



# BRinK

## Biological Research in Kuzikus

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[www.brink-namibia.com](http://www.brink-namibia.com)

### Seasonal changes in Kuzikus Wildlife Reserve

July was very cold, I awoke one day to find my bed-side drink of water an ice block! However, we kept warm with blankets and hot water bottles. Winter can be harsh in the desert with hot days and icy nights.



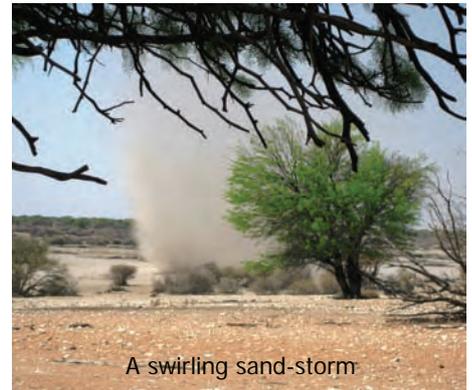
A plus side to this weather was the sparse vegetation which meant that visibility across the savannah was great. With grass being short we were able to see Cape Scrub Hares, a kangaroo-like Spring Hare and an Aardwolf while out doing research. We were studying birds this month and we approached transects on foot to decrease disturbance and allow us great opportunities to see other animals in Kuzikus.

The seasonal changes into August brought strong winds and mini-tornadoes. In the distance we would see bits of grass flying and swirling. As it came closer we would run inside to not get dust in our faces and those that weren't quick enough at covering it found their lunch covered in sand, yummm... crunchy! Emerging from the tents we found anything kept outside had blown to the other side of the camp! The sun sets and moon rises were dramatic at this time of the year. The dust in the air made both the sun and moon look bright red. Early mornings we sat up to see the sun rise on one side of the horizon while the moon set on the other.



In the cold winter an Agama makes the most of a volunteer's body heat, basking unrestrained on her hand to stay warm.

In September spring had arrived, and much to our relief the cold nights and dust storms were gone. The vegetation flourished and the desert was transformed to waving tall green grasses and flowers.



A swirling sand-storm

For just a few beautiful weeks the *Acacia mellifera* and *erioloba* were covered in flowers. The *erioloba* has pom-pom yellow flowers and the *mellifera's* flowers smelled so sweet, and as the name reflects, just like honey! With spring came young animals, and the pregnant oryx we had seen in July gave birth, bringing her calf close to camp. Birds sang as they competed for mates and the reserve flourished.

### The BRinK of discovery

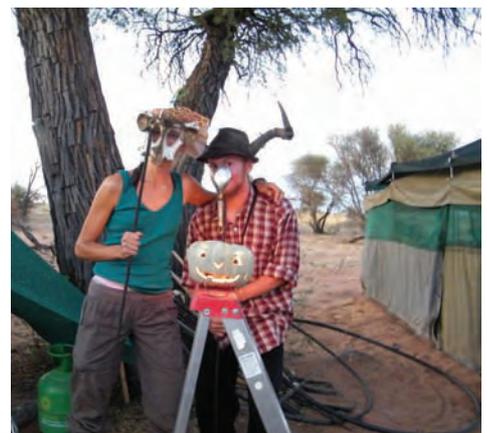
- ♦ Potjie is a traditional Namibian cauldron used on the fire (pg.1)
- ♦ Giant lizards can drink when they are upside-down! (pg.3)
- ♦ Male shrikes feed females to persuade them to mate (pg.3)
- ♦ Caterpillars confuse legs with trees (pg.2)
- ♦ BRinK wins the world cup! Well...in the BRinK world (pg.3)
- ♦ Mice can be "trap happy" or "trap shy" (pg.2)

### Strange visitors to camp

*A reindeer, a light trap, an oracle, an antelope, and an inbred mechanic in camp... whatever could this mean?*

Halloween of course!

We celebrated dressed in a variety of imaginative and strange costumes with a feast including "Potjie a la John" cooked on the fire, stuffed cabbage parcels, butternut squash on the coals, cake and pumpkin sweets. We invited Kuzikus guests who were amazed at how well we cooked on the fire and terrified by our carved pumpkin.



## Micromammal trapping

40% of all mammal species are rodents yet until now they have gone undocumented in Kuzikus. We chose to investigate ground dwelling small mammals with live trapping methods. We baited three types of trap with tasty foods such as rabbit food, apple and peanut butter and left these out day and night.



A pygmy mouse, *Mus indutus*

Caught rodents were measured, identified and marked so we would know if we caught them again. Interestingly rodents can be "trap happy" and "trap shy". Trap happy ones enjoy the food so much they actively seek traps out. With our making system we found we did catch some animals a few times.

Over 90 individuals were trapped, including 5 different species: Bushveld Gerbil, Grass Mouse, Pygmy Mouse, Rock Mouse, and the Hairy-footed Gerbil. 4 more were seen but not trapped including Acacia Rat, Gerbil Mouse, Brush-tailed Hairy-footed Gerbil and a glimpse of one unidentified. 18 species should occur in the Kuzikus biome according to the literature so we



Tiny Gerbil Mouse caught by hand!

are very pleased that we recorded half of these in only one month. We did not study shrews this year as they are insect eater but we plan to extend the study in the future to use insect bait in the traps. We also have been collecting owl pellets to pull apart to look for rodent skulls, this is another means of studying which rodents are present in an area and investigating population dynamics.

## Become a BRink volunteer! Special Christmas offer on now



BRink research volunteers live simply in a bush camp, close to nature.

Benefit as a Research Volunteer:

Daily research trips into the veldt teach you fieldwork techniques and ecology. You will gain experience, certification and professional biology contacts for your future

**10% off all projects!**

Apply by Jan 16th and pay only £747 for a four week project in Namibia.

### Birds and their calls

Where do birds live in Kuzikus? How do they communicate? Find out about bird diversity in Feb - March.

### Entomology: insect collecting

Insects are diverse, colourful and often very odd! Learn about insects and symbiotic relationships in April.

### Large mammals

Survey abundance of large African animals, important for population monitoring. Join us for this in May.

## A bug's life: what we have learnt about insects

Insects are fascinating. With a wide range of curious body shapes, bright colours and interesting behaviours they are indicators of ecosystem health and biodiversity. BRink began in 2008 with a small scale collection of insects, in an attempt to document species in Kuzikus. This year we ran a volunteer project to investigate insect diversity and research techniques.

We employed several surveying methods: traps, tree beating, ground sampling and collection by hand. We found that the light trap was the best method to catch most insect groups.

With all our different methods you would expect great results, which we

had. We collected 89 insect families! This included moths, beetles, wasps, ants, flies, praying mantis, dragonflies and bugs (a biological term...Hemiptera=bug). Ants were the dominant type of insect in every habitat we sampled, showing their diversity and adaptability. We displayed the insect specimens on entomological boards to be kept for Kuzikus' museum.



A pinned stink-bug (Pentatomidae) specimen



A tiny wasp (Hymenoptera) specimen

When studying insect habitat we found as grass diversity increases so does insect diversity. However, what is interesting is that at a certain point insect diversity drops, even if grass diversity keeps increasing. This seemingly strange result is known as the "paradox of enrichment" and gives us much to consider future studies.

## Gonometer attack!

It was the return of the caterpillar invasion in October. As with last year, these furry caterpillars covered the trees, eating them bare. All you could see on horizon were leafless camelthorn! October was hot as well, the perfect month for a refreshing dip in a water hole. Or at least that is what we thought until we found the water to be full of caterpillars. As well as spoiling our fun they interfered with our studies. When trying to do tree observations the researchers got attacked: the caterpillars seemed to be attracted by anything vertical so that when you look down there are several marching up your legs and you can see another dozen on the ground just on their way too! We got faster and faster at flicking them off with our pencils. Getting too close to the tree is risky business, they might just fall on you, oh horror!

## Monitoring the lizards

For the first time BRinK investigated the reptiles of Kuzikus. This project was hard work, with much preparation to do, digging pitfall traps and setting up a fence. Angola, one of the workers from the village on the reserve, helped. With him work was a lot quicker and he was interested in what we were doing. We used a few reptile tracking methods and day and night surveys.



A spotted sandveld lizard captured

The study was done in October when reptiles come out of hibernation. We managed to catch a cape thick-toed gecko, a spotted sandveld lizard, western three-striped skinks and a spotted sand lizard. But the highlight was finding a monitor lizard's home.

We thought of making a Hollywood film \*ATTACK OF THE GONOMETER\* maybe Arnie would like to join us in this successful production!

On a more serious note, birds were our allies in our war against insects, feasting hard this spring to be in good breeding condition. In camp we had an illusive visitor, a crimson breasted shrike. He woke us every morning with his very loud, metallic calling. It successfully attracted him a mate which he won over with food and they started nest building. Despite his volume it was hard to spot him. Everyone was hunting him down to try and get his photograph but it was virtually impossible and drove many of us to frustration! Well done to Céline, who managed finally to capture him on camera.



Turner's thick-toed gecko

During a tree surveys we noticed a patch of scaly skin in a tree hole. From the pattern and the beady scales we suspected a monitor lizard. To investigate we waited by the tree... waited for over 4 hours and nothing... All we could see was that the pattern of skin visible through hole was changing so it was at least moving within this hollow tree trunk. We realised we needed to attract it out somehow: with a water bowl and chicken eggs. Within 30mins it came out! The lizard was huge, over 1m long plus its tail! It ignored the eggs and went straight for the water. It hung onto the tree, upside down, drinking! When it had drunk enough, it turned around; it is incredible how such a large, stock creature is so flexible and has such good grip. We marked the tree on the GPS and will keep an eye on it from now on.

## BRiefly BRinK News in brief from our camp

### Bird diversity

The bird research was in July but all season birds visited camp as we had a small water bowl attracting scaly-feathered finches, violet eared waxbills and melba finches. They were fluffy in July with the cold and in colourful breeding plumage by September.



### BRinK's world cup

In July we watched the world cup on a big screen at the lodge. This was a real treat and a good social occasion for volunteers, lodge guests and local village staff. Then we held our own cup...Kuzikus vs BRinK and BRinK won!



### Rhino upsets research

A new Rhino calf is wonderful news for conservation, but we did have to abandon several transects to stay safe. Watching a rhino at sunset from the security of the car is an experience no-one will forget.



## Biodiversity appeals to all ages

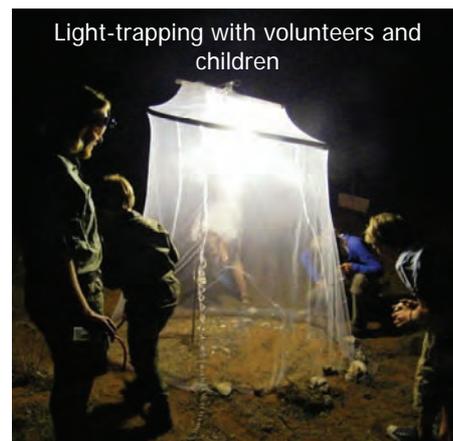
Education is a key part of preserving biodiversity and one aim of BRinK is to educate tourists to the reserve.



This year we had a young audience, Hugo. A child of the reserve guests really loved the entomology study joining in with

every light trap at night and helping out catching insects. Certainly he'll have a lot of funny stories to tell his friends when back to school! A great entomologist of the future we think.

Hugo wanted to see a reptile, but unfortunately we hadn't captured any yet during his visit. In the reptile project our first capture was a Cape thick-toed gecko which we dedicate to Hugo as thanks help with the insect study!



Light-trapping with volunteers and children

## Return to Kuzikus

*One BRinK project was not enough for Chris, here he tells why he came back for more.*

At the beginning, it was a joke: "If I fail my exams in September, I will have nothing to do until March and I will return in Kuzikus". So, be careful; jokes can come true! I had already volunteered on the small mammal project and now I took a fancy to the reptiles. Maybe I was too lazy to find another place or I said to myself that now they know me in the reserve, it will be easier to get in, but why spit on those opportunities? I also have to say that although I did not have a lot of time to organise myself the reptile project really motivated me. And anyway: "Why search somewhere else when you find a good place?" In fact, one month of camping in the middle of nowhere and chasing little rodent and reptile animals is just, for me, the perfect experience.



On night survey looking for geckos

To compare the projects, it was firstly funny to see how the landscape changes in just the three months I was there: more leaves, little oryx, different birds. For life in the camp, it was also, evidently, different on certain points. In August, with 5 of my friends there, it was hard to ever be any better. However in October with a smaller group, I felt more involved with decisions and, with the loads of changes we had to do to our design it was really informative, teaching me much about research study design.

To finish, in both months, doing camping and fieldwork in the amazing landscape in a relaxed atmosphere was awesome for me. Maybe a good reason to come back...again!

*Christophe Seppey*

## 2010 camp animals

The list of animals sharing our camp gets bigger every year. It is wonderful to live near them, hear them just outside your tent and wake up to see tracks from which to discover your night-time visitors. Here are our 2010 favourites:

