mammals, if you are interested in this. As there are no

dangerous animals in Goegap, you are allowed to leave your car everywhere and go on a walk. Striped mice can be seen along dry riverbeds and at the camping site. Look also out for the dense stick lodges built inside shrubs: These are the nests of bush karoo rats, which are also numerous at the succulent garden at the office of the nature reserve. Elephant shrews can be seen in shrubby habitat around dry riverbeds (round eared elephant shrew) or in the rocky areas of the hills (rock elephant shrew).



*Wildflowers in Goegap*

The wildlife of Goegap is amazing, but it owes its existence to its floral treasures. The succulent garden at the office and the koppies next to it with planted aloes is a must when you visit Goegap. This is the only place outside the Richtersveld where you can see the halfmen growing, a spectacular succulent (see below). The office also offers information about the flora and fauna of Namaqualand and video films presentations about the area (outside the tourist season you have to ask them to play the video for you; the staff is very friendly and helpful).

In spring, Goegap is covered by a colorful coat of wildflowers, the picnic spots being next to it. However, if you are interested in nature, it is worth visiting Goegap during the entire year. You just have to bring your time, stop your car and go on a little walk. Everywhere are little things to be discovered, a bush karoo rat nest, a small succulent or a little autumn flower. Sitting in your car you will miss all of this, but on a walk you will realize that there is much more to be seen than it seems at first glance.

## Goegap Nature Reserve

**Accommodation: Guesthouse, bush hut, camp site.**

**Tel: +27 27 7121880**

**Fax: +27 277181286**

**Sandveld: Diamonds at the Atlantic Ocean**

The Sandveld is a 30km wide stripe along the coast. As its name says, it is

characterized by fine white sand. Rainfall is low with 50-150mm a year, and the vegetation is characterized by low growing succulents and succulent shrubs.



*Succulent in the Sandveld.*

The cold Atlantic Ocean, which comes from Antarctica, has a great influence on the weather of the Sandveld. Compared to the rest of Namaqualand, it is often quite cool here. No wonder that the Namaqualanders flee to the coast on hot summer weekends. As a result, several places offer accommodation at the sea, especially in Port Nolloth. Port Nolloth has the charm of a little peaceful holiday destination at the sea. You will also find restaurants offering delicious sea food here. Grayfish is the local specialty.

Alternatively, you can take your own wood and fish, and braai it just outside town, north of McDougall's Bay (next to Port Nolloth), where there are some public braai areas. The scenery of the often wild sea is spectacular. But bring some sunshade. While Port Nolloth is the place of choice if you want to have a few nice and cool days at the sea, Hondeklipbaai is the insider tip. This little harbor was once the place from

where the copper ore of Namaqualand was exported after being transported by ox wagon along the Messelpad Pass. Much smaller and much quieter as Port Nolloth, this is the ideal place to relax. Spending a weekend here with a braai at the beach should be as relaxing as a weekend can be. To get there, drive from Springbok direction Kamieskroon on the N7. After about 10kms, there is a right turn onto a gravel road. You will drive through parts of the Namaqualand National Park. Take your time, make a stop and have a little walk, admiring the dwarf succulent shrubs that grow here. To get back to Springbok, you can take the same road back or drive via Kamiskroon or even Garies, if you want to see more of the "outback" of Namaqualand.

The Namaqualand coast is famous for its grayfish, but even more precious are its diamonds. A good day excursion from Springbok is to the mining town of Kleinzee. To get to Kleinzee take the R355, a very bad gravel road. At least the scenery is nice. Start very early in the morning and have breakfast after 45 minutes on top of Spektakel Pass, which is really offering a spectacular view over the plains below it. As diamonds are very precious and diamond smuggle not unheard of, security is strict. Thus, you will have to make an appointment with the mine several days before visiting Kleinzee: Tel: 027 8072999, [nmtourism@debeersgroup.com](mailto:nmtourism@debeersgroup.com). You can go on a half-day mine tour, which shows you what great effort it is to get these little gemstones out of earth. One highlight of the tour is the visit to the seal colony (which cannot be visited outside tours). More than 400 000 fur seals breed at the coast of Kleinzee. To get back to Springbok you can either take again the R355, or you can drive via Port Nolloth.



*Kleinsee: Big plants to get diamonds out of the earth and one of the world's largest fur seal colonies.*

**The Namaqualand 4x4 route: From Pofadder via Pella into the Richtersveld**  
Pofadder, Pella and the Orange River at Violsdrift can also be visited with a normal car, but the road along the Orange River is only suitable for 4x4s. To drive the 4x4 route you need a permit which you can buy at the tourist information in Springbok. You will also get a detailed map and information about camping sites. The first part (Pella to Violsdrift) is 328km long, the second part (Violsdrift to Alexander Bay) 248km. You can either drive both or only one part. East of Springbok the N14 leads 1300kms to Johannesburg, but to Pofadder it is only

160kms. Pofadder is not in Namaqualand anymore, but in Bushmanland, which receives summer rain. About 20kms before Pofadder a gravel road goes from the N14 left to the village Pella. This is an old mission station with probably the smallest cathedral of the world. In the 1870s this church was built by French priests with only the help of an encyclopedia, and finished after seven years in 1885. The amazing view of this cathedral at this unexpected place in the desert, surrounded by palm trees makes Pella worth a visit even for people like me, that normally do not pay visits to churches.



*Cathedral in Pella*

Follow the road from Pella north through a breath-taking gorge (also possible with a normal car) to the Orange River. The water of the river gives life to surrounding gardens and fields. If you have a 4x4, you can follow the Namaqua 4x4 route from here along the Orange River to Vioolsdrift, where the N7 ends at the border to Namibia. From there you can follow the 4x4 trail further through the beautiful Richtersveld desert to the Atlantic at Alexander Bay, and visit the Richtersveld National Park (see below). For the entire Namaqua 4x4 tour you will need a minimum of 3 days (2nights). If you don't have a 4x4, you still can explore the open and lonely wilderness of this area, and I would clearly recommend this tour.

Drive back from the Orange River to Pella, and take here the gravel road west direction Goodhouse. You will drive through a wild and arid land only inhabited by quiver trees and goats. At the turnoff to Goodhouse (approximately 110kms after Pella) you can either turn right to Goodhouse (20kms) and visit its fields at the Orange River. Or turn left, and you will get to Concordia after 80kms, then to Okiep and back to Springbok. The tour from Springbok to Pella on the N7 and back via the gravel road can be done in one day. Alternatively you can find accommodation in Pofadder or Pella. Pofadder has a small supermarket, but it is better to bring supplies from Springbok.



*Between Pella and Concordia: the "outback" of Namaqualand. Here a quiver tree with a nest of sociable weaver birds.*

### **The Richtersveld**

On the N7 direction north you will come to the town of Steinkopf after 50kms. Here is the turnoff to Port Nolloth on the Atlantic and the gate to the Richtersveld. The

Richtersveld is a stony mountain dessert, one of the last wildernesses of South Africa. It is famous for its enormous biodiversity, especially of succulent plants. Best time to visit is spring, early summer and winter.

Summer can be very hot. The Richtersveld National Park can only be visited if you have a 4x4, as the roads are too tough for normal cars. If you have a 4x4, you really should visit. Otherwise you can book a tour in Springbok. The Richtersveld is a lonely and beautiful place, but the loneliness and with this some of its beauty will soon be lost, as the park gets better developed. Now you can camp all by your own at the banks of the Orange River or in the middle of the mountain desert. You might not see another car at all while you are there. To fully experience this amazing place, you should get up very early in the morning and go on a

walk up the mountains, before it gets too hot. Driving the interesting and partly challenging 4x4 routes will show you again and again breath-taking views and lead you to wild landscapes. But you should also stop ones and again and go on a short walk. Then you will discover all the small succulents that make a living in this desert, which you would miss if you only sit in your car. You should spend 2-3 nights in the park. Don't make the mistake to camp only at the river: A night inside the desert with its silence and sparkling stars will not be easily forgotten.



*The halfmens is a spectacular succulent of the Richtersveld*

One attraction of the Richtersveld is the Halfmens, an up to 2m (but normally rather 1.5m) high succulent that looks like a human gazing into the distance. They always grow with their head pointing north, to make sure that the ephemeral (short living) leaves and flowers get as much sunshine as possible during the brief winter growing season. Nama folklore explains that a tribe which once occupied a more giving land than the

Richtersveld in the north was driven southwards after a bloody war. Overcome by grief and longing for their homeland, a few among the tribe paused at the mountains of the Richtersveld to gaze one more time back north. The gods took pity on these and turned them into half-humans – halfmens – to comfort them with a distant view of their lost homeland for eternity.



*The Richtersveld is a mountain desert and one of the last wildernesses of South Africa*

The way to and from the Richtersveld National Park can also be driven with a normal car and you should not miss this experience of another “outback” of Namaqualand. You can combine it with a visit to Port Nolloth. To get to the Park entrance, drive from Springbok via Steinkopf to Port Nolloth (145km; you can spend the night here) and further along the coast to Alexander Bay, a diamond mining town. Along the coast you might see funny boats with big tubes like trunks hanging into the water. These are mining boats, sucking gravel from the sea floor to check it for diamonds. From Alexander Bay you drive 90km along the Orange River on gravel road to the park entrance at Sendelingsdrift.

If you don't have a 4x4, you still can visit Sendelingsdrift, but cannot enter the park. The office of the national park offers interesting information about the area and the staff is very helpful. After visiting Sendelingsdrift, drive back and after about 40kms turn left to Kuboes (57km from Sendelingsdrift). From here you can drive the back-roads (all gravel) either via Eksteenfontein or Lekkersing back to the road between Port Nolloth and Steinkopf (approximately 100kms). The wild and lonely desert area is amazing. If you want, you can spend a night in the small Nama village of Kuboes (Tel: 027 8312095) or Eksteenfontein (tel: 027 8517108) and meet the Nama people, eat their traditional food and learn about their culture.

### **The Orange River**

To get to the Orange River, you can take a road directly from the Richtersveld National Park along the river to Vioolsdrift (if you have a 4x4). Otherwise drive from Springbok on the N7 via Steinkopf to Vioolsdrift, the border to Namibia (113kms). 50 meters before the border post, turn left, and you will find a gravel road following the river. Here you will find several camp sites, ideal places to spend a relaxing day, cool down in the water, quickly swim to Namibia (the river is not very wide) and have a beautiful braai. You can also rent a canoe to explore the river. Tour operators offer canoe safaris along the river (seek information at the tourist information in Springbok).

After the living stones of the Knersvlakte, the bulb plants of Nieuwoudtville, the Kamiesberg and the Atlantic Ocean, the copper towns around Springbok and the beautiful Goegap Nature Reserve, the wilderness and loneliness of the area between Pella and Goodhouse as well as the Richtersveld wilderness, the Orange River is the perfect place to rest and process all the impressions from Namaqualand. From here you will either have to go back to Cape Town and back home. Or maybe you decided to see even more of southern Africa, visit Namibia, the Kalahari or the Kruger National Park, to see the big African animals? If so, then you will find some basic information in the box below.



*The Orange River is the border to Namibia*

#### FURTHER INFORMATION

**Maps:** I recommend the MapStudio street atlas of South Africa, which can be bought at most bookshops and filling stations in Cape Town.

**Tourist Information:** All towns in Namaqualand have a tourist information and the one in Springbok is quite competent and helpful.

**Internet:** Check out the following pages:

[www.south-north.co.za](http://www.south-north.co.za)

[www.northerncape.org.za](http://www.northerncape.org.za)

[www.diamondcoast.co.za](http://www.diamondcoast.co.za)

**Literature:** The book from Cowling and Pierce about Namaqualand can be strongly recommended.

Cowling R, Pierce S (1999) Namaqualand: A Succulent Desert. Fernwood Press, Vlaeberg, South Africa

#### OUTSIDE NAMAQUALAND

**Cape Town:** The most beautiful city of South Africa. Go to Table Mountain, the Waterfront (shopping and restaurants), Robben Island (Nelson Mandela was imprisoned here) and the Cape Peninsula National Park (Cape of Good Hope Nature Reserve) to see the special Fynbos flora of the Cape and the Cape of Good Hope.

**Augrabis National Park:** Only 320km east of Springbok, on the N14 direction Upington. Augrabis has an amazing gorge and waterfall and a beautiful camping site.

**Kgakagadi National Park (Kalahari):** 650km from Springbok. Drive east on the N14 to Upington (400kms) there turn north for the park. The Kalahari is in my opinion the most beautiful national park of South Africa. You can see lions, leopards, hyenas (spotted and brown), gemsbok, springbok, giraffes, hartebeest, and ostrich. Unfortunately it is too dry for elephants, rhinos and buffaloes, but the scenery is just amazing. You should spend 4-7 days in the park.

**Kruger National Park:** If you are flying via Johannesburg (and most of you will), you can make a stop over here and book a trip to the Kruger National Park to see all the big African animals. Best is to do your bookings via internet from Europe. Tours are around 5 days, depart from and come back to Johannesburg.

**Namibia:** It is only a 1.5 hours drive from Springbok to Namibia, a country that has much to offer: Fish River Canyon and the red sand dunes of Soussusvlei in the South. In a long day drive from Springbok you can reach the small and clean capital of Windhoek in a day (800kms from Springbok). From here it is only 3-4 more hours to Etosha National Park with its amazing wildlife. Especially in the dry season (June – October) you are sure to see plenty of elephants and rhinos. With some airlines you can fly from Europe to Cape Town and fly back to Europe from Windhoek, so you won't have to make a long trip back to Cape Town.

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# NEWS AND INFORMATION ABOUT PLANTS AND ANIMALS

## ELEPHANT SHREWS IN GOEGAP

By Annette Wiedon and Carsten Schradin

The small animal is sniffing excited with its trunk like extended nose – by observing this you see easily what gave the elephant shrew its name. The elephant shrew entered the trap and is now waiting for exiting things to come. All this excitement is in vain. It is simply taken out of the trap, weighed and sexed. To identify it during later trapping sessions it gets an ear tag with a number on it. That's it and the elephant shrew can be released back into the vastness of Namaqualand

The species occurring at our field site in the Goegap Nature Reserve is the round-eared elephant shrew (*Macroscelides proboscideus*). Despite the length of the name and nose it is measuring just 23 cm from nose to tail. Adults can weigh up to 45 g. We trap mainly for striped mice, but sometimes elephant shrews go into the traps as well. As we plan studies about this species in the near future, data of the trapped individuals are already collected. If you continue reading, you will find some interesting details about this species!

Elephant shrews occur only in Africa and here mainly south of the Sahara desert. They belong to the order Macroscelidea although for a long time they were wrongly classified as insectivores. However, besides ants, spiders, termites and other small invertebrates they also feed on green parts of plants, young roots and fruits. Now they are regarded as omnivores. The herbal part of the diet is about 50%. In winter months, when insects are hardly found, the herbal part can even rise up to 60%. Each food item is first collected in the cheek pouches and eaten later in a safe hiding place. Elephant shrews do not need to drink. They cover their water requirements with the food. The specialized caecum helps to minimize water loss over excretion.

For refuge elephant shrews prefer holes in the ground which either already exist or are

burrowed by themselves, especially if the ground consists of sandy and loose material. But also dense shrubs or crevices can offer refuge to them. They usually live alone in their shelter, which is why they could be wrongly specified as a solitary species. However, in fact they are monogamous. One pair shares a territory and defends it against other pairs. But there is no pair bond and the pair spends only very little time together. Social contacts appear just for short periods, e.g. for mating or while a mother is rearing her pups.

Elephant shrews frequently change their dwellings. By doing this the animals are moving very fast with a ricochet locomotion and they can reach speeds up to 20 km/h. In contrast, foraging is rather slow. Elephant shrews are active both at night and during the day, but their activity is highest during dawn and dusk. The reasons for this could be a better protection of predators as well as the possibility to minimize water loss by avoiding the high temperatures during hot summer days. The high flexibility in their activity and as well their special foraging behaviour reflect the tolerance to the occupied habitats which are usually arid or semi-arid.

One special feature of *Macroscelides proboscideus* is the ability to fall into torpor. That means, the elephant shrews are able to reduce significantly their metabolic rate and body temperature, in some extreme cases even down to 10°C! The torpor is initiated during cold winter nights and in the case of acute food deficiency to keep energy demands as low as possible. The animal can stay in this low energy-level for a maximum of 18 hours and the reactivation seems to be synchronized with the sunset. The exploitation of radiant heat plays an important role for passive reheating. The reproduction is not restricted to a few months, like it is the case for most of the

mammals, but can occur around the whole year. Most of the juveniles (77%) trapped by BERNARD et al. (1995) are nevertheless trapped in the months September until February.

Apart from the round-eared elephant shrew, several more species of the order Macroscelidea exist, which are also restricted to Africa and also attract increased interest. The number of papers which are dealing with elephant shrews increased during the last few years. The contributions

to the topic of behaviour are particular numerous, reflecting the general rise of this research field. All together, until 2002 750 papers dealing with elephant shrews have been published. In comparison to this there are a negligible higher number of articles about the so much higher African elephant (*Loxodonta africana*, 1050 publications). The research team of the Goegap Nature Reserve is trying to reduce this distance further.



*The round-eared elephant shrew is relatively common at our field site. The individual here is basking in the evening sun.*

In the next FSM-TIMES you will learn more about elephant shrews and how we will try to find out why these animals are monogamous, although the male and female of a pair do not really like each other.

## MOUSE PORTRAIT MALE 79

By Carsten Schradin

<b>Mother:</b> ?	<b>Father:</b> ?
<b>Trapped first:</b> 16. October 2003, as adult big male	<b>Trapped last:</b> 14. September 2004
<b>Age:</b> > 2 years	
<b>Partner:</b> F286	
<b>Children:</b> 1 son, 3 daughters	<b>Grandchildren:</b> ?

Male 79 was a miracle. We trapped him at the dry riverbed near the nest of female 68. But when we equipped him with a transmitter, we realized that he was not living in the dry riverbed. This was in 2003, the year with a very severe drought. Mouse food mainly grew down at the dry riverbed, and all mice had their home ranges there. But M79 lived further up the hill, at the edge of a dry and sandy plain. It didn't seem as if there was growing anything except a few shrubs, so why was he there?

At the dry riverbed there was something else than food that should be important for a mouse male: mouse females! The females 52 and 68 had their territories here, and the other males, such as M69, visited them regularly. Why not M79? It seemed like he avoided all other mice. He weighed 59g and was thus somewhat lighter than M69 with 65g. Did M69 chase M79 away, did he push him to the edge of the land of mice? Maybe M70 just wanted to be left alone? Maybe he was a mouse philosopher, thinking about the meaning of mouse life as a hermit in the desert?

An interesting hypothesis, but not very scientific. And there was another fact that made M79 different from all other males of this year: He always slept in the same shrub. This was a large *Lycium* shrub that at least offered some food. But maybe there was more in the shrub that kept M79 here? The shrub of M79 was at the furthest edge of the field site. If one wanted to observe this nest in the morning, one had to leave the research station around 5:30. This and my laziness might explain why it took me so long to go there one morning and see what there was to see. All I expected was to see M79 coming out of the nest at 6:00, and immediately running away for foraging and

maybe searching for females. This is what all other males were doing this year. In 2003, mice were not living in groups, because population density was extremely low after the severe drought, which killed around 98% of mice! Females had their own nests, and males were visiting female after female. In 2003, males were not members of group, but were loafers, roaming around on the search of females. This is also the reason why all males – except M79 – were sleeping every night at another place.

The sun was rising and warming the nest of M79. I was surprised to see what the sun rays revealed to me: M79 came out of his nest, but not alone. A large female, presumably his mate, was next to him, as were 4 youngsters, the offspring of the pair. This explained everything: M79 was not a floater and roamer, he was a family male. In fact he was the first male at our study site that was found to live in a monogamous pair and this for the entire study period. He was not a mouse philosopher, but a responsible family man. Later we would find a few other males that were also choosing monogamy over roaming, demonstrating ones more the high social flexibility of the striped mouse. After the drought of the year 2003, population density increased again. Thus we had to decrease our field site, as otherwise there would have been too many mice and groups to watch for us. Also the territory of M79 was outside our study area in 2004. We nevertheless did some trapping there to see who was still living here. And we found again M79, at nearly exactly the same place where he had his nest the year before. And we did not only trap him, but also his female partner. Both had survived for another year to the breeding season of 2004, and both were in their old territory. Although we do

not know how exactly their lives continued, it is a nice idea that the pair stayed together for more than one year, nearly an entire

mouse life: "And they lived happily ever after"!?

## BIRD PORTRAIT: THE OSTRICH (*STRUTIO CAMELUS*)

We have the largest bird of the world in Goegap, and everybody knows it: the ostrich. The ostrich is easily identifiable and everybody will recognise it. He occurs in flocks that can be up to 40 individuals, but in Goegap flocks are much smaller. Maximum size is one male, 2-3 females, and plenty of chicks. This bird is very good adapted to desert environments, but the dry summers of Namaqualand can be tough for even the ostrich. In the dry summer of 2000/2001, nearly 80% of the ostriches died. But now the population has recovered, and on evenings one can often see some ostriches joining herds of gemsbok.

The ostrich is the fastest runner of Goegap, reaching up to 60km/h. Adults are strict vegetarians, but chicks also like protein rich insects. The breeding season in Goegap is spring to early summer, when food is abundant. Nests can have a diameter of up



to 3m and several females lay their eggs in the nest of one male. As population density in Goegap is low, males have not as many females as in other areas, and nests typically are only 1m in diameter.

## SOLIFUGAE

*By Carsten Schradin*

A bloodcurdling cry came from the kitchen. I was anyway on my way there to see if dinner was ready, but now I was walking even faster. Arrived at the kitchen, the picture I got was grotesque to comical: Brigi was standing on a chair, crying like hell. Lars was standing on the chair next to her, his eyes restlessly searching the kitchen floor. Daniel had one leg on the third chair; the other one was still on the floor. As he saw me coming he got braver and came down from the chair.

The eyes of the three of them told me that there must be something on the floor causing all the excitement. And then I saw it: It was big, large as my hand, had very large legs and was running very hectic around the kitchen, first behind the stove, then the fridge and then the couch. First I thought it might be a big scorpion, but these are normally not so fast.

I got a plastic tank from the veranda and soon Daniel and I had caught the troublemaker. It was a solifugae! These are relatives of spiders and scorpions and look very similar to spiders. However, they have no poison and are totally harmless. That means, as they do not have poison, they have large mandibles, which they use to smash their prey. I do not want to get bitten by a hand size solifugae. They are active hunters, running around and eating everything that comes into their way.

Now it was in the tank and we wanted to get some pictures. I opened the lid, we took pictures, the solifugae took the opportunity to escape, and Brigi reacted with another loud scream that would wake the dead. This happened once more, when I decided to leave the solifugae in the tank, to protect my ears.

The next week we made a night drive and saw another individual of this very large species. The same night Brigi was sitting with a colleague at the veranda of the hospital where Brigi is working. Suddenly the

colleague screamed that there was something big, dangerous and creepy running around. Brigi had a look and then calmly said: "But that's only a harmless solifugae!".



*The solifugae is large and quick, but harmless for humans.*

## PLANT PORTRAIT: DEVIL`S THORN (*TRIBULUS ZEYHERI*)

*By Carsten Schradin*

The choice of the plant of the season was easy. One just had to have a look at the landscape, which was very yellow indeed at many places. The yellow came from the flowers of ten-thousands or more of devil's thorns. After the immense rain in January, this plant was popping out nearly everywhere in Goegap. At our field site it became a dominant plant. However, it might not be very palatable, as the mice did not eat often from it. At other places this species became even more dominant and some sandy plains were totally covered by it. This lovely plant got its bad name from its fruits: those have many strong, narrow, conical

spines.



# VISITORS

*By Carsten Schradin*

The 20<sup>th</sup> of January we had a soccer tournament in Goegap, arranged by Daniel. The teams were:

- The Goegap Workers
- The Mouse Observers
- The Gladiators from neighbouring Fonteintjie
- The Gat Vat Boys (Fun Boys) from Springbok.

The matches were fun and fair. The Mouse Observers were fair hosts and allowed the Goegap Workers to win. The Gladiators beat both the Workers and the Observers and were thus the winner of the tournament. The interesting match for place three between the Observers and the Fun Boys was won by the Observers 5 - 0.

After having lost of fun with the ball, we had even more fun with a braai. Since then we are meeting every Tuesday afternoon to play soccer and have a lekker (Afrikaans slang for nice) braai.



End of February, Mike Scantlebury visited for 10 days. He was measuring oxygen consumption of free ranging mice at different natural basking sites. Basking is an important activity for mice and we wanted to know how much energy they can save by heating up passively in the sun instead of warming up actively by metabolic heat. This is part of a larger study on activity period and basking in the striped mouse.

# CONFERENCES, PRESENTATIONS AND PUBLICATIONS

By Carsten Schradin

Two popular science articles (in German) and three scientific articles have been published during the last three months. The

abstracts of two of the scientific articles have been already published in the last FSM-TIMES, the other one is presented here.

## Popular science:

Schradin; C. 2005. Im Jahr der Maus. Teil 1: „Kindheit und Jugend“ von Striemengrasmaus-Weibchen Nr. 23 . *Rodentia* (März)

Schradin, C. 2005. Namaqualand: Ein Biodiversitäts- und Kleinsäugerhotspot. *Rodentia* (Januar)

## Scientific publications:

Schradin C, Pillay N, 2005. Intraspecific variation in the spatial and social organization of the African striped mouse. *Journal of Mammalogy* 86: 99-107..

Schradin C, Pillay N, 2005. The influence of the father on offspring development in the striped mouse. *Behavioral Ecology* 16: 450-455.

You can download this article under:

<http://beheco.oupjournals.org/cgi/content/full/ari015?ijkey=26SLs02HNfGZY&keytype=ref>

Schradin C, Pillay N, 2005. Demography of the striped mouse (*Rhabdomys pumilio*) in the succulent karoo. *Mammalian Biology* 70: 84-92

The striped mouse (*Rhabdomys pumilio*) is widely distributed in southern Africa, inhabiting a wide range of habitats. We describe the demography of the striped mouse in the arid succulent karoo of South Africa, and compare our findings with those of published results for the same species from the moist grasslands of South Africa. In both habitats, breeding starts in spring, but the breeding season in the succulent karoo is only half as long as in the grasslands, which can be explained by different patterns and levels of rainfall; the succulent karoo receives mainly winter rain and rainfall is much less (about 160mm/ year) than in the grasslands (>1000mm/year) which experience summer rain. Population density increased from 37 (start of breeding season) to 171 (end of breeding season) mice per ha. A high yearly survival rate of 27% during our study from summer to the next breeding season resulted in a population density that was 10 times higher in the succulent karoo than in grasslands. The comparatively high population density may result in habitat saturation and thus forced philopatry, promoting group living in the succulent karoo, which contrasts with the solitary life-style exhibited by populations in moist grasslands.

# FUNDING OF RESEARCH: CALL FOR DONATIONS

## SUBSCRIBERS DONATION

We appeal to all subscribers of the FSM-TIMES to donate 80 Rand (10 Euro, 15 dollars) a year for research on the socio-ecology of small mammals in Goegap. Donations of more than 80 Rand are welcome and donors of 400 Rand (50 Euro, 75 dollars) will be mentioned in the next FSM-TIMES.

Donations will be used for the following purposes:

Scientific research on small mammals in Goegap, especially smaller research projects such as Diploma and PhD theses, which have difficulties in raising funds elsewhere.

Improving the infrastructure of the research Station.

Running costs of the research station.

In the last issue of the FSM-TIMES of every year we will publish how much we received in donations and how the money was used.

Account details for donations

Please state "L.2112"-as reference on all deposits and cheques.

### South Africa

Standard Bank

Branch: Braamfontein

Account name: Wits University  
Foundation

Account No.: 002900076

Branch code: 004805

Swift code: SB ZAZ AJJ 00480502

**Please state L.2112 as reference.**

### Germany

Carsten Schradin, KSK Esslingen, BLZ 611  
500 20, Konto Nr. 7434686

### Switzerland

Carsten Schradin, ZKB, Konto Nr. 117-  
0028.726.

## Acknowledgements

We are very grateful to the following people who donated and who's assistance contributed to the continuation of our research project.

### Donations of Euro 500 (Rand 4000) or more

Dr. Gustl Anzenberger, Zürich, Switzerland.

## SPONSORS

Sponsors of large amounts can choose how they money should be spend. There are different options for sponsors:

**Research Station Sponsor:** Donations of R1000.00 or more (150 Euro, 200 dollars) can be used to improve the infrastructure of the research station by buying furniture. Especially beds for students, cupboard and shelves are still needed.

**Car Sponsor:** A very generous donation of R 160 000 (22 000 Euro or 30 000 dollars) could be used to buy a 2x4 vehicle for the research station that would be available for all researchers.

**Computer Sponsor:** A donation of 5000 Rand (650 Euro, 900 dollars) could be used to purchase a computer or laser printer for the research station.

**Solar Panel Sponsor:** One big problem at the research station is the shortage of energy. With a donation of 8000 Rand (1000 Euro, 1500 dollars) a new strong solar panel could be bought which would provide the students office with power to use computers.

**Thesis Sponsor:** A donation of R 8000 (1000 Euro, 1500 dollars) could be used to support a diploma, masters or PhD thesis. Different projects are available. Please send an email when you are interested to support a student to receive more information on possible projects.

If you want to become a sponsor, please write an email to: [info@stripedmouse.com](mailto:info@stripedmouse.com)

# THE MOUSE'S TAIL

## VISIT TO THE KALAHARI

Beginning of March we spent two days in the Kalahari at the meerkat project of Prof. Clutton-Brock. It was amazing to see the big scale of the project and how good the

meerkats are habituated to the observers. Very encouraging was the high opinion of Prof. Clutton-Brock about our own striped mouse project.

## MOSQUITOES

Did you ever want to know how it is to share your bedroom with hundreds of mosquitoes? If so, you should have spent the last three months in Goegap. The rain was also a present for them. Rooms not treated with mosquito coils, especially the bathroom, had a funny humming sound this summer, made

by huge swarms of mosquitoes. With the help of insect repellent and mosquito coils we could avoid to be eaten alive. This also helped getting up early in the morning. At 6:00 the mosquito coil normally had burned down, and hundreds of enemies were entering our premises!

## POOL PARTIES

In March David spent 4 weeks as Reserve Manager in Goegap. As he was staying at the reserve manager's house with a swimming pool, we decided that it was a good time to visit him. We had altogether 3 pool parties with a lekker braai (South

African English for delicious BBQ) at his place. David and I made sure that everyone got wet during these sessions, i.e. waves of water were leaving the pool in direction of the land rats.

## WATER TANKS

In March the water tanks at the research station were replaced. Previously we had a tank of 3000 liters for the bathroom, now we have two tanks of 5000 liters each, adding up to 10 000 liters. Last year we often had to refill the tank, as 3000 liters was just not enough for the 7 people living in the

research station. However, after the tanks had been replaced, the water pressure decreased dramatically, i.e. the caster was not working and for 2 weeks we had only cold showers. Fortunately the problem is now solved: an air block, which we were able to remove from the tubes.

## COMING UP IN THE NEXT FSM-TIMES

The title in the next FSM-TIMES is about elephant shrews and a proposed PhD project that will try to find out why these animals are monogamous, although the male and female of a pair do not like each other.

## SGM-SPIEGEL

The FSM-TIMES is also published in German, as the SGM-SPIEGEL. If you want to receive the German version, write an email to: [info@stripedmouse.com](mailto:info@stripedmouse.com), please write „SGM-SPIEGEL Abo“ into the subject of your email