

# FSM-TIMES

FourStripedMouse



**Titel / Title:**

**KOMMUNIKATION BEI PAVIANEN  
COMMUNICATION IN BABOONS**

Reports by students from Germany, the USA  
and Switzerland / Austria  
New solar batteries installed!  
Important publications in the *Journal of Animal  
Ecology*

## IMPRESSUM

### EDITORS

Dr. Carsten Schradin, Brigitte Schradin.

### ADDRESS

Goegap Nature Reserve, Succulent Karoo  
Research Station, Private Bag X1, Springbok  
8240, South Africa.

[carsten.schradin@zool.uzh.ch](mailto:carsten.schradin@zool.uzh.ch)

### HOMEPAGE

<http://www.stripedmouse.com>.

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## WILLKOMMEN BEI DER DREIUNDZWANZIGSTEN AUSGABE DER FSM-TIMES!



Liebe Leser,

Hier wieder die neue Deutsch / Englische Ausgabe unseres Email-Newsletter. Die für mich bei weitem wichtigste Neuigkeit der letzten 3 Monate ist, dass wir unsere Batteriebank in Goegap ausgetauscht haben. Wir haben damit unsere Speicherkapazität verdoppelt und gleichzeitig moderne Solarbatterien bekommen, welche 10 Jahre halten sollen. So stehen nun 12 2V Batterien auf unserer Verandah, insgesamt 1,7 Tonnen Gewicht! Mit Kosten von 4300 Euro war das nicht billig, aber wir hoffen, dass eine langfristige Investition ist.

Teilweise wurden die Kosten durch Spenden von Ihnen gedeckt, wie Sie im Jahresbericht der Spende an den SGM-Spiegel in dieser Ausgabe sehen können. Trotzdem und vor allem wegen dieser teuren Anschaffung sind wir natürlich auf Spenden angewiesen. Wenn Sie uns dieses Jahr unterstützen wollen, wäre nun eine gute Gelegenheit dazu. Unter der Rubrik „Funding of Research“ im Newsletter finden Sie hierfür alle notwendigen Informationen. Vielen Dank für Ihre Unterstützung!

*Carsten Schradin*

## WELCOME TO THE TWENTY-THIRD ISSUE OF THE FSM-TIMES!



Dear Reader,

The biggest news of the last three months is that we got a new battery bank. It doubles our capacity to store energy and consists of special solar cells that are supposed to work for at least ten years (compared to the 2 years of the

normal car batteries we used before). However, this comes at the price of 4300 Euro. But now we have 1.7 tons (!!!) of batteries on our verandah and hope to overcome all power problems in future.

These high expenses mean that we have to rely on donations now more than ever. If you want to support our project this year, it's now the time to donate (for how to do this see the

“Funding of Research” section in this newsletter. If every reader of the FSM-Times would donate only 10 Euro, we would have more than enough funding to cover these costs

and much more. Thank you very much for your support!

*Carsten Schradin*

## NAMAQUALAND-WEATHER

*By Ed Yuen*

While many of our readers have been experiencing one of the coldest winters in Europe, we are battling with the heat here in Goegap. Even though, this summer is not one of the hottest summers since I have been here, but it certainly not far from it. On top of that, there was almost no rain at all before the end of February. For many days the humidity was building up and we thought the rain would finally come to cool down the temperature a bit, but we all ended up with a very hot and sticky day with no rain. However, our slight discomfort meant nothing compared to the animals around the reserve. The reserve and our field site had become so dry and as a consequence, food and water were scarce for the animals. As you will read in the mouse tails section, many animals had come much closer to the research station (and in some cases in the research station) in search for

food and water. There were baboons foraging outside the fence around the house, zebras and gemsboks foraging in the main field site, a steenbok was drinking the water from the bird's waterhole in our garden, and last certainly not least in numbers was our new neighbor the red driver ants. Who knows what else had paid a visit to our research station under the cover of the night as I often heard something walking, digging and eating outside my Wendy house. Although, I am not dismissing the possibility that there were simply some field assistants having a picnic outside my Wendy house in the middle of the night. Well, our summer is nearly over now. We had a thunderstorm towards the end of February, the dry riverbed in the main field site was flowing and everywhere is now filled with some green vegetation once again.

THE LAST THREE MONTHS	January	February	March
MINIMUM TEMPERATURES			
NIGHT	12.2	8.7	11.0
DAY	26.2	25.6	31.2
MAXIMUM TEMPERATURES			
NIGHT	23.4	22.7	42.4
DAY	39.8	43.2	22.5
NIGHTS WITH FROST	0	0	0
RAINFALL IN MM	0	4	9.7
DAYS WITH RAIN	0	44	5

## THE PEOPLE IN GOEGAP

*By Ed Yuen*

The first three months of 2010 were rather busy in Goegap as we had a lot of people coming and going. We started the year with eight people, but middle of January the research station population was down to only four as Carsten and his family left for Switzerland. But we were to be four for not very long as only a few days later we were joined by another student: Patricia Biederman from Switzerland. Patricia is Swiss but she also has some Austrian blood in her, hence with her coming we were able to learn more about Austrian culture, starting from their food! Just a week or so after Patricia arrival, we were surprised – in a pleasant way – to receive the visit of a face that is now becoming as familiar as the mice for us in Goegap: Alessandra Schnider! Alessandra was in Goegap already twice: the first time in 2008, when she came as a field assistant; and the second time in 2009 when she came to visit on her way to an overland trip. And in January, just a few months after she had been in Goegap last, she was back. This time she came to

South Africa exclusively to see us. Alessandra stayed with us for just about 10 days, but even if she stayed for such a short period of time she managed to leave her mark – mainly with chocolate, coffee, walnuts and fondue! For sure it will not be long before we see her again down here. And in fact, she is planning a new visit as we speak. So we will be very likely see her again in July sometimes (watch this space...). A week into Alessandras visit we were joined by John Pokallus and Sylvia Schulz van Endert. John comes from the United States while Sylvia comes from Germany, but hearing her speak you would be probably forgiven to think she is also from the US as her English has a marked American accent. Both John and Sylvia immediately demonstrated keenness to learn and explore the nature around them and on their very first day went on a hike in the Reserve. To continue the great movement of people coming and going from the research station, just less than two weeks after Sylvia and John arrival,

Ivana also left for Switzerland. Now next three months we'll be as we just need to wait and see if the exacting as the last three!



The group in March: Patricia, Ed, Rachel, Sylvia, John and Sam.

By John Pokallus

After much anticipation, March 10<sup>th</sup> finally arrived. We had been waiting for about two and a half weeks for this day to come; the five field assistants were all taking a vacation for two days to relax and experience some ocean-front culture at Port Nolloth. It started much like any other day, we worked in the morning (which was the deal in order to get these two consecutive days off) and Ed drove us into town in jam-packed Mahindra, sitting four-wide in the back seat. After arriving in Springbok, we deliberately ate at Titbits because there had been much controversy between the seasoned Goegap members about whether or not the food was actually edible. I enjoyed my meal; others didn't, so the ultimate answer is still inconclusive. With the prospect of a fantastic weekend-during-the-week at hand, Sam and I left to go pick up our rental car, a 1.6L VW Polo, then met the girls at the supermarket to purchase some food for the braai that we had planned for the evening. Everyone was equally excited about the trip, so we left Springbok, and were immediately underway. We were really doing it, I can't explain how excited we all were about going to Port Nolloth and being away from the research station for a couple of days. Sylvia and Patricia literally had a countdown sheet on their wall two weeks prior to leaving. After a while on the road, the initial excitement faded a bit as the monotony of the seemingly endless semi-desert past by our windows and

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 [CARSTEN.SCHRADIN@ZOO.LUZERN.CH](mailto:CARSTEN.SCHRADIN@ZOO.LUZERN.CH). PLEASE WRITE A SHORT MOTIVATION AND ATTACH A CV. YOU WILL THEN OBTAIN MORE INFORMATION.



the small interior-space of the Polo was a little crowded for five adults. Regardless, everyone was still happy, and the music selection of *The Boat that Rocked* soundtrack aptly fit the atmosphere within the car. Two hours later, we could see the Atlantic Ocean and the excitement was back. The drive in was great. The road dropped down rapidly, almost to sea level for the last 15km; providing a fantastic view of the sea, Port Nolloth, and the surrounding area. As we pulled into the town itself, everyone was smiling and ecstatic to be there. We were staying in a



cottage on the sea front owned by the Bedrock Lodge. The cottage itself was perfect, three bedrooms and five beds, decorated in a traditional maritime-theme style; exactly how a cottage on the beach should be decorated. The key to the cottage itself carried on the theme as well, it was the kind that you would imagine a pirate unlocking his buried treasure with, simply styled with a long shaft and a ring at one end.

After our tour of the cottage, and officially checking-in, Sylvia and I got into the Polo to move the car closer to the cottage and begin unloading our luggage and food. Up until this point everything had gone incredibly smoothly, too smoothly in fact, it felt too good to be true... and it was. Upon trying to start the mighty Polo, we realized our smooth-streak had come to an end. The car would only lend itself an ignition, a feeble attempt to run, then it would die. After trying to nurse the Polo back to life about 37 times, we gave up and began carrying everything back to the cottage by hand. Then, moments later, as I was putting some food away in the refrigerator, the Polo miraculously pulled up outside the cottage, driven by Sam. I don't know how he had gotten the mighty beast

going again, I suspect magic or some other kind of sorcery, but he had done it and we were back on our smooth streak. For the rest of the evening we were able to relax and enjoy the luxury of television and internet, followed by a late-night braai as well as a walk on the beach.

I woke up early the next day, which incidentally was my birthday. I was hoping to watch the sun rising from the beach, but after leaving my room I was immediately shooed back into it. Sylvia had woken up very early and prepared a fantastic birthday surprise for me (this was the second time that I ruined the surprise, the first happened when I accidentally opened the bag containing all of the party hats). There were hats, masks, balloons, candles, and a cake. It was great. After blowing out the candles I cut the cake, and in concert with Rachel's tradition I yelled when the knife struck the plate; my high pitched scream was only a little embarrassing for me but hilarious for everyone else. After breakfast we headed off to MacDougal's Bay for a swim. The sky was overcast, and it wasn't particularly warm out, but we were determined to take advantage of being near the ocean. The water itself felt as though it had just melted from an iceberg off the coast of Antarctica. So the swimming was rather short-lived, but we remained on the beach and enjoyed the sand between our toes and the cool breeze off the ocean. When lunch time rolled around, we decided to leave the beach and visit a small café, Captain Nemo's. The food there was absolutely superb, perhaps the restaurants in Springbok have lowered all of our standards;

regardless, we all agreed that this was the best restaurant food we had eaten in a long time.

For the rest of the afternoon we were all left to our own devices until the evening. Upon returning to the cottage, I was greeted by yet another cake as well as a fine bottle of scotch tied with a bow. I certainly did not expect this, and I was legitimately surprised. After having some cake and a toast to ushering in my mid-twenties, we went out to dinner. We chose a seafood restaurant called Port Wharf, and because we had decided to look ridiculous and wore our party hats out, they provided a bottle of champagne on the house. It was a fantastic addition to the evening and really contributed to the occasion.

After dinner we set off on an adventure to find the lighthouse, whose beam was visible throughout the town. Surprisingly it only took us about ten minutes to locate it, and the discovery was rather anticlimactic as the lighthouse was not impressively-tall and it sat atop a stand of scaffolding rather than the large

concrete tower that we envisioned. Not too disheartened by our findings, we continued walking and spent our last night in Port Nolloth sitting on a seaside bench enjoying the sounds, smells, and lights of the night ocean.

The next day it was time to leave. The sky was overcast, and the temperature could not have been better, the conditions were perfect for a last day in Port Nolloth. We cleaned the cottage, packed everything back into the car and checked out of the Bedrock Lodge. There was a somber mood among the crew of field assistants this morning as we all tried to absorb the last minutes of the ocean sensations and the vacation lifestyle. After a brunch at Captain Nemo's and some last minute phone calls we were on our way out of town. There was very little talking in the car as we left Port Nolloth while the ocean disappeared in the rearview mirrors, we all enjoyed some silent reflection of a great vacation and prepared our minds for the schedule and routine that awaited us in Goegap.

### GOEGAP NATURRESERVAT – WELLNESS FÜR KÖRPER UND GEIST DES GESTRESSTEN STÄDTERS

*Von Sylvia Schulz van Endert*

Wenn er ehrlich zu sich ist, muss auch der treueste Städter zugeben, trotz der wimmelnden Menschenmassen und materiellen Ablenkungen des urbanen Lebens ab und an von einem Gefühl der Einsamkeit und Orientierungslosigkeit erfasst zu werden: In der überfüllten Bahn um 6 Uhr morgens am

doppelten Espresso nuckelnd, vor dem Computerbildschirm die müden Augen reibend, nachts entnervt das Klingeln des ständig auf Bereitschaft gesetzten Mobiltelefons erdulnd, kommen wir nicht umhin, unsere selbst erschaffene Realität in Frage zu stellen. Fazit ist, wir haben den Kontakt zum wahren Leben, die

Verbundenheit zu unseren natürlichen Wurzeln so schnell verloren, dass es uns oftmals selbst überrascht. Kaum ein Stadtbewohner erlebt den ursprünglichen Kontext, in dem wir Menschen evolviert sind – und verpasst einen wichtigen Aspekt zur Findung der eigenen Identität.

Jedes Mal, wenn ich entlang der sandigen rotbraunen Pisten und dem Lauf des trockenen Flussbettes folgend durch das Goegap Naturreservat jogge, bin ich erfüllt von einem primitiven, sonst tief vergrabenen Gefühl der Ruhe und Zugehörigkeit, das mit keiner Erfahrung aus meinem Leben in der Zivilisation vergleichbar ist. Es ist nicht nur die akustische Ruhe, die die Sinne empfänglicher macht für die wilde Schönheit der Umgebung. Es sind die sich scheinbar endlos erstreckenden Formationen von Hügeln und Tälern, der weit offene Himmel, der eine fast unheimliche Herrlichkeit an Farben und Wolkenformen hervorbringt. Aber vor allem sind es die Herden von Oryxantilopen, von streifenden Springböcken, die Familie der Bergzebras und gelegentlich das Staußenpaar, welche einen zu jeder Tageszeit auf dem Weg durch das Reservat begleiten. Zugegeben, die Scheu der Tiere vor den bis vor kurzem nur als Jäger gekannten Menschen schafft eine Distanz, doch auch auf eine Entfernung von 50 Metern ist die Ästhetik und Anmut der Tiere zu erspüren. Wenn ich die kraftvollen Bewegungen der

Antilopen neben mir sehe, habe ich das beschwingende Gefühl, ewig mit ihnen weiterlaufen zu können und Gedanken an Verpflichtungen und Sorgen aus dem Alltag werden ersetzt durch einen Zustand, der sich am treffendsten mit dem Wort Freiheit beschreiben lässt.

Ich verdränge gern den Anblick der Karte von Goegap, die mir zeigt, dass ich auf meinen Exkursionen bereits nah an die Grenzen des Reservats gestoßen bin, weil es mich traurig macht, das diese im Einklang stehende Welt nur hinter einem wohl gehüteten Maschendrahtzaun existieren kann. Und dieser Zustand ist nicht nur in der Lokalität von Namaqualand zu betrauern; vielmehr kann man mit geschlossenen Augen an einen Punkt der Weltkarte landen, an dem mit Garantie gleiche oder gar schlechtere Verhältnisse herrschen. Um jedes bewohnbare und wirtschaftlich nutzbare Rückzugsgebiet für Flora und Fauna muss gekämpft werden. Vielleicht haben wir allmählich den Zeitpunkt erreicht, zu dem sich die Menschen wieder von allein der Natur näher kommen in einem Versuch, dem Stress und dem Chaos der künstlichen Welt von materiellen Gütern und vergessenen Traditionen zu entfliehen. Dies wäre eine wahrhaft rettende Entwicklung, die sowohl dem Weiterbestand unserer Ökosysteme als auch der geistigen und körperlichen Gesundheit des Menschen zum Vorteil wäre.

## PANCAKE DAY

By Rachel Hughes

On the 17<sup>th</sup> February the residents of the Succulent Karoo Research Station took part in what has since become known as the biggest sporting event of the Goegap Nature Reserve calendar. The event I am referring to is none other than the charming English village tradition of pancake racing.

This event takes place on Shrove Tuesday, the day before Ash Wednesday and the start of lent, so to get rid of all the luxury food items you may have lying around, delicious pancakes are made and eaten. These then provide the necessary energy for racing; two people line up, a frying pan and pancake each which they must then run with, whilst flipping the pancake, cheered on by adoring crowds naturally.



The English heat, showing adoring crowds and race officials

The Goegap Nature Reserve event took place at two o'clock in the afternoon, and as the racers of the first heat, Sylvia and Patricia, lined up the tension was palpable. The race was close-run but in the end, the pancake flipping prowess of Sylvia won out and she won the heat. The second heat was the battle of the

English – who should in theory be good at pancake racing – between Sam and myself. Our first attempt was disallowed due to some appalling tactics on Sam's part including illegal flipping manoeuvres and an incredibly dirty tackle at the finish line. In our second heat, Sam was again disqualified and so I won through the slightly unglamorous route of default. The final first round heat saw Ed casually stroll to victory due to an excellent display of frying pan skills, against his finely-dressed opponent, John.

The first semi-final saw the only English entry left knocked out by superior sportsmanship as Sylvia beat me easily, and secured her place in the final. In the second semi-final Ivy (who got a free pass through the first round) lined up against Ed, and despite some argy bargying at



The Pancake Queen herself

the finish line, Ivy's as yet untested pancake skills won her a place in the final too.

So, now there were only two contenders for the gold left: Sylvia, the seasoned veteran, with a whole

two previous races under her belt, and the new talent, Ivy; both of them eager to win, both of them willing the other to fail. The crowds (who due to lack of numbers also doubled as race officials) excitedly lined up to watch the final, and the runners took their places. The race was valiantly run by both competitors, but once again the pancake flipping expertise of Sylvia won out and she was crowned **PANCAKE QUEEN**.

## INTERNATIONAL FOOD WEEK

By Sam Lewis

The second International Food Week of my stay here took place last week, featuring contributions from 5 countries spread across 3 continents. The first meal was the Austrian plums Knödel, plums wrapped in a layer of dough, served up by Patricia. It proved to be a delightful combination, with the tart taste of the plums offset nicely by the sweetness of the dough, and enough left for breakfast too.

The second meal was Wyoming chilli, prepared with a deft hand by our resident American, John. Never before have I seen spiced mince in such quantities, and wanted to eat it quite so much either, and the bowls of hot steaming chilli were just what was needed after a blisteringly warm day in the field.

The next day was a Sunday, giving us the opportunity for two meals in one mindblowing day. In the morning Rachel and I served up a full English breakfast for everyone, an assembly of the greasiest food available and ideally consumed after a heavy night on the sauce. Fried eggs, sausages,

So, all in all, a thrilling day showcasing the best of the station's athletic abilities and sportsmanship (apart from Sam who gained a three-year ban from the competition due to his disrespect for the rules of the event) and after the obligatory victory photo of Sylvia, we all headed back to the station for some well-earned and very tasty pancakes.

bacon, fried mushrooms, fried tomatoes, baked beans and toast all on one high-cholesterol plate. The evening saw Sylvia cooking the German contribution of Milchreis (milk rice), served with cinnamon, sugar and raspberries. Again the contrast of sweet rice and sour fruit proved a sublime combination, evidently a hallmark of European cooking that we all appreciated.

Then it was mine and Rachel's turn to cook another British classic – shepherd's pie, a mixture of onions, mince and carrots cooked in a rich meat stock, topped with mashed potato and melted cheese. The only thing that would have made it taste better would have been proper British weather outside, it wasn't quite the refreshing relief from the hot sticky weather we all needed. And then a dessert of apple crumble made good preparation for the upcoming kilo of steak challenge.

For the last meal of the week Ed prepared an authentic Thai red curry, the drama of the stormy weather

outside more than matched by the explosion of flavours on the palate. And so International Food Week drew to a close: we'd all eaten well and

had some laughs, but I'd like to think we'd learnt something about our international neighbors as well.

## WANDERN IN GOEGAP

*Von Patricia Biedermann*

Was kann man an einem freien Sonntag in Goegap alles machen? Wie ja bekannt ist, besitzen wir hier weder Telefon, Internet und Fernseher. Die Hauptbeschäftigungen eines freien Tages sind ausschlafen, ausgiebig Frühstück, Lesen, DVD schauen, Wäsche waschen und natürlich ein beliebter Spaziergang zum Office um Telefonate zu halten. Nun ja, manche von uns sind eben weniger Stubenhocker und manchen reicht es auch nicht 5km zum Office und 5km retour zu gehen. An einem Sonntag (schon fast Nachmittag) beschlossen John und ich eine Wanderung zu machen. Zuerst unentschieden, ob wir eine von den vielen und langen 4x4 Routen entlanggehen sollten (aber es war ja schon fast mittags...) oder ob wir doch lieber zum Office laufen sollten und eine von den Wanderwegen nehmen sollten. Da die Sonne am Himmel zunehmend höher stand und die Hitze zunahm, beschlossen wir, einen Wanderweg zu machen. Nach einer guten Stunde sind wir am Office angekommen und standen vor der nächsten großen Entscheidung: großer oder kleiner Wanderweg? John und ich wussten nicht wirklich, auf was wir uns da einließen und uns war auch nicht klar, wie lang welcher Weg ist. Aber, um Enttäuschungen vorzubeugen,

beschlossen wir wagemutig den großen Hiking-Trail zu nehmen. So stürzten wir uns ins Abenteuer! Gleich ging es den Pfad bergauf und wir konnten sogleich ein paar Paviane sehen, die sich an den Hängen tummelten. Natürlich wurden gleich ein paar Fotos geschossen und daraufhin ging es gleich weiter. Nachdem wir 1,5 Stunden aufwärts gegangen sind, kamen wir an eine tolle Aussichtsplattform. Von dort konnte man toll auf den Eingangsbereich des Naturreservates und die umliegenden Berge blicken. John wurde mit zunehmender Zeit etwas ungeduldig, da er erwartete, dass der Weg auf einen Gipfel führte. Doch dem war nicht so. Wir schlugen uns noch gut 1-2h ahnungslos durch das Gelände, die Sonne brannte auf uns nieder und die Hitze schien nicht abzunehmen. Warum sind wir bloß nicht früher losgegangen? Es ging auf und ab, nach links und rechts, aber wir konnten nicht erkennen, wo uns der Wanderweg hinführte. Doch dann ging es ein letztes Mal bergauf und weiter oben erkannten wir riesige Felsbrocken mit einer weiteren Aussichtsplattform. Wir erreichten zwar keinen klassischen „Berggipfel“ als Ziel, dafür war die Aussicht mindestens genauso gut. Man konnte über einen großen Bereich des Naturreservates blicken, die

umliegenden Berge bestaunen und ja, sogar die Forschungsstation in der Ferne erkennen! Oben angekommen, wurde erst mal ausgeruht und gegessen. Der Abstieg war dafür umso spektakulärer. Der Weg ging zwischen riesigen Felsbrocken, die man hier oft sieht, zwischendurch. Teile des Weges waren mit Strickleitern oder Brücken versehen. Es gab sogar einen Picknickplatz, der sich unterhalb eines hervorstehenden Felsen befand. Nach ca. 3-3,5 h kamen wir am Office an und dann wurden zu allererst unsere Trinkflaschen mit Wasser aufgefüllt. Wir waren ja schließlich noch nicht zu Hause und uns stand noch ein langer Weg zur Research Station bevor. Es war mittlerweile schon drei Uhr

Nachmittag, aber die Sonne schien immer noch unerträglich zu sein! Trotz allem packten John und ich unsere letzte Motivation zusammen und nahmen die letzten Kilometer in Angriff. Irgendwie schienen der Heimweg am mühsamsten zu sein: erschöpft und schon ein wenig am Ende unserer Kräfte mussten wir nochmals bergauf laufen. Vor der letzten Steigung teilten wir uns noch den letzten „Jungle Energy Bar“ um unsere Energiereserven aufzutanken. Schlussendlich kamen wir sonnengetankt (oder gebrannt?), erschöpft und schweißtriefend nach fünf Stunden an der Research Station an und konnten eine angenehme, kühle Dusche genießen.

## RESEARCH STATION POWER UP

*By Ed Yuen*

Research Station Power Up

In the past couple of year our 12 volts batteries in our solar power system had not been performing very well. As the winter and breeding season is approaching, in order to reduce any unnecessary interruption of our work, we will have to make sure that we have sufficient power for the freezer to store our blood samples and for our equipments. Hence, we had recently replaced our aging 12 volts car batteries with the new 2 volts solar batteries for our solar power system. Although, the new batteries are much more expensive than the 12 volts batteries, but not only the life spans of the new batteries are much longer, they also store more than double the amount of power. Combined with the 6 new solar panels that we installed recently, this should power up our research station nicely even during the many rainy days in the coming winter.



12 cells of 2 Volt each. Resulting into a total of Volt, with 1600 Amps. Each cell weights 145kg, so its 1.7t in total!!! The smaller cell at the very front still has to be exchanged, as the cell that was delivered was faulty.

## 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

	January	February	March	Total last quarter
Visits of stripedmouse.com	4 320	4 700	5 177	<b>14 197</b>
Downloads FSM-TIMES, SGM-Spiegel	222	175	135	<b>532</b>

## TITEL: WAS HAST DU GESAGT? KOMMUNIKATION BEI PAVIANEN

Von Claudia Menzel

Meine ersten Erfahrungen mit Pavianen machte ich in Kapstadt, eine Weile bevor ich nach Goegap kam. Ich möchte euch folgende Geschichte erzählen. Meine Mutti und ich besuchten das Kap der Guten Hoffnung. Im Park waren überall Schilder angebracht: Baboons are dangerous! Don't feed! Das war auch nicht unsere Absicht. Als wir eine grosse Pavian-Gruppe sahen, stoppten wir das Auto. Meine Mutti stieg aus, um ein paar Bilder zu machen. Als ich im geschlossenen Auto sass, ahnte ich, dass der kleine Pavian meiner Mutti die Kamera wegnehmen würde. Aber die Geschichte hat ein anderes Ende. Denn in der Zwischenzeit näherte sich ein sehr grosses Männchen dem Auto. Ich dachte mir erst nichts dabei, aber dann öffnete (!) er einfach die Autotür und stieg ein! Ich stieg so schnell wie möglich aus. Das Männchen fand schnell unsere

Essensvorräte, nahm sich ein paar Tütensuppen und verschwand.

Als ich sah, wie clever diese Tiere sind, ergriff mich Faszination, aber auch gleichzeitig Respekt.

Einige Wochen später kam ich in Goegap an. Ich hatte die Geschichte schon fast wieder vergessen, als ich bemerkte, dass Paviane in der Nähe der Station leben. Ich wollte wissen, was ihre Rufe bedeuten, die ich jeden Tag höre. Worüber unterhalten sie sich? Wie kann ich erkennen, ob sie relaxed oder aggressiv sind? Ich begann zu lesen.

Die hier vorkommende Spezies *Papio cynocephalus ursinus* ist eine Unterart des Steppenpavians. Es handelt sich um einen grossen Primaten (mit bis zu 50 kg) und einer hundeartigen Schnauze und einem „gebrochenem“ Schwanz. Die Männchen sind in der Regel bedeutend grösser als die Weibchen. Diese Art besitzt eine grosse



Habitattoleranz und ist weit verbreitet. Für weitere allgemeine Informationen über den Steppenpavian siehe SGM-Spiegel 16.

Paviane leben in Gruppen, mit gewöhnlich 30 bis 40 Mitgliedern. Sie leben in einer „Viel-Männchen-Gesellschaft“ und innerhalb einer Gruppe sind alle Männchen dominant über die Weibchen. Es existiert eine strikte und stabile Rangordnung. Kommunikation ist sehr wichtig für die Gruppenorganisation, denn die Aktivitäten innerhalb der Gruppe ist stark organisiert: annähernd 90 Prozent aller Individuen machen zur selben Zeit das Gleiche. Paviane haben ein grosses Repertoire an verschiedenen Gesichtsausdrücken, Körpersprachesignalen und Lautäusserungen.

Der Geruchssinn ist bei Pavianen nicht sehr wichtig. Dennoch gibt es olfaktorische Kommunikation. Ein Beispiel ist das Genital-Riechen als Antwort auf das Präsentierverhalten der Weibchen.

Es gibt verschiedene taktile Signale. Das Wichtigste ist das soziale „Grooming“ (Putzverhalten). Es ist wichtig um Fell und Haut zu pflegen, es stärkt die sozialen Bindungen und es beruhigt in stressigen Situationen. Es ermöglicht niedrigrangigen Individuen freundlichen Kontakt mit höherrangigen zu pflegen. Wenn man beobachtet, wer wen wie (relaxed oder gespannt) groomt, kann man das komplexe Netz der Beziehungen und den Rangstatus erkennen. Mütter groomen ihre eigenen Kinder öfter, als andere Mitglieder der Gruppe. Wenn ein Jungtier oder ein Weibchen ein Baby eines anderen Weibchens haben will (zum Spielen oder pflegen), dann groomt dieses die

Mutter des Babies um das Kleine zu bekommen.

Paviane kuscheln nicht intensiv miteinander. Aber neben dem Grooming gibt es noch anderen Körperkontakt, wie einfach nur nebeneinander Sitzen, Küssen, Nase-zu-Nase-Kontakt oder einfach nur einander berühren um sich zu beruhigen.

Visuelle Signale sind sehr wichtig. Man kann Veränderungen in Gesichtsausdrücken, der Körperhaltung oder der Position des Schwanzes erkennen. Der Winkel des Schwanzes ist ein Indikator für das Alter. Der untere Teil des Schwanzes ist mehr aufgerichtet und die Biegung ist stärker mit dem Alter. Nur kleine Veränderungen der normalen Bewegung höher rangiger Tiere kann ein Zeichen für die Gruppenmitglieder sein, die aktuelle Tätigkeit zu beenden oder die einfach die Richtung zu wechseln.

Die Haltung und die Bewegung von Affen zeigt oft den Status des Tieres innerhalb der Gruppe an. Ein selbstsicheres Tier erscheint relaxed, läuft mit ausgestreckten Beinen und schaut sich um. Ein Untergeordneter läuft mit gekrümmten Rücken, geneigten Beinen und eingezogenem Schwanz. Du kannst ein dominantes Männchen daran erkennen, dass es etwas entfernt von der Gruppe sitzt auf einem Ausguck und die Umgebung beobachtet („Wachhund“).

Es gibt einige visuelle Signale, die Dominanz ausdrücken. Beispiele dafür sind Starren, Augenbrauen heben und schnelles Blinzeln, Liegestütze machen, auf den Boden schlagen, den Boden reiben, Zweige schütteln, sich auf die Hinterbeine stellen, vorwärts springen und

angreifen bzw. vorwärts stürmen. Zähne knirschen, Zeigen der Eckzähne und Penispräsentieren wird nur von Männchen gezeigt.

Falls ein Männchen von einem niedriger rangigen Männchen belästigt wird, werden oft die Eckzähne präsentiert und man kann ein Drohgähnen sehen. Drohgähnen wird oft zusammen mit Augenbrauen heben, Ohren wedeln und anderen aggressiven Gesten gezeigt.

Unterwürfige Verhaltensweisen sind Vermeiden des Anderen, soziales Präsentieren, schnelles hin- und hergucken, nicht direktes Starren mit weiten Augen, aufgerichteter Schwanz, sich bücken und auf dem Bauch liegen. Falls du unbeabsichtigt in eine Paviangruppe gerätst und dir die Männchen ihre riesigen Zähne zeigen, solltest du wissen, was zu tun ist, um unterwürfig zu wirken. Beispielsweise kannst du dem Blickkontakt vermeiden oder ungerichtet irgendwo hinstarren.

Soziales Präsentieren meint stehend oder gebückt die Hinterseite dem Gegenüber zeigen, sodass man die Genitalien sieht. Man kann es in verschiedenen Situationen beobachten. Die verbreiterte Form ist ein kurzes Grüssen (meist von einem niedrig zu einem höherrangigen Individuum). Soziales Präsentieren ist ein offensichtliches und das wichtigste Instrument um friedliche Intentionen zu zeigen.

Freundliche und beruhigende Verhaltensweisen (auch immer gut zu wissen) sind grooming erbitten, Lippen schmatzen grüssen und zweibeinig vor einem anderen Pavian stehen.

Lautäusserungen sind sehr wichtig und es haben sich viele unterschiedliche Rufe entwickelt.

Laute Rufe von Männchen haben die Funktion herumstreuende Gruppenmitglieder zu rufen und anderen Gruppen auf Abstand zu halten indem man zeigt, dass hier jemand ist. Diese Rufe sind für weite Distanzen gedacht. Des weiteren kann man aus ihnen die Position und die Identität des Rufers herausfiltern. Grelle Rufe sind eher für kurze Distanzen und werden meist von Gesichtsausdrücken begleitet. Es handelt sich also um ein Signal um die Aufmerksamkeit auf ein bestimmten Gesichtsausdruck zu lenken.

Bei einer Störung von ausserhalb (zum Beispiel du oder ein Feind) oder bei Aggressionen innerhalb oder zwischen Gruppen, kann man ein lautes und tiefes „Wahoo“ hören, das oft in 2-5 Sekundenintervallen wiederholt wird. Dieser Ruf bedeutet, dass dort jemand ist. Eine sanftere Version ist das Grunzen, „uh-huh“.

Wenn ein Pavian Angst ausdrückt, hört man ein wiederholtes Kreischen. Dies ist die gewöhnliche Antwort auf Aggression von einem höher rangigen Gruppenmitglied. Die Funktion liegt darin, weitere Aggression zu verhindern.

Ein schrilles Bellen ist ein Alarmsignal. Es ist ein einfaches, scharfes und explosives Signal und ist meist Antwort auf eine Störung von Aussen.

Ein hundeähnliches Bellen kann man hören, wenn ein Individuum oder eine Untergruppe getrennt von den Anderen ist.

Schwaches und ruhiges Grunzen ist ein freundliches Signal. Es sehr

häufig und vor allem zu hören, wenn sich ein Pavian einem anderen nähert.

Wenn junge Paviane miteinander spielen kann man einen schnatternden, nasalen, schnellen Grunzlaut hören.

Empfängnisbereite Weibchen geben ein gedämpftes Grollen von sich. Der Mund ist dabei fast geschlossen. Dieser Laut ist mit Kopulation assoziiert.

Es gibt noch einige andere Rufe, aber dies hier aufgelisteten sind die Wichtigsten.

Ich hoffe, dass du dich jetzt „Pavianhaft“ verhalten kannst, wenn du in eine entsprechende Situation kommst.

Nur noch ein Tipp am Ende: Verriegel die Autotüren, wenn du auf eine Paviangruppe stösst.

Communication is very important for the group organization. The activities of the members are highly coordinated – about 90% do the same thing at the same time. In Baboons a huge repertoire of facial expressions, body language and vocal signals is developed.

The sense of smell is secondary, but there is still olfactory communication. The genital sniffing for example is a response to female presenting. So the males can check the sexual status of the female.

There are different tactile signals. The most important one is the social grooming. It is useful to care the coat and the skin, to strengthen the social bonding and it is reassuring in stressful moments. It offers a way for a lower ranking individual to approach and make friendly contact with dominant animals. The direction of grooming is usually from lower to higher rank, and males receiving much more grooming than they give. If you observe who grooms whom and how (relaxed or tense) you can understand the complex web of relationships and the rank order within the troop. Mothers groom their own infants more often than they groom other individuals. If a juvenile or adult female want to handle a small infant, then it attempt to gain access by grooming its mother. Baboons don't snuggle intensively up to each other. But there is among the social grooming other body contact, like sitting together, kissing, nose-to-nose-greeting or just touching to calm down.

Visual signals are very important. You can see different face expressions or differences in body language like changes in movements or how they

hold their tail. The angle of the tail is an indicator of age. The lower part of the tail stands more erect and the bend becomes more acute with age.

Just subtle changes in normal locomotion by high ranking troop members give the signal for a troop to set off on the day's foraging or to change direction.

The postures and movements of monkey often reflect their social status. A confident animal appears relaxed, walks with its limbs extended and back level, looks around casually, and appears equally at ease when resting. A subordinate walks with back hunched, limbs somewhat bents, tail low and sits hunched over lowers its head. You can recognize the dominant males by their "watchdog role" – behavior: they sit apart on high vantage points, facing away from the group and scan.

There are some visual signals for dominance. Examples for agonistic behavior are staring, with eyebrow-raising and rapid-blinking, bristling, push-ups, slapping ground, rubbing ground, branch-shaking, rearing on hind legs, lunging and charging. Tooth-grinding, canine display and penile display are only performed by males.

If a male is harassed by a lower ranking male, you often can see canine display or threat-yawning by the higher ranking male. Threat-yawning is accompanied by eyebrow-raising, ear-fluttering and other aggressive gestures.

Submissive displays are avoidance, social presenting, rapid-glancing, fear grimace, undirected staring with eyes wide, erecting tail, crouching and lying prone. If you enter a group unintentionally and the strong males

## TITLE: WHAT DO YOU WANT TO SAY? COMMUNICATION IN BABOONS

By Claudia Menzel

I had my first experiences with baboons in Cape Town – a couple of weeks before I came to Goegap. I want to tell you the following story. My mum and I visited the Cape of Good Hope. Everywhere were signs: Baboons are dangerous! Don't feed! That was not what we wanted to do. As we saw a big baboon troop, my mum stopped the car and went out to take some pictures. I stayed in the closed car. I guessed that the small baboon or its mother would try to rob the camera of my mum. But the story has another ending. A huge male approached to the car. This male opened (!) the door and entered the car! I left the car very quickly. He figured out where our food was and he took some instant soups. Afterwards he promptly disappeared. After I saw how clever these animals are, I became fascinated of them. And I had respect for them, too.

A few weeks later I came to Goegap. As soon as I realized that baboons are near the station, I was interested. I wanted to know what the calls meant I heard every day. What are they talking about? How can I recognize whether they are relaxed or aggressive? I started to read...

The species that occurs here is the Chacma Baboon (*Papio cynocephalus ursinus*), a subspecies of the Savanna Baboon. It is a large primate (< 50 kg) with a doglike snout and a "broken" tail. The males are larger than the females. They have a wide habitat tolerance. For more general information, please see SGM-Spiegel 16.

Baboons live in groups with usually 30-40 individuals. They have a multimale society. Within a troop all adult males are dominant over all females. A strict and stable rank hierarchy exists between the adult females and their offspring.

show you their teeth you should know what to do. For example you can avert the gaze of the baboon or stare undirected. Grimacing with open-mouth, combined with yacking is a intense expression of fear and submission.

Social presenting consists of standing or crouching with the rear end pointing toward the receiver and tail diverted to display the genitalia. It is seen in different situations. In its commonest form, presenting is a brief greeting (usually by a lower ranking to a higher ranking individual). Social presenting is the most obvious and important display of peaceable intentions.

Friendly or reassuring displays (also good to know) are grooming solicitation, lip-smacking, greeting and standing bipedally before another baboon.

The vocal communication is important and there are many different calls.

Male loud calls, which function to rally scattered group members and keep rival groups at a distance, are designed to carry far and to indicate the location and identity of the caller. In baboons harsh calls are often emitted at close range and are typically accompanied by facial displays. Such calls may function at least partly to direct attention to facial expressions, resulting in compound visual-vocal signals.

If an external disturbance occur or there are inter- or intra-troop aggressions between males, you can hear a deep, loud "wahoo", often

repeated at 2-5 sec intervals. This call advertises the male presence and arousal. It is a distance increasing signal. A softer version of this two-phase bark is the grunting ("uh-huh").

If an individual expresses fear you can hear a repeated screeching (highly pitched screams). It is the usual response to aggression by a dominant individual, as when chased by an adult male. The function is to inhibit more aggression.

The shrill bark is an alarm signal. It is a single, sharp and explosive sound given especially in response to sudden disturbance.

A doglike bark is a contact call given by individuals or subgroups separated from troop.

Low, soft and rhythmic grunts signal friendly intentions. It is given during approach. It is the close-range contact and progression call – the commonest vocalization.

You can hear a chattering, a nasal, rapid and gruntlike sound, when young baboons are playing.

Estrous females give a muffled growl. The sound is given with the mouth nearly closed. It is associated with copulation.

There are a lot of more calls and other signals. These are the most important.

I hope now you can behave baboon-like if you are in a situation where you have to.

Just one more tip at the end: lock your car doors when you get close to a baboon-troop.

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## NEWS AND INFORMATION ABOUT PLANTS AND ANIMALS

### KLIMA IN NAMAQUALAND

*Von Patricia Biedermann*

Namaqualand liegt im Nordwesten Südafrikas, in der Provinz Northern Cape. Im Westen der Region liegt der atlantischen Ozean als natürliche Grenze, im Süden wird Namaqualand durch eine Linie von der Küste bis zur Stadt Kliprand begrenzt. Die östlichste Linie wird zwischen den Städten Kliprand und Pella Mission, am Orange River, gebildet. Im Norden grenzt die Region an Namibia, obwohl Teile des Namaqualandes bis zum Nachbarland Südafrikas hinaufreichen. Namaqualand ist ein Teil der Succulenten-Karoo.

Die Landschaft und die Natur des Namaqualandes werden vorwiegend vom Klima einer Halbwüste geprägt. Auch eine Halbwüste, im speziellen Namaqualand, kann vier unterschiedliche Jahreszeiten, wie Frühling, Sommer, Herbst und Winter hervorbringen. Das heisst, auch wenn wir hier in einer Halbwüste leben, ist es nicht immer trocken, heiss und staubig. Die Wüste im Norden Südafrikas wird durch drei

unterschiedliche Faktoren gekennzeichnet. Der erste Faktor ist der prognostizierbare Regen oder die Regenzeit, die jährlich eintrifft. Weiteres hat der bekannte Benguela



Regen in Goegap Feb. 2010

Strom vom Atlantik einen starken Einfluss auf das Klima. Der dritte und letzte grosse Faktor ist, dass sich das Inland auf einem Plateau befindet. Diese drei Komponenten bilden das Klima im Namaqualand, das an der Küste sehr angenehm sein kann während weiter im Land vorwiegend heisses und trockenes Wetter vorherrscht.

Die Regenzeit trifft immerzu jährlich im Namaqualand ein. Große Dürren oder lange Trockenzeiten, die über Jahre andauern sind hier unüblich, auch in der trockenen Richtersveld Region. Im Gegensatz zu anderen Winterregen-Halbwüsten in Amerika oder Nordafrika, wo jahrelang kein Tropfen Regen fällt und wenn, dann nur sintflutartig und kurz, gibt es im Namaqualand eine Saison von Mai bis Mitte Oktober, in der immer wieder Regen fällt.

Der vorwiegend kalte Benguela Strom hat seinen Ursprung in der Antarktis und beeinflusst wesentlich das Klima an der Westküste. Die Luft über dem kalten Wasser kann kaum Feuchtigkeit aufnehmen und somit können sich keine Regenwolken bilden und die Region bleibt die meiste Zeit des Jahres trocken. Der Benguela Strom ist aber auch verantwortlich für ein gemässigttes Klima entlang der Küste Namaqualands. Die Temperaturen an der Küste erreichen im Sommer eine Durchschnittstemperatur von 25°C. Weiter im Landesinneren, wo der Wind nicht mehr hinzukommt, kann die Durchschnittstemperatur 30°C erreichen und im Richtersveld und Knervlakte sogar über 40°C. Doch der Benguela Strom bewirkt auch, dass die Wintertemperaturen nicht in das Extreme fallen und somit an der

Küste durchschnittliche Mindesttemperaturen von 8°C und weiter im Land 5°C üblich sind. Doch es kann auch in der Halbwüste „richtig“ Winter werden. Der Ort Kamiesberg ist bekannt im Namaqualand für Schnee und Winterfrost.



Nebel in Port Nolloth März 2010

Im Herbst bildet sich hier auch Nebel, wenn der Wind vom Atlantik schwächer und sich keine Turbulenzen bilden, die den Nebel normalerweise verdrängen. Port Nolloth, ein kleines Städtchen an der Küste, weist 150 Nebeltage pro Jahr auf. Dies ist deutlich das Maximum an Nebeltage im Namaqualand. Die Nebelbildung nimmt dann stetig in Richtung Landesinnere ab. Das heisst, 10km weiter landeinwärts, nimmt die Nebelbildung schon um ca. 50% ab. Desto mehr man sich von der Küste wegbewegt, umso weniger Nebel findet man vor. Aber auch der Nebel spielt in einer Halbwüste eine wichtige Rolle, denn er kann eine alternative Wasserquelle für Wüstenpflanzen sein.

Im Herbst und Frühling erscheint häufig Tau, dank der Nähe zum kalten Atlantik. Bei Tau, der im Namaqualand stark ausfallen kann, kühlt humide Luft in der Nacht ab,

wenn die Temperatur unter den Taupunkt fällt. Im Sommer ist es meist zu trocken für Tau und im Winter ist die Luft zu wenig humid. Der letzte, grosse Parameter, der das Klima im Nordwesten Südafrikas prägt, ist das Inlandplateau. Im Winter kann es einige Tage sehr warm und trocken an der Küste werden. Das Wetter wird dann kurzzeitig sehr sommerlich, dies ist aber auch ein Vorzeichen für eine Kaltfront. Dieses Phänomen wird in Südafrika als „berg winds“ bezeichnet. Ein warmer, trockener Wind, der vom Inlandplateau Richtung Küste weht und manchmal auch stürmisch sein kann. Herabsteigende Luft bildet sich über

dem Land und bewegt sich vom Hochdruckgebiet zum Tiefdruckgebiet an der Küste. Währenddessen werden einzelne Luftmoleküle zusammengedrückt und die Luft heizt sich somit auf. Erreicht der Wind schlussendlich die Küste, können dadurch warme, trockene Temperaturen von 35°C entstehen. „Berg winds“ halten im Durchschnitt 1-3 Tage an und bewegen sich gegen den Uhrzeigersinn an der Südafrikanischen Küste entlang, bis sie 6-8 Tage später Durban erreichen. Danach trifft zumeist eine subpolare Kaltfront ein. „Berg winds“ spielen auch für den Pflanzenwuchs und die Pflanzenbestäubung eine wichtige Rolle.

#### Klimatabelle Namaqualand

Jahreszeit	Monate	Durchschnittstemperatur		Durchschnittlicher Regenfall
		Min.	Max.	
Sommer	Nov.- Feb.	Min. 17°C	Max. 33°C	4 mm
Herbst	März- April	Min. 14°C	Max 29°C	10mm
Winter	Mai- Aug.	Min. 2°C	Max. 19°C	50mm
Frühling	Sept.- Okt.	Min. 7°C	Max. 25°C	15mm

Rekordtemperaturen wurden 1939 in Goodhouse am Orange River gemessen: 47.8°C! Die Region am Orange River erreicht normal „nur“ eine Höchsttemperatur von 40°C. Sutherland hingegen, einer der

kältesten Städte in Südafrikas überhaupt, hat im Winter ein Durchschnittsminimum von -6°C und Schnee bedeckt häufig die umliegenden Berge.

## PALE CHANTING GOSHAWK (*MELIERAX CANORUS*)

By Erwan ChereI

45cm tall, 110cm wingspan.

This endemic raptor of the southern Africa is a nice grey bird with black wing tips. It is not easy to spot them because they are shy and discreet. But sometimes we saw them when we were working on the field, they only rarely eat striped mouse and I never saw them hunting on the field. They are very similar to the dark chanting goshawk but this other species doesn't live in Namaqualand. If you want to observe them, you should try to hear them because they often call, and then have a look on trees and utility perches where they perch often. They are very graceful birds, so it worth to look for them.

Pale chanting goshawks usually breed in Kalahari and Karoo. They build the nest in trees or bushes,

often close to a watercourse. They lay from August to September and have two eggs per clutch - sometimes if the clutch fails early, they could have a second one. Most of the care is provided by the female during the incubation period and the nestling period. Every year a new nest is built.



## CONFERENCES, PRESENTATIONS AND PUBLICATIONS

### PUBLICATIONS



This year we already published two papers, both in very good journals. In fact, our publication in the *Journal of Animal Ecology* is in my opinion the best paper ever from the striped mouse project. It contains data from 8 years of field studies and shows how the social organization of striped mice can change depending on population density and reproductive competition, from solitary living to extended family groups. We are also very proud that the striped mouse made it on the title page of the *Journal of Animal Ecology*. A very nice picture that was taken by Gaby Schmolh.

Schradin C, König B, Pillay N (2010) Reproductive competition favours solitary living while ecological constraints impose group-living in African striped mice. *Journal of Animal Ecology* **79**, 515-521.

1. Social groups typically form due to delayed dispersal of adult offspring when no opportunities for independent breeding exist, or the costs of dispersal are higher than the costs of remaining philopatric. Ecological constraints are thought to be a main reason for group-living in animals.
2. Reproductive competition within groups can induce high costs of philopatry, and is thought to be a main reason for solitary living.
3. Experimental manipulation of reproductive competition is difficult. One solution is to compare sociality between periods with and without reproductive competition.

4. Here, we show empirically in a 8 year field study that striped mice (*Rhabdomys pumilio*) of both sexes were group-living during the breeding season when population density was high but solitary living when population density was low, supporting the ecological constraints model.
5. After the breeding season, in the absence of reproductive competition, the positive correlation between population density and percentage of group-living striped mice was absent. Almost all striped mice were group-living even under very low population densities. This supports the reproductive competition model.
6. Ambient temperature, food availability and predation pressure, did not influence sociality.
7. In captivity, the costs of reproductive competition in communal groups include female infanticide and aggression between females.
8. We conclude that group-living is favoured by constraints imposed through habitat saturation and by its benefits (improved thermoregulation by huddling, group-territoriality and predator avoidance), and that reproductive competition is a major force favouring solitary living in striped mice.

Schradin C, Schmohl G, Rödel HG, *et al.* (2010) Female home range size is regulated by resource distribution and intraspecific competition: a long-term field study. *Animal Behaviour* **79**, 195-203.

The size of an individual's home range is an important feature, influencing reproduction and survival, but it can vary considerably among both populations and individuals. The factors accounting for such variation are still poorly understood, and comprehensive long-term field studies considering various environmental factors that influence home range size are rare. We investigated the effects of seasonality, availability of food, cover, number of direct neighbours and the relative individual body mass on home range sizes in 125 adult female striped mice, *Rhabdomys pumilio*, in South Africa from 2004 to 2008. We used radiotelemetry to estimate home range sizes, trapping to determine the number of direct neighbours, and plant surveys in every home range to determine availability of food and cover. Home ranges were smaller when food quantity was high, many territorial neighbours were present, females had a relatively small body mass and during the nonbreeding season. We conclude that the availability of food resources and intraspecific competition are the main factors influencing home range size in female striped mice. Females enlarged their home ranges when territorial neighbours were few, and there was a significant positive correlation between home range size and quantity of food plants. This indicates that home range size might not reflect the minimal trade-off between access to resources that allow for a female's survival and lowest cost for defending and foraging in that area. Instead, we propose a hypothesis for future research that female striped mice occupy areas several times larger than needed to improve their fitness by providing resources for future offspring.

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## Financial report for 2009

By CARSTEN SCHRADIN

In 2009, we got altogether donations of 193 Euro, which is the lowest yearly amount we got so far! As in the years before, none of the readers of the FSM-TIMES made a donation, while three readers of the German SGM-Spiegel donated. The donation box at the office in Goegap also made a significant contribution this year.

Money was spent mainly for infrastructure of the research station,

investing in alternative energies. We bought a solar heater for hot water and 6 solar panels to double our energy production.

This year we bought new solar batteries for 4300 Euros. We will use all donations we get this year to pay for this investment. Please consider supporting us with a small contribution!

CATEGORY	INCOME IN EURO
AMOUNT CARRIED OVER FROM 2008	3374
DONATIONS SGM-SPIEGEL	53
DONATION BOX GOEGAP	140
<b>SUM</b>	<b>3567</b>
	<b>EXPENSES IN EURO</b>
CAMCORDER TO RECORD BEHAVIOR	111
SOLAR GEYSER FOR HOT WATER	1270
6 SOLAR PANELS	2200
<b>SUM</b>	<b>3581</b>
<b>TOTAL</b>	<b>-14</b>

## ACKNOWLEDGEMENTS

WE ARE GRATEFUL FOR EVERY DONATION MADE TO SUPPORT OUR RESEARCH !

## THE MOUSE'S TAIL

### THE WILD RESEARCH STATION JUST GOT WILDER

One night as Ivana opened the front door of the research station, a steenbok was drinking the water from the water hole we made for the birds in our garden. The steenbok look right back at Ivana before it disappeared back into the field.

On a different occasion, while I was checking the traps at group 64, I suddenly heard some galloping coming towards me. At first I thought it was Maxi (the reserve manager)

riding her horses, but why would she riding them into our field site. It came to my surprise as I looked up, two mountain zebras were standing just 10m away from me. As they saw me one of them turned around and ran but the other one stayed there and looked at me for a few second as if it was checking out what I was doing before it tried to catch up the other its friend.

### THE RETURN OF THE COBRA

After more than a year, we finally had another black splitting cobra found its way into our mice Wendy house. It not only gave our mice a fright of their live, it also remembered Ivana how exciting it could be living in the research station, as she was the first one to discover that. Lucky after the snake saw that terrified and terrifying Ivana, it ran for a hiding place that has only one way out. So, we follow

what Maxi (the reserve manager) taught us, placed a dark box with a small opening in front of the only escape route for the snake. After a while the snake went inside the box by itself (as they like to find somewhere dark as hiding place when threatened), we closed the opening carefully and removed the accidental trespasser back to a more nature environment.

### BAT-EARED FOXES

One of the most exciting animal spots of my time here happened the other day when Ivy and I spotted not one, not two, not three, four or five but six bat-eared foxes on the way to the farm one morning. The group was

made up of a father and mother, and four young cubs; an amazing sight and one which was followed with a lot of boasting back at the station that day.

## **GOLDEN MOUSE PRIZE-WINNERS**

**2009: DR. URS THALMANN**

**2008: KLEIN GOEGAP**

**2007: GOEGAP NATURE RESERVE**

**2006: DR. GUSTL ANZENBERGER**

**2005: JENS SCHRADIN**