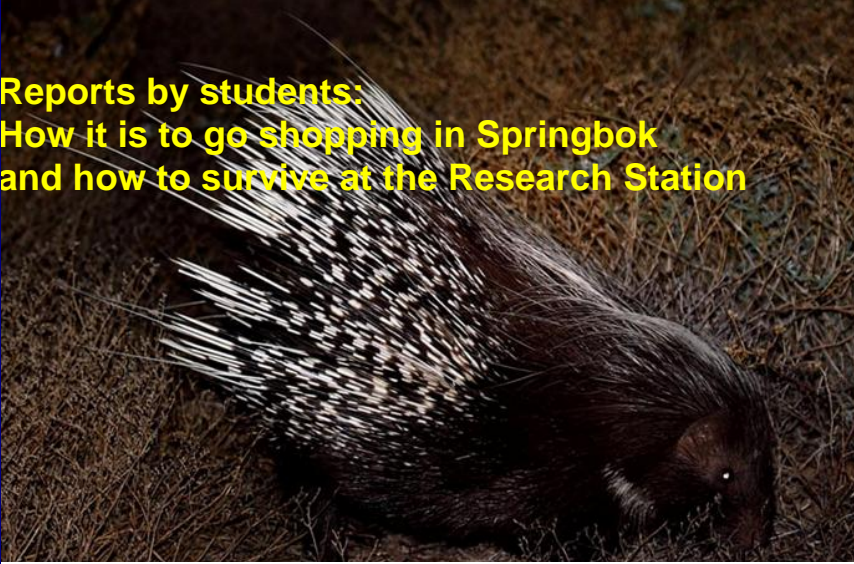


FSM-TIMES

FourStripedMouse



Title:
The Cape Porcupine
Der Erdwolf



Reports by students:
How it is to go shopping in Springbok
and how to survive at the Research Station

EDITORIAL

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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 20th 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 lays 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 quite and mountain zebra, gemsbok, springbok, aardwolf, mice and mice researchers live in peace.

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WELCOME TO THE TWENTY-FIRST ISSUE OF THE FSM-TIMES!



Dear Reader,
liebe Leser,

This is the first combined English-German Newsletter of the Succulent Karoo Research Station. To reduce the time invested in preparing this newsletter, we decided to have only one version for both English and German readers. This considerably reduced the time I had to invest in it, from 2 to only 1 afternoon. Most articles in this newsletter are in English, but there

are also 3 German articles. I hope you enjoy reading!

Dies ist der erste Newsletter, welcher den deutschen SGM-Spiegel und die englische FSM-Times zusammenfügt. Dadurch konnte die Zeit, die ich zum erstellen des Newsletters brauchte, von 2 auf 1 Nachmittag gekürzt werden. Sie finden in diesem Newsletter englische, aber auch drei deutsche Beiträge (Seite 12 bis Seite 19). Vor allem den deutschen Artikel über den Erdwolf kann ich Ihnen sehr

empfehlen! Ich hoffe, Sie haben viel Spass bei der Lektüre.

Carsten Schradin

Beste Grüsse,
Kind regards,

NAMAQUALAND-WEATHER

By Ivana Schoepf

The last three months	July	August	September
Minimum temperatures			
night	6.0	4.8	5.6
day	14.0	10.7	14.9
Maximum temperatures			
night	19.9	15.7	14.7
day	27.5	26.9	26.1
Nights with frost	3	5	8
Rainfall in mm	20.0	13.2	6.0
Days with rain	5	6	4

THE PEOPLE IN GOEGAP

By Ed Yuen

Another flowers season has begun and the research station is, once again filled up with students and field assistants, getting ready for the approaching breeding season of the striped mice. In July, Moritz Rövekamp, a student from the University of Zurich arrived in Goegap. Moritz stayed with us for only 7 weeks, but even in this short period of time, he managed to make an impact, by helping the farm team with their work and by carrying out his own small project about ontogeny in

female four striped mice. Moritz settled in well at the research station and his departure proved especially hard to bear for Erwan, whom, in the short period of time the two had worked together, became quite good friends. In July we also received our first visitors. Alessandra Schnider, a former field assistant, came to see us in Goegap. Alessandra, together with a friend, had decided to take an overland tour of South Africa, Botswana and Namibia, but before starting on her amazing journey, she

decided she wanted to see us and the mice one more time. Alessandra stayed with us for only two short days, but even within this small time frame she managed to get some work done, by carrying out observations and radio-tracking. July had been full of comings and goings, but from this point of view August was the month which was going to take the place, as it saw the arrival of four new students, two visitors and the departure of two field assistants. The first addition to our team was Marta Wastawino, a master student from Basel, who arrived in Goegap at the beginning of August. Marta will compare the three different males' reproductive strategies by carrying out follow observations of mice in the field. Marta will stay with us until December. Just over a week after Marta's arrival, Stephanie left. She went back to her beloved Canada (and to her fiancé, who had proposed to her while on holidays here in South Africa!) to look for a job in wildlife conservation. Stephanie had been a real asset for our striped mouse team and she will be surely missed. Shortly after Stephanie's departure, we received a visit from Erwan's parents, who stayed with us at the research station for three days. Erwan's father is a well known ornithologist in

France and he really greatly enjoyed the bird life of Goegap. Thanks to his keen birder's eyes we discovered that we had a pair of verraux eagles nesting in the hills around the farm! Within three days of Erwan's parents' departure we saw the arrival of Nino Maag, a third year student from the University of Zurich. Nino arrived towards the end of August and he will stay with us at the research station until the end of November. Nino will work together with Ivana and Erwan at the farm, where he will be looking at parental and alloparental care in striped mice. The day after Nino's arrival we were joined by two more people: Samuel Lewis and Rachel Hughes, both 2nd year students from the University of Manchester. While Rachel will be working in the Farm on the differences in the use of the territory between males, females, adults and juveniles striped mice, Sam will be conducting a follows observation of striped mice to compare the differences between the breeding season and the non-breeding season. Last, but by no means least, in September we saw the arrival of another field assistant, Stribling Stuber. Stribling, a student from the US, will stay with us until December and will help with the data collection in the main field site.



From left to right: Erwan, Nino, Marta, Ivana, Rachel, Sam, Ed and Stribling.

A WHOLE DAY IN SPRINGBOK

By Marta Wastawino

Springbok is the nearest town to the Research Station and is also the capital of Namaqualand. Once a week all the people staying at the Research Station jump in a car and face the 20km that divide the Reserve Station from Springbok. At a first sight, Springbok could appear just a small town, but in the reality, for us people living all the week long in the middle of a wonderful semi desert, Springbok represent a very important resource. First of all, in Springbok there is reception for cell phones and a lot of public phones as well. It

means that people can spend until 2h (personal observation) at the phone, calling all the possible countries on the earth. One very strange phenomena: it is cheaper to call from South Africa to other countries than to call from South Africa to a cell phone IN South Africa!

While your friends are hanging at the phone you can just take a little walk in the streets of Springbok. For example you can reach the top of one of the little hills that surround of the town and enjoy a very beautiful view of the landscape. On the main street there

are several shops and stores where you can find clothes and other stuff for very good prices (as an example: the very messy but cheap Mr. Price's). If you love meat you cannot not visit the Biltong House, where you will enjoy game biltong (a typical sneak of South Africa: dry meat). Eland and kudu are my favorite ones! Springbok means also internet. There are just a few internet centers, but is enough to allow you to connect to the web and write and read as much e-mails as possible in a very little time (because after all the internet connection is not very cheap!). Moreover, there are some stands on the streets, with funny guys trying to sell you very ugly and useless passport's books, batman's belts, Springbok's caps and not-waterproof-for-sure-watches. Anyway, they could become very helpful to buy hats and scarf to wear while working on the field but not just there (because even if it's cheap we don't want to waste money, isn't it?).

Movies: strange but true, Springbok does have two stores that rent movies! The stores are called Mr. Video and Stax, and sometimes they have good choice of movies, from the very old ones to the newest; you can try to rent some South african movies as well, if you want to built your knowledge in this field.

Another very important aspect of going into the town is that there you can find restaurants: you have just to choose which one, and that's it! There are several possibilities and one is Titbits. In Titbits you can enjoy breakfast that look like lunch, lunches, dinners, ice creams, hot chocolates and lots more. The people in the restaurant are very friendly,

they know the project and are always very interested in us. Titbits serves very good milkshakes as well! You just have to be patience and wait for your order to come at the table...

Another good restaurant that I tried is Nando's. In spite of their confusing presentation (Portuguese forefathers of African people that discovered America? I learned a slightly different history...) they serve a very good chicken in all sort of ways: pitas, wraps, ¼ steak; with chips, smashed potatoes, rice, ...you have just to choose carefully with which sauce you would like to have your dish. I can say that I will not take the hot sauce ever again...I suggest better first to try the mild one, even if you like peri-peri (a South African type of chili). Another restaurant that we tried is Wimpy, a fast food restaurant where burgers are very nice.

What is more fun than a basketball match to recharge the energies and do some exercise (even if I know that not everybody will agree with me on this point...)? With the same ball we played tennis, soccer-tennis and we had a very interesting basketball match!

And last but not least, in Springbok you can buy groceries! To understand how much food and which one you will need during a whole week could seem a very easy thing, but it isn't! In South Africa you can find almost the same food as in Europe, but sometimes there is just a slightly and tricky difference! Don't be too surprised if you buy cookies that are not cooked yet, meat that is not really meat, flour with strange flakes in it, rice that need to be put first in cold water for 15 minutes, than boiled and at the end fried, peanut sweeties that

taste awful and so on. It could happen, but in just a few weeks you will become an expert in grocery's shopping!

I didn't experience that much nightlife in Springbok, yet, but as far as it concern to me, I had a lot of fun in Beaver's. Beavers is a club and I guess it is one among a lot of similar South African clubs. The music that is played there is a little old, but sometimes listening and dancing old music could be very entertaining. The only things that can maybe bother you a little, or just make you laugh, is that local people immediately understand that you are not from

Springbok and neither from South Africa so you will become an attraction: When we went there dancing, in less than ten minutes we were surrounded by a group of local guys dancing with us and asking to take pictures together. It has to be said that we had some very good break dancers in our group and probably they were the real interesting event!

Reassuring, Springbok could appear just a little South African town, but it is a lot more, and could really offer a lot and is actually interesting, fun and friendly. I hope you will enjoy your weekly day there!

MOUSE FIELD WORK 101

By Stribling Stuber

I thought I knew what I was getting myself into. No stranger to field work, I have observed, measured, and recorded in the relentless, sweltering heat of southern U.S. summers. I have inhaled countless gnats, pried off dozens of ticks, and endured poison ivy's interminable, distracting itch, all for the sake of science. When I signed up to work at the Succulent Karoo Research Station, I expected trapping and tracking adorable little striped mice in the South African desert under a clear sky, in a landscape sprinkled with the oranges, yellows, and purples of its famous flora, to provide a pleasant change of scenery.

The routine here at the main field site is actually rather simple. In the mornings, as the mice are waking up and rubbing the sleep from their eyes, we set traps outside their nests. We

then spend 30 minutes at a different nest, and observe amiable and aggressive interactions between the mice as they begin their day. After the observation period, we return to check the traps we set earlier. Any mice we trap are weighed, sexed, and quickly released. This routine of trapping and observation is repeated in the evenings as well, just as the mice are heading back to their nests after a hard day of foraging. And, during midmornings and afternoons, we also track select mice collared with small transmitters, finding their position with radio telemetry to determine their home range.

What I failed to take into account, what I neglected to incorporate in my naive daydreams of wandering the flowering desert in search of fat-cheeked mice, was just one small, niggling detail. All of my previous

experience, all of my methods and skills, were developed while working with plants. Which, in case you were unaware, are fairly stationary. Mice, as it turns out, are quite the opposite. When I came to Goegap, I knew I would work hard, and I expected the work to be different, for sure. It is one of the many reasons I came here, in fact – to learn from new experiences. What took me by surprise however, was just *how* different and how challenging it could be to make the transition from working with cooperative, immobile subjects, to small furry subjects with feet, tails, and teeth.

By the end of my first week, I felt like a fool. You might assume it would be difficult to get lost in an area where you can always see over the vegetation to the horizon, but I managed. Several times. The study area is relatively small, yet I quickly forgot which bushes contained nests, and which were merely bushes – from my perspective, they all looked generically greenish and prickly. Additionally, all my methods of observation had been developed scrutinizing plants. I was accustomed to poring over specimens for as long as I liked, manipulating leaves and stems at will in order to determine the shape of a bract or the length of a ligule. It is an entirely different matter, I discovered, to hold a breathing, biting creature and determine in an instant details about its sex life. Firstly, mice are expert squirmers. They are quite adept at repositioning themselves in your grip so that they can either escape or get a good shot at one of your fingers. Small, needle-like teeth clamp down hard, and often it takes awhile for the bite to stop

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. Please write a short motivation and attach a CV. You will then obtain more information.



bleeding. And let's not forget the fresh excretions that often accompany stressed-out mice and wind up smeared on your hands. Also, for eyes trained to pick out venation patterns in leaves, it was a difficult transition to visual comprehension of mammalian anatomy in miniature. Finally, there was the radio tracking: simple in principle, but challenging to do efficiently and effectively. There seemed to be quite a few "if this, then that" situations when using temperamental equipment to follow an airborne signal with a pendant for

ricocheting off of banks and getting lost in dense vegetation. If I wasn't quick enough (which was more often than not the case), the mice would run circles around me. As soon as I felt the stirrings of smug satisfaction at having pinpointed the position of a mouse, it would silently scurry to a nearby bush, leaving me with a mysteriously weak signal and a resignation to once again wander around and around clumps of bushes in pursuit.

I have been at the research station for two weeks now. I still mix up nesting bushes every now and again, but I have become much more familiar with the landscape, and am slowly learning to recognize natural landmarks. *That group of mice sleeps in the bush with greying, dead branches in the front, just past the downed tree and the patch of unusually fluffy grass.* The whole trapping process is going much more smoothly. I am managing to hold on

to the majority of my mice now, and have even successfully painted several with the dye we use to mark individuals for identification. My data on the sex lives of the mice are recorded with confidence now, and if you're really interested, I might even be able to dish on the details of the love triangles (and pentagons) of some of the groups I've gotten to know. I have gotten better with radio-tracking as well. I can now quickly discern a back-signal when I see one, and I (dare I say it?) am getting better about instinctively knowing how and where to point the antenna, though I still chase mice from bush to bush at least once a day. At the end of my second week, I am already feeling more competent, and confident that I will, with practice, be able to overcome whatever mousey-challenge comes next. I still expect the occasional bite though, no matter how many mice I trap.

SUPERMARKET SWEEPENGLISH LESSONS

By Rachel Hughes

Hello Darlin's, its Rachel here. I am writing to give you some advice on supermarket shopping in Springbok should you ever find yourself needing to do some.

The weekly trip of all the station occupants to Springbok is a fabulous time; a chance to use the internet to catch up on all the gossip, make phone calls to our nearest and dearest, dine in style once a week and of course restock the larder for the coming week. However, various

mistakes are made by the lovely members of the research team that make what should be a nice relaxed stroll around the supermarket into a mad dash which would only be appropriate if accompanied by Dale Winton and a TV crew. So here are my three top tips for a peaceful shopping trip:

1. Leaving too little time... all at the research station would agree that leaving the shopping until half five to start when the Superspar

closes at six is a big faux-pas. Not only does it mean you inconvenience the lovelies of Superspar, but you risk breaking a sweat in the supermarket which is a nightmare.

2. List dramas... these fall into three categories: not making a list, losing the list before reaching the supermarket and not using the list. All three of these are big blunders as although we all like milk and eggs, spending the following week eating omelettes for every meal because that's all you bought is no-one's idea of fine dining.
3. Underestimating your appetite...this is a mistake I made

the first week, when forgetting how much exercise we would get chasing mice around all day did not by nearly enough food. By the end of the week I was rationing out biscuits and eating more apples than I have ever eaten before...an easy mistake to make which leaves a lasting impression - the following week I bought far too much but at least could eat biscuits freely again.

So there you have it, those are my tips for a successful and stress-free shopping trip, use them wisely and above all.....*Happy shopping!*



Springbok

Von Nino Maag

Mittwoch ist „day off“, oder vielleicht besser „busy day in Springbok“. Für mich war es das erste Mal, dass ich diesen Tag von Beginn an miterlebt habe. Die Woche zuvor bin ich an diesem Tag in Springbok angekommen und habe es einfach nur genossen die neuen Leute kennenzulernen, in Titbits zu essen und meine Freunde zu Hause zu kontaktieren, entweder über Internet oder Telefon.

Diesen Mittwoch war es dann etwas anders. Ich hatte mir vorgenommen einige Dinge in der Stadt zu erledigen, habe aber tatsächlich nur knapp die Hälfte geschafft. Nachdem ich drei Geldautomaten (ATM's) durchprobiert habe und erst beim letzten erfolgreich beziehen konnte, was hauptsächlich an meiner Unfähigkeit lag die Aufschrift richtig zu lesen (es gibt verschiedene), führte mich mein Weg weiter zum „Post Office“. Auch dort habe ich mich länger als nötig aufgehalten. Obwohl mich die Frau am Schalter extra darauf hingewiesen hat, die Briefmarken nicht über das Kennzeichen für das Spezialcouvert, welches einen verbilligten Versand ermöglicht, zu kleben, habe ich es trotzdem gemacht. Dies hatte zur Folge, dass ich weitere Briefmarken kaufen und aufkleben musste. Ich habe jetzt noch den bitteren Nachgeschmack auf der Zunge, zum Glück war es auch so nicht sehr teuer und ich wurde beim Anheften von der Verkäuferin unterstützt. Sie hat gelacht und mir viel Glück für das

nächste Mal gewünscht. Anschließend bin ich zu einem kleinen Supermarkt gegangen um eine Telefonkarte zu kaufen. Auch hier verlief es nicht ganz reibungslos. Ich fragte nach einer „phone card“ und bekam Becher angeboten. Ich glaube ich muss an meinem Englisch arbeiten. Ich denke die Verkäuferinnen haben sich köstlich amüsiert. Immerhin habe ich bekommen was ich wollte und konnte dann meiner Lieben nach Hause telefonieren. Zum Schluss habe ich es noch kurz ins Internet Café geschafft und schnell meine Mails versandt. Glücklicherweise habe ich die meisten schon vorab, während der Woche geschrieben und konnte sie nur noch abschicken. Natürlich kamen wir dann erst eine halbe Stunde vor Ladenschluss im Spar-Supermarkt an und haben gerade noch rechtzeitig alle unsere Esswaren für die kommende Woche zusammensuchen können.

Obwohl es etwas stressig klingen mag, ist der Tag in Springbok doch ein schöner Ausflug und eine willkommene Abwechslung. Ich habe es sehr genossen und habe einige lustige Erfahrungen gemacht. Die Leute hier haben mich alle sehr freundlich behandelt, ich mag die Menschen hier. Nächste Woche organisiere ich zusammen mit Erwan unseren Trip in den Krüger Park, welchen wir nach vollbrachter Arbeit in Geogap unternehmen werden. Ich bin gespannt, ob es diesmal etwas besser funktioniert?

OH KÜHLSCHRANK, HERZSTÜCK DER STATION

Von Moritz Rövekamp

Von aussen sieht er aus wie jeder andere grosse Kühlschrank, doch dieser spezielle Kühlschrank ist mehr als ein Platz um Fleisch und Gemüse frisch zu halten. Er ist das Herz, das die Forschungsgemeinschaft und die Forschung am Leben erhält. Gefüllt mit für die Analyse in der Schweiz gesammeltem Mäuseblut und Nahrung für die Forschenden, schlägt der Kühlschrank im wöchentlichen Puls des Einkaufsrhythmus.

Zu Beginn der Woche scheint sich das Herz beinahe auszudehnen, wenn jedes Regal von seinem temporären Besitzer drei Lagen hoch gestopft wird. Vom kunstvollen, wie in ein Puzzle eingesetztes Stapeln, bis zum wilden, knapp in der Balance gehaltenen Chaos werden alle Lager-Techniken angewendet und trotzdem ist das, was man braucht immer in der hintersten Ecke links.

Erstaunlich ist, wie aus der in Spar erstandenen Masse der Rohnahrungsmittel, die sich in jedem Regal nur durch subtile Auswahlverfahren unterscheidet, eine internationale, kunterbunte Vielfalt von Speisen entsteht. Im Verlauf der Woche, während sich das Herz langsam leert, wird diese Vielfalt in Form von Überresten in Tupperware sichtbar und auch das Geruchsklima ändert sich, je mehr Verpackungen verschwinden.

Bevor sich der Zyklus dann wiederholt, gähnt die Leere und es werden immer häufiger Regalbesitzer mit dem Kopf im Kühlschrank beim Zählen der verbleibenden Mahlzeiten beobachtet.

Nur der Tiefkühler bleibt von der vollständigen Leere bewahrt, dieser füllt sich mit kleinen, sorgfältig beschrifteten Ampullen von eilig heimgebrachtem, entnommenem Mäuseblut. Dies ist der Teil der Forschungsstation der, sollten die Sonnenkollektoren ausfallen oder durch anhaltendes Schlechtwetter ausser Kraft gesetzt werden, gerettet werden muss. Sonst ginge jahrelange Forschung einen aufgetauten Bach hinunter. Normalerweise reicht die Energie der Sonnenkollektoren vollständig für die Versorgung der ganzen Station. Obwohl sich die persönliche Computerzeit empfindlich verkürzt, wenn wegen vieler Leute der zweite Kühlschrank eingeschaltet werden muss. Für den absoluten Notfall steht ein gasbetriebener Tiefkühler bereit, die einzige Alternative zur Sonnenenergie die einem hier zur Verfügung steht.

So schlägt das Herz der Station ruhig im Takt der Umstände. Kühl-Schrank. Kühl-Schrank. Kühl-Schrank.

Goegap Nature Reserve

Accommodation: Guesthouse, bush hut, camp site.

4x4 routes, tourist route for all cars, two hiking trails.

Tel: +27 27 718 99 06

Fax: +27 277181286

HOMEPAGE: STRIPEDMOUSE.COM

By Carsten Schradin

	July	August	September	Total last quarter
Visits of stripedmouse.com	3126	3067	3360	9553
Downloads FSM-TIMES, SGM-Spiegel	451	117	139	707

TITEL: HEXE, WERWOLF, ERDWOLF: SCHRECKEN DER DIE NACHT DURCHFLATTERT

Von Moritz Rövekamp

Tiefe Nacht. Plötzlich gerät Bewegung in die Menge. Die Arbeiterinnen flüchten entsetzt in Richtung des schützenden Baus, die ersten alarmierten Soldaten preschen hervor. Für die Königin bis in den Tod! Vergeblich versprühen sie ihre chemischen Waffen. Zu hunderten und tausenden sterben sie

zusammen mit flüchtenden Arbeiterinnen. Es riecht nach Tannennadeln als die letzten Arbeiterinnen im schützenden Bunker verschwinden und der Angriff endlich ablässt. Ein geräuschloser Schatten huscht im Schutz der mondlosen Nacht davon. Die Ohren des Täters zucken als ihm die tiefe Stille beinahe

zu bereitwillig den Standort einer anderen Gruppe von Arbeiterinnen verrät. Der Grossteil fällt ihm zum Opfer, erst als nur noch wilde Krieger hervorstürmen, lässt er von ihnen ab. Noch ist sein Hunger nicht gestillt. Weiter. Wolken ziehen über den Himmel und die von den Sternen beleuchtete Landschaft versinkt in ihrem Schatten in kompletter Dunkelheit. Umso besser. Noch ist keine neue Gruppe in Reichweite, aber lange kann es nicht mehr

dauern. Eine kühle Brise kommt auf und Tropfen beginnen aus den grauen Massen zu fallen. Unwillig, aber ohne Verzögerung dreht sich der Räuber um die eigene Achse und bricht seinen Streifzug ab. Pech heute Nacht. Nur knapp hunderttausend Opfer. Doch die Jagd fortzusetzen ist zu kostspielig. Mit wehendem Schweif und wilder Mähne verschwindet die Kreatur in der Erde. Nächste Nacht wird er mehr erbeuten müssen.



Erdwolf in Goegap, mit aufgestellter Mähne!

Menschen in nahen Siedlungen sprechen bei der Erscheinung von blutrünstigen Hexen mit wilden Haaren, die in Gruppen jagen und fähig sind die Gestalt zu wechseln.

Werwölfen. Aasfressern. Gerissene Schafe und Rinder. Bei Begegnungen mit den Wesen in der Nähe der Herden scheinen diese um ein Vielfaches zu wachsen, mit

lodernder Mähne und in lauernder Angriffsstellung. Obwohl niemand von handfesten Angriffen berichten kann, werden sie gejagt. Der Erdwolf (Aardwolf, *Proteles cristatus*) ist eine Hyäne und einer der hochentwickeltesten Nahrungsspezialisten der Ordnung der Carnivora. Wie der Panda seinen Bambus, spachtelt der Erdwolf fast ausschliesslich Termiten. 250'000 Stück pro Nacht. Die meisten Termiten leben durchgehend unter der Erde, doch die Exemplare des Genus' der *Trinervitermes* entsteigen des nachts zu Tausenden ihren Höhlen um trockenes Gras zu ernten. Sie stellen über 90 Prozent der Nahrung des Erdwolfs. Die Spezies der *Trinervitermes* sind das ganze Jahr aktiv und marschieren in dichten Kolonnen, die bis zu 5000 Mann/Frau/Insekt stark sind.



Termitenhügel

Um die Termiten aufzuspüren benutzt der Erdwolf sein aussergewöhnlich scharfes Gehör. Auf der Jagd sind seine grossen Ohren in ständiger Bewegung, wobei der Kopf ruhig bleibt. (Über Geruch jagende Tiere, bewegen den Kopf hin und her, um Fährte aufzunehmen.) Bei Regen überdecken die fallenden Tropfen die Geräusche der Kiefer der Termiten, weshalb die Jagd sofort aufgegeben wird.

Sind die Insekten mal gefunden werden sie mit der breiten, mit sehr klebrigen Speichel überzogenen Zunge vom Boden aufgeleckt. Die Erdwölfe sind nicht die einzigen, die sich an den schmackhaften Insekten gütlich tun. Doch die Termiten haben die lange Ko-Evolution auch nicht mit Fingerdrehen verbracht. Um zu verhindern, dass all zu viele von ihnen in hungrigen Mägen landen, haben Termiten die chemische Kriegsführung zur Perfektion gebracht. Die Termiten-Soldaten versprühen dünne Fäden von grässlich stinkenden Terpenen. (Schmecken wie zerbissene Tannennadeln) Nur stossen sie leider beim Verwandten, der unter anderem aasfressenden Hyänen auf taube Ohren, oder Mägen. Das Erbe von der Hyänenlinie, deren Mägen sogar Zähne und Knochen verdauen, lässt den Erdwolf diese leichte Störung problemlos verkraften. Erst wenn nur noch die übel riechenden Soldaten-Termiten da und alle leckeren Arbeiterinnen im Bau verschwunden sind, lässt der Erdwolf von einer Kolonne ab.

Chemische Analysen der Termiten ergaben, dass das Kilo Termiten, das der Erdwolf nächtlich frisst, ungefähr

750 Gramm Frischfleisch entspricht. Somit hat sich der Erdwolf auf eine eiweissreiche Nahrungsquelle spezialisiert, die er mit minimalem Aufwand und minimaler Konkurrenz konsumieren kann.

Die übrigen knappen 10 Prozent der Nahrung bestehen aus anderen Termitenarten und Insekten. Wenige Berichte behaupten, dass auch kleine Nagetiere, Eier, Vögel und Aas gefressen werden.

Die Backenzähne des Erdwolfs sind zu kleinen Stümpfen zurückgebildet, die er zum Teil im Alter ohne gravierenden Einfluss auf die Nahrungsaufnahme verliert. Eck- und Schneidezähne sind gut ausgebildet. Die langen, scharfen Eckzähne (Canine) werden nicht für die Nahrungsaufnahme verwendet, sondern für Territorialkämpfe und Verteidigung zum Beispiel gegen Schakale.

Die Statur der Erdwölfe erinnert stark an kleine Hyänen. Mit ihren langen Beinen erreichen sie eine Schulterhöhe von ungefähr 50 Zentimetern, wobei die Schultern höher liegen als das Becken. Obwohl sie bis zu einem Meter lang werden, sind sie sehr schlank gebaut und wiegen im Mittel 9 Kilogramm. Wie Hyänen haben sie eine nackte Schnauze. Ausserdem eine lange Mähne und einen buschigen Schwanz. Das Fell ist von Vertikal- und Querstreifen durchzogen und grau bis rotbraun.



Verlassener Bau eines Erdwolfs

Der Erdwolf ist generell solitär und schläft im eigenen Bau, den er meistens von anderen Tieren, z. Bsp. Erdferkel, übernimmt, obwohl er auch selbst fähig ist zu buddeln. Hinweise bestehen jedoch, dass je ein Männchen und ein Weibchen ihr Territorium teilen und generell monogam leben. Bekannt ist, dass die Männchen nach der Geburt ihrer Jungen, deren Nest bewachen, während die Mutter auf Nahrungssuche ist. Dies senkt die Mortalitätsrate der Jungen signifikant, da diese sonst von Schakalen gefressen werden und ist somit eine lohnenswerte Investition für die Männchen.

Trotzdem interagieren auch in dieser Zeit die Männchen und Weibchen kaum miteinander, sondern lösen sich eher genervt und aggressiv beim Babysitten ab.

Der Lebensraum des Erdwolfs hängt grösstenteils von der Verteilung der Termiten ab; er lebt in Busch- und Grasland in unzusammenhängenden Regionen von Süd- und Nordostafrika. Er meidet generell

bergige Gebiete und ist einer der wenigen Günstlinge des zunehmenden Kahlschlags für Rind- und Schafweiden, da die Termiten auf offenen, trockenen Feldern und Steppen mit kurzem Gras leben. Da sich der Erdwolf deshalb nachts in der Nähe der Herden herumtreibt, werden ihm auch heute noch gerissene Schafe zugeschrieben, was seiner Beliebtheit nicht zugute kommt.

Doch ist sein Lebensraum nicht in Gefahr, obwohl Insektizide gegen Heuschrecken schon viele Populationen stark dezimiert haben.

Auf den Feldern fanden auch die meisten Begegnungen mit dem Erdwolf statt. Diese haben sich offensichtlich als unterbewusstes und unbegründetes Feindbild tief ins menschliche Kulturgedächtnis gefressen. Dies ist in sofern verständlich, da der Erdwolf spektakuläre Drohgebärden besitzt; indem er sein Fell sträubt kann er das Volumen seiner Silhouette bis um 74 Prozent erweitern. Die Mähne ist unabhängig bewegbar und so kann der Kopf besonders betont werden. Manchmal lässt er ähnlich wie Hyänen die Vorderbeine auf die Knie einknicken, ein Bild wie eine Katze vor dem Sprung.

Im Unterschied zu seinen fleischfressenden Verwandten lässt

der Erdwolf jedoch zu jeder Zeit sein Maul geschlossen. Die Zähne werden nicht gebleckt. Wissenschaftler vermuten, dass er dem Gegenüber sein relativ schwaches Gebiss nicht entblößen will.

So „verwandelt“ sich der Wer-Erdwolf.

Trotzdem ist es erstaunlich, dass ein absolut harmloses und unschädliches Tier sich derart unbeliebt gemacht hat. Vieles hat wahrscheinlich mit dem schlechten Image der Hyänen als hinterhältige Räuber und Aasfresser zu tun. Das färbt auf die Miniatur-Insektivore-Ausgabe ab. Diese Ähnlichkeit bietet dem Erdwolf im Umgang mit anderen Tieren einen signifikanten Vorteil. Mit Hyänen ist nicht zu spassen, sie sind nach dem Löwen die grössten Prädatoren.

Mir ist der geschmeidige Bruder mit dem buschigen Schwanz leider nicht begegnet, während ich im Goegap Nature Reserve unterwegs war. Auch zwei Night Drives haben ihn, aller Faszination zum Trotz, nicht überzeugt sich zu zeigen. Trotz Spuren und Augenzeugenberichten von seiner Präsenz, musste ich mich selbst mit seinen Spuren zufriedengeben. Zumindest für mich bleibt der Erdwolf vorläufig ein Mythos.

Schrödingers Katze lebt.



Sich in der Abendsonne sonnender Erdwolf vor seinem Bau.

TITLE: THE CAPE PORCUPINE (*HYSTRIX AFRICAEAUSTRALIS*)

By Eve Davidian

When I was asked to write an essay, I really wondered what I could talk about. I went out for a walk and each time I saw an animal or a plant I asked myself: "Should I write about you?". But my answer was generally: "Already done!" or "Hum, not inspired". And then, I realized I had the perfect subject, a species I know quite well as I studied it three years ago and that occurs in the reserve; the Cape porcupine.

The Cape porcupine is a nocturnal rodent and thus is not closely related to the hedgehog as many people think. It occurs in many different ecosystems, from woodlands to dry savannas, throughout southern Africa. With its length ranging from 75 to 100 cm and its weight from 12 to 24 kg, the Cape porcupine is the largest rodent in the region and is unmistakable due to his armor of black and white quills, reminding the sticks of the 'Mikado' game. These

quills are actually modified hair and mainly act as a defense against predators. But, contrary to the popular belief, they do not eject their quills but simply erect them when threatened. The other day, Ivy asked me whether it was possible to estimate the age of a porcupine according to its quills. Honestly, I don't know because Cape porcupines have different types of quills; long, thick and sharp ones, tiny ones and even really long and flexible ones that rather seem there for ornamentation (Cf. Fig. 1). It might be more accurate to look at their teeth like most animals.

Cape porcupines are social mammals (up to 8 individuals per group) and group members are usually part of the same family. During the day, they shelter in rock crevices or in burrows that they dig themselves or even sometimes borrow to aardvarks after they have deserted it, but they will always modify it in their own way. I was told that it is possible to differentiate a burrow of a porcupine from an aardvark's by the shape of the entrance; the first is round whereas the latter is flat at the base. If it is difficult to tell, you can still look around. If you find some quills and quill scratches on the ground...

Bingo! It's a porky house! Porcupines are really noisy eaters; you can hear them chewing at night from several meters. They generally feed on subterranean parts of plants like bulbs and roots but, in some areas, they can also eat the bark of some tree species. Porcupines have huge home ranges (65-116 ha) but their size depends on the quality, the availability and the predictability of their food resources. These

parameters also influence the density of individuals in an area; the density is lower and the home range larger when food is scarce.



Fig.1. Different types of quills that can be found on one porcupine

As most of the porcupines' diet is based on subterranean parts of plants, they have to dig to access their food. The pools they leave after foraging can then be filled with water and organic matter and serve as sites for seedling germination and recruitment. It has been shown these pools have higher plant diversity than the surrounding, undisturbed soil. Like striped mice and bush Karoo rats, porcupines exhibit a high feeding selectivity for dominant species which, probably by reducing the competition between plants, appears to favor some rare and endemic geophytes in the Nieuwoudtville area. Due to these effects on their ecosystem, Cape porcupines can be considered as

ecosystem engineers in the Succulent Karoo region.

Nonetheless, in agricultural areas, farmers consider them as pests and kill them because they often damage their crops or fences. But the major threat for porcupines may actually be the increase of the quill trade; apparently lots of tourists appreciate the lampshades "made in porcupine". Even though porcupines are relatively common animals in South Africa, their conflicting interactions with humans could threaten some of their populations at long term.

Quite surprisingly, there do not seem to be a lot of porcupines in the reserve, compared to Nieuwoudtville. Maxie, the reserve manager, even looked relieved when Ivy and I told her we had found some quills in the farm. I think their low abundance here is due to the vegetation type. Like Goegap, Nieuwoudtville is known as a hotspot of plant diversity and lands are covered by beautiful flowers in spring. Nevertheless, this diversity is mainly represented by geophytes species, which offers a lot of food to porcupines. In fact, it is such a rich habitat for them that their density and weight are among the highest, if not THE highest, recorded in South Africa!

In Goegap reserve, succulent species represent most of the plant diversity and I am not sure that porcupines are crazy about them. On the other hand, according to the density of anthills and the numbers of diggings, Goegap really seems to be a paradise for aardvarks!



Fig.2. Possible leftovers of a porcupine feast. a: bulb shells, b: quill

I have intensively looked for burrows in the farm but the few I have found seemed rather occupied by aardvarks. But I couldn't give up. My instinct of porcupine hunter was aroused and I had to find one. I decided to investigate around the two areas where I had previously found quills; on the study site and on the site where Christina Keller used to trap pygmy mice. When I arrived on the 'pygmy mice' site, I found lots of porcupine diggings. I could tell so for several reasons: i) there were no anthills around, ii) I found many bulbs and bulbs shells next to them (Cf. Fig

2), but mainly because iii) I found a handful of quills there!

Moreover, I could tell, by their smell of dry hair and musk that these quills were quite fresh so there might be some porcupines living in this area at the moment. Unfortunately, I didn't find any burrow there. My investigation on the study site was more fruitful as I localized about five burrows that could be occupied by porcupines.

I decided to try a method my former supervisor, Christy Bragg, taught me to check the burrows for occupancy and identify the species and number of individuals living there. It is called the 'paint and paper' methods and I think it is quite popular for the studies on small mammals. This methods

simply consists in depositing some powder paint at the entrance of a burrow and placing a sheet of paper in front of it so that, when the animal comes out, it leaves a nice print on the paper.

As I didn't have any powder paint, I deposited some red sand (previously sifted) and paper at each of the five burrows. Unfortunately, when I checked them the following morning, none of the sheets had prints. I guess no one lives in those burrows at the moment. But for sure there is at least one porcupine living there because, while I am pulling my hair to find it, it keeps taunting me by regularly leaving some quills on my way to the mice nests.

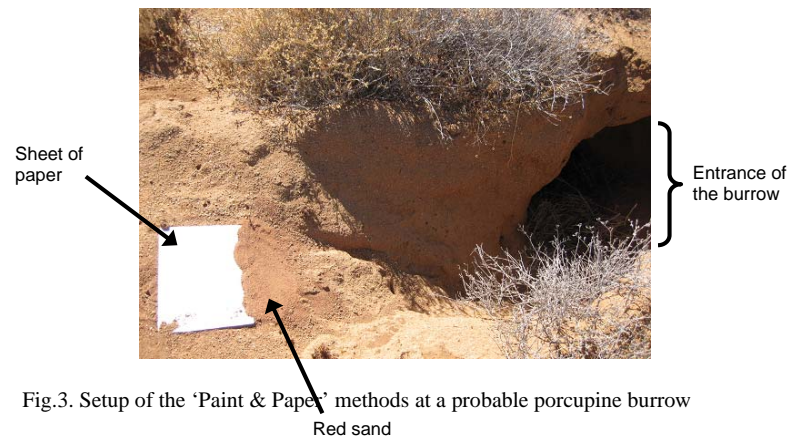


Fig.3. Setup of the 'Paint & Paper' methods at a probable porcupine burrow

NEWS AND INFORMATION ABOUT PLANTS AND ANIMALS

NEW PREDATORS AT THE FARM!

By Ivana Schoepf

As if mice mortality rate due to predation at the farm is not already high enough, we now have at least four more potential mice-eaters! First of the bunch are the booted eagles. A pair of booted eagles has, in fact, moved in our farm site and has taken over the nest last year occupied by the black shoulder kites. They have immediately made themselves busy too as, since the beginning of the radio-tracking in the end of August, they have been responsible for the disappearance of at least three of our radio-collared females (and probably countless more non-radio-collared mice, bush Karoo rats and elephant shrews!).

Next up are the goshawks. A pair of southern pale chanting goshawks has made the trees overlooking the reeds near the farm house their home. Though the two birds are nesting well away from where we are conducting our research (approximately 3.5 km), they are regularly seen patrolling the sky of our field site in the morning, which of course, cannot be good news for our mice. In addition we also have a group of about 5-6 pied crows that are nesting in the hills overlooking our field site. The crows have not yet been seen scooping up anything from the ground, but they

are seen regularly in the morning and in the afternoon flying over the field site in the direction of Springbok. Our theory is that the crows are more interested in the food on offer in Springbok rather than what is available at the farm. Tough the crows have not been proved guilty yet, we cannot be sure of what they are up to when we are not looking, hence we still consider them as only potential predators. Last but not least, we also have a pair of Verraux Eagles. Though an adult eagle would be probably far more interested in catching dassies rather than mice, a large pregnant female mouse could still make for a tasty take away for a young eagle chick. We still don't know for sure how many mice are lost to the eagles as so far we haven't been able to locate their nest, but we are confident that we will soon be able to uncover their secret location as we have our top man, Erwan "the eagles' finder" on the case. One thing for sure, all of these new additions to the farm predators list are helping to keep the jackal buzzards rather busy! The poor guys are in fact seen almost daily chasing away the eagles from their territory! Well, one good thing at last, all this fighting is

keeping the predators busy and the mice off their menu.



Booted Eagle

SPOT THE ANIMAL!

By Ivana Schoepf

One night as Ed, Stephanie and I were making our way back to the research station; we saw something distinctly cat like moving up on the side of one of the hills overlooking the office. As we did not expect to see anything unusual we were caught a bit "unprepared" and we had with us only a pair of not-too-good binoculars and an instant camera. Tough we could not entirely make out what it was; we became convinced that it was either a caracal or a leopard we were looking at, as we had seen the animal in the very same area just a few days earlier and on the same occasion we decided that it could only be either. We waited patiently in the

same spot trying to take a picture of the creature. After a while – approximately 45 minutes- as the animal didn't seem to be going anywhere we decided to go back to the research station to get better equipment, i.e. our good binoculars and Ed's zoom lens with image stabilizer. However after all our preparations, when we went back to the spot we found the animal gone. Well at least we managed to catch one very blurry picture of it. Here it is: you can decide for yourself if it is a caracal or the famous Goegap leopard. For the three of us the debate still rages on!



Here is the picture I got from Goegap. I (Carsten) cant even see where the animal should be!

HOW TO TRAP

By Erwan ChereI

Trapping is one of the main field activities and also one of the most interesting. We need a scale, a bowl, a bag, some corn flakes and, of course, traps.

The purpose of trapping is to collect data about mice, like the weight and their sexual activity. First of all, we

have to set the traps, they are set close to a bush, in the shadow. The traps mustn't be under the sun because it could be dangerous for the animals who are in the traps, they can die if the weather is warm and if the sun heat the traps.



Then, we let the traps set at least half and hour. After this time we can see if there are some animals in the traps. Usually we catch striped mice, but sometimes we find elephant shrews or bush Karoo rats, and it happens that birds are trapped, just be careful when you let birds go: don't look into the trap as they might fly into your face. Before you begin to handle

mice, you have to put them from the trap to the bag, it is useful to weight them, we just need to put the bag in the bowl on the scale. After this first operation we determine if the mouse is a male or a female, it is the beginning of handling. First we immobilize, with the hand, the mouse in the bag, then we catch it with the

other hand and we hold it by the back, like on the picture.

For the female we look if the nipples are visible and if the vagina is open, for the male we just look if the scrotum is visible. Then we read the ear tag to know which individual we were handling. Of course if the mouse hasn't any ear tag, we tag it. If we are doing nest observation where the mouse is trapped we need to paint it, we use a painting which is not toxic for mice. We have two colours, black and red, and we paint mice on

the head, on the back or on the chest for the female and on the ass for the male. We put usually one colour, but if they are too many mice in a nest we put two colours, for example black and red chest. This operation is a little bit more difficult but after a while it comes easily. People who are used to handle mice can also put on them a radio-collar but it is a really delicate handling. Before to leave we unset the traps, putting them on the back, in this way, animals can come in and come out without being trapped.



CONFERENCES, PRESENTATIONS AND PUBLICATIONS

CONFERENCES

Carsten Schradin went to the meeting of the German Zoological Society in Regensburg in September. He gave a symposium talk of 30min as one of two young German scientists in the

field of Animal Behaviour, that hope to get a permanent position soon. The visit to the conference was quite successful and enjoyable.

By Ed Yuen

In July, Ivy and I were fortunately enough to attend the conference of the Zoological Society of Southern Africa (ZSSA) in Durban. It was decided that this being the 50th anniversary of the society it should be made an all African affair and all the invited keynote speakers for the conference were to be from Southern Africa. This was a rather interesting fact for us as, in this way, we had the chance to hear speak many of the top South African researchers and to get an insight into the issues, the priorities and the general state of the research in South Africa and its neighboring countries. Being an anniversary conference also meant that the talks were not concentrated around a specific topic, but rather covered different aspects of biology, from evolution, to conservation, development, cell biology and taxonomy. Alongside the keynote speakers (30 minutes each) and the so called speed-talks (10 minutes each) where other researchers were given the opportunity to present their work, there were also poster sessions

were many Master, PhD and Postdoc students could present their results. Both Ivy and I took up the opportunity and presented our work during the poster session. Ivy chose to cover the environmental causes of social flexibility as a topic for her poster (Title: **Social Flexibility. A field study in the four striped mouse (*Rhabdomys pumilio*)**), while I presented my work on personality in the four striped mouse (Title: **Personality in the Four Striped Mouse**). Both our posters were well received and both Ivy and I got asked a lot of questions regarding our research. Conferences are also interesting places where one has the opportunity to meet people and to do some social networking. The conference Ivy and I attended in Durban was not different, and both of us had the chance to meet new and interesting scientists and to discover that our striped mouse research is well famous, as several people recognized our faces from our striped mouse website!



SCIENTIFIC PUBLICATIONS

Schradin, C., C. Schneider, and C. H. Yuen. 2009. Age at puberty in male African striped mice: the impact of food, population density and the presence of the father. *Functional Ecology* 23:1004-1013.

Summary

1. The time at which animals enter puberty and become sexually mature is a significant life history trait, influencing lifetime reproductive success. Great variation exists both between and within species.
2. The proximate mechanisms regulating the time at which a male enters puberty are not well understood. Environmental cues are predicted to provide the relevant information on resource availability and opportunities for reproduction. When these are good the onset of puberty begins whereas at other times investment in survival becomes more important.
3. Male African striped mice (*Rhabdomys pumilio*) demonstrate large variation in the age at which they enter puberty, with grassland populations starting at 4 weeks old and semi-desert populations at over 10 weeks old.
4. We predicted that differences in the availability of food, social organisation, and population density could explain these differences.
5. Using data on 170 individual males from 4 years of field studies in a semi-desert population, we found that males became scrotal at a younger age when no

breeding male was present in their group and when food was abundant, while population density had no effect.

6. In laboratory experiments we demonstrated that males fed with poor protein food, males that regularly encounter larger unfamiliar males (mimicking high population density), and males that live in family groups with their father present, become scrotal at a significantly later age, independent of their growth rate.

7. Males housed in family groups have lower testosterone but higher corticosterone levels than singly housed males, indicating they are sexually suppressed. When they become scrotal in their family group, their testes are only half as large as those of their singly housed brothers, and they contained significantly less sperm.

8. We conclude that male striped mice have a flexible response to the onset of puberty, and that the onset of sexual maturity is dependent on several environmental cues. Our results indicate that there is no threshold body mass, which, when reached, would automatically trigger puberty in male striped mice.

9. Male helpers in some species are reproductively suppressed, but ours is the first study that demonstrated the importance of different ecological factors in the timing of puberty in male helpers in a facultative cooperatively breeding species.

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:

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

2. Improving the infrastructure 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.

You can easily donate money online if you have a PayPal account.

Otherwise, please transfer money to one of our bank account.

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Switzerland (deposits in Switzerland)
Postkonto 80-643-0
Finanzabteilung der Universität
Zürich, 8001 Zürich
Reference: Kreditnummer 37202508,
Projekt Striemengrasmaus
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Reference: Kreditnummer 37202508,
Projekt Striemengrasmaus
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Further Development of the Research Station

The research station developed a lot during the last years, but there is still a way to go. We have to improve the power supply, replace gas by solar heaters (warm water), need more storage space, repair the roof and do other renovations. Here is a list of what we need, in case you know a foundation that could help us or if you want to make a considerable donation:

	CHF or US \$	€€
1x Wind turbine for electricity	3 000	2 000
Additional solar pannels	5 000	3 500
Battery bank for power	3 000	2 000
Solar geyser	3 000	2 000
Solar pump for water	3 000	3 000
Storage space	5 000	3 500
Renovation roof	5 000	3 500
General renovation	3 000	3 000

ACKNOWLEDGEMENTS

We ate grateful for every donation made to support our research !

New way to donate money !

Since November last year you can donate money easily online via PayPal! Just log onto our web site www.stripedmouse.com and click onto the PayPal button. We are very grateful for any contribution!

THE MOUSE'S TAIL

OF FROGS AND TOADS

Goegap is situated in the Succulent Karoo, which by anybody's standards is a semi-desert. So it comes as a complete surprise when one finds in the middle of an area like this,



species such as frogs and toads. But this is precisely what one can find these days when walking around the field in the evening while doing sleeping sites!

PORCUPINES ARE STILL ALL AROUND

Following the last months when we had amazing porcupine sightings almost on a weekly basis, we thought our luck was surely going to run out soon, but nay, porcupines are still all around in Goegap and on our last night drive in the beginning of July, we managed to see not one but three of them! And all in the space of

20 minutes! First we came across a juvenile running close to the road. As we stopped the car, it also stopped and we were all lucky enough to get out of the car and admire him from up-close. Shortly afterwards we saw a mother with a baby running across the field. This surely will be hard to top now!

THE BABIES SEASON

Spring in Goegap is a magical time. The flowers start to appear and the animals start to reproduce and the first babies are born. This year we have already seen our fair share of baby mice, baby bush Karoo rats and baby elephant shrews, but, in

addition, we were also lucky enough to witness a mother steenbok with her newly born and a mother dassie rat taking care of her offspring of three tiny babies. One lucky babies' season indeed.

GOLDEN MOUSE PRIZE-WINNERS

2009: DR. URS THALMANN

2008: KLEIN GOEGAP

2007: GOEGAP NATURE RESERVE

2006: DR. GUSTL ANZENBERGER

2005: JENS SCHRADIN