

# NEWS FROM ADDO ELEPHANT NATIONAL PARK



## Eastern Cape, South Africa November / December 2007



### **About this newsletter**

*This is a general newsletter – sent out on a monthly basis - about the latest happenings and developments in the Addo Elephant National Park. Please see contact details at the end for further enquiries*

### **RHINO COLLIDES WITH TOURIST CAR**

A black rhino collided with a tourist car in Addo Elephant National Park this Saturday, the 17th of November, causing extensive damage.

Hans and Jannie Reedijk of Hoeksche Waard in the Netherlands had driven their hired car into the main game viewing area of the Park at about 7am when they spotted a rhino coming out of the bush.

They stopped their vehicle in the hope of taking a photo of the rhino. Much to their surprise, the rhino ran towards the vehicle and then collided with it, damaging the car badly.



Hans & Jannie Reedijk with the damaged car

The Reedijks were not injured during the collision.

The rhino's front foot crumpled the bonnet while its head smashed into the front windscreen, centimeters away from Jannie Reedijk. The rhino then ran back into the bush.

The Reedijks were assisted by the staff of the Addo Elephant National Park to report the incident to the police and the hire car company, which provided a replacement car within a few hours.

"We would like to thank the staff of the Park for the excellent way in which they took care of us and assisted us", said Jannie Reedijk. Mrs Reedijk added that this was their third visit to Addo Elephant National Park and that they would certainly be back again.

This is the first recorded incident of a wild animal damaging a tourist vehicle in the history of the Addo Elephant National Park.

The South African National Parks (SANParks) veterinarian and conservation staff later located the male black rhino with the SANParks helicopter to check for any injuries. The rhino appeared to be free of serious injuries.

Addo Elephant National Park is home to the largest population of *Diceros bicornis bicornis* subspecies critically endangered black rhino in South Africa.

### **RESEARCH IS KEY TO SUSTAIN BALANCE OF ECOSYSTEM IN ADDO**

With the introduction of large predators in 2003, Addo Elephant National Park not only became a haven for the Big Seven but a more dangerous place for the resident herbivores.

Kudu, red hartebeest, ostrich, warthog and the largest herd of disease-free Cape buffalo in South Africa have had to become more vigilant to lions and spotted hyena on the prowl. Four years down the line, lions and hyenas have increased their numbers and consequently it has become important to determine exactly what effect these predators are having on prey species.

As a result, Dave Druce, a post-doctoral researcher affiliated to the Centre for African Conservation Ecology (ACE) at the Nelson Mandela Metropolitan University, is conducting an 18 month long study to determine the prey selection of lions and hyenas. Having started in September of this year, Druce will also be looking at the behaviour, social interactions and habitat use of both the lion and hyena population as well as those of the Cape buffalo.



“At the moment I am spending three days a week following a pack of lions or individual lions for at least 8 hours a day. I usually follow them in the early hours of the morning and late afternoon towards evening, while they are at their most active. Radio collars on buffalos are instrumental in tracking herds and determining the survivorship of individuals. I further rely heavily on the remains of skeletons and faecal samples of lion and hyena to indicate what species are being killed by these predators,” says Druce.

Eveready (Pty) Ltd, South Africa’s largest battery manufacturer is contributing to the success of the study. The environmentally conscious company is endorsing the project by sponsoring the batteries needed for equipment such as the GPS, radio tracking devices and rangefinders. In addition, Eveready will be providing Druce with other equipment, including torches and spotlights, without which tracking at night would be impossible.

Eveready’s Environmental Manager, René van der Merwe, said that Eveready’s commitment to the preservation of the environment not only involves the management of waste and emissions, but also supporting sustainable environmental management programmes and research. It is an honour for Eveready to be associated with the research undertaken by Druce at the Addo Elephant National Park, said Van der Merwe.

The research that will provide the Park with information about the prey selection of key predators is vital to ensure that we make the correct management decisions in the Park. Park management needs to ensure that a balanced, natural ecosystem is conserved and hence it is important to determine how lions and hyenas are affecting the system, as well as whether prey species such as buffalo have adapted to the predation risk.

Druce will also determine spotted hyena numbers by monitoring their den sites in the Park. He said each hyena has a distinctive coat pattern, which allows them to recognise individuals once photographs have been taken of each side of the body.

### Play Your Part

You can contribute to research efforts by collecting photos of any spotted hyenas that are seen in the Park. Clear photos of the hyena’s body can be used to determine spot patterns on individuals. Send your photos to [meganb@sanparks.org](mailto:meganb@sanparks.org)  
Emails should not be more than 1MB in size

## SANPARKS SCIENTISTS SET TPCS'S IN ADDO ELEPHANT NATIONAL PARK



SANParks scientist in AENP thicket

“Monitoring how an ecosystem changes over time is a tricky business and determining how much change you can allow in a system is even more difficult” explained Dr Rina Grant, SANParks Systems Ecologist based in Skukuza. SANParks scientists and managers are striving to use an adaptive management system which allows for some changes in the ecosystem but uses detailed monitoring programmes to detect these potential changes and guide management decisions.

“This type of management approach allows for a more proactive stance to ecosystem issues, by predicting certain changes in a system rather than waiting for change events to occur. SANParks scientists, in with collaboration with various local and international institutions, have developed a system of Thresholds of Potential Concern or TPC’s.

These TPC’s are a set of operational goals that together define the patchiness of ecosystem’s conditions over space and time. TPC’s are set for a number of factors that play a role in the ecosystem including fire, water, alien plants and vegetation. Research has shown that the more “patchy” or “diverse” an area is, the more it is likely to be resilient to withstand changes. These TPC’s will address losses in this patchiness of an ecosystem. They are also designed to be an early warning system to prevent detrimental changes to the system, which could result in the loss of biodiversity such as the threat of an increase in alien species or the loss of tall trees in the veld.

“We have a mandate to conserve biodiversity in all our national parks and we are developing these TPC’s for all SANParks”, says Dr Rina Grant. Dr Grant and Dr Harry Biggs from Scientific Services in Skukuza, joined Angela Gaylard, the regional ecologist for the frontier region to discuss the thresholds of concerns for Addo Elephant National Park, Mountain Zebra National Park and Camdeboo National Park. They also met with Professor Graham Kerley from the Nelson Mandela Metropolitan University (NMMU) in Port Elizabeth, to discuss how studies that have been done in Addo can contribute to the setting of thresholds and approaches to monitoring. The group was also joined by Dr Dave Balfour, the Head of Scientific Services for the Eastern Cape Nature Conservation division to look at monitoring options and to see the effects of previous land uses in conservation areas.

“We appreciate help and input from outside institutions such as NMMU as they have extensive experience with the veld and animals in the Addo region as a result of the research they conduct here, and can help guide our decisions and set up practical and feasible monitoring programmes” says Dr Grant. With suitable monitoring programmes in place to see how the vegetation and animal numbers change over time, both scientists and managers will be better informed to make meaningful and appropriate management decisions in future.

(adapted from a story by Dr. Rina Grant and Michele Hofmeyr)

## CANADIAN GIRL SET EXAMPLE FOR YOUNGSTERS ACROSS THE GLOBE

Nine-year old Lola Douglas of Toronto, Canada was so inspired by what she heard about conservation in South Africa that she collected R900 to donate to Addo Elephant National Park.

Lola collected the money with the help of a friend, Georgia Koumantaros, also nine-years old. The two girls attend school at Jackman Public School in Toronto.



Lola Douglas and Park Manager, Norman Johnson

During a recent visit with her family to the Addo Elephant National Park, Lola handed over the donation to the Park Manager, Norman Johnson.

“I really enjoyed seeing the elephants in the Park. This is the first time I have seen elephants in the wild”, said Lola.

Lola added that she would like to see the donation used for one of the Park’s conservation education programmes or for elephant conservation. Johnson commended Lola for her interest in conservation.

“This young girl has really set an example for the younger generation in our country, and for youngsters across the globe”, said Johnson.

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*News from South African National Parks...*

### **Are Frogs and Elephants Friends?**

Elephants are hefty herbivores and are well known for their destructive feeding behaviour, which has been shown in areas around Africa to change the look of the landscape. But how does this affect the smaller creatures further along the food chain?

This is a question that is being tackled by an ambitious research programme being led by the Organisation for Tropical Studies (OTS) who are currently working in the Kruger National Park (KNP). This is part of a broader research programme being run by SANParks Scientific Services looking at the impact of elephants on biodiversity.

The focus of this particular study is looking at different frog communities in vegetation of different heights along the Sabie River. The idea behind this is to see if areas with shorter vegetation and more open areas have different species of frogs living there compared to those sections of the river which have tall trees and a closed canopy.

To see what goes hopping about in these areas, the team set out a series of 4 pitfall traps in 5 places with tall tree and 5 places with only shrubs and these were checked everyday. Fortunately KNP experienced some welcome early rain and this seemed to get the frogs out and about. “We collected 11 frog species during the survey” explained Dr Laurence Kruger from OTS “but it seems the frogs were enjoying the cooler wet weather and we caught lots of individuals of the same species. We also had other smaller creatures in the traps including scorpions, spiders, a few snakes and even skinks, which makes it interesting every time we check the traps. You are never sure of what you are going to find” explained Dr Kruger.



This initial survey found that there were equal numbers of frogs in both sample sites but of all the species collected, 3 species were only found in the sites with tall trees. So even though it seems that frogs are happy to move about in all areas, some species do have specific habitat requirements, in this case they prefer areas with tall trees. If these trees are lost from the ecosystem, it could be detrimental to these habitat specific species.

This is the first of many such surveys, which are done in conjunction with bird and small mammal surveys, throughout the KNP. It will be interesting to see how these trends differ in different landscapes of the park. All the frogs collected are taken back to the lab where they are correctly identified, photographed, weighed and returned to place they were collected from the next day.

Frogs were selected for this survey as global scientific research has shown that they are good indicators of how healthy an ecosystem is and if there is a problem, they are often absent or in lower numbers.

This has been shown to be true in areas that are highly polluted. Frogs are very sensitive to habitat change and if elephants are having an effect on their environment, surveys such as this will be able to determine if this is actually happening and how serious the problem is. Information collected during these surveys is valuable for scientists and park managers who have the difficult task of looking after all aspects of biodiversity from the smallest frog to the biggest elephant and everything in between.

(by Michele Hofmeyr)

### **Little Caterpillar, Big Impact**

If you've had the chance to visit Camdeboo National Park recently, you may have noticed that the veld which was so green has started to turn brown.

This miraculous transformation is caused by a small (1cm long) caterpillar commonly known as the karoo "rusper" with a scientific name of *Loxostege frustalis*. When there has been a drought, followed by good rains, these caterpillars hatch out and proceed to consume the karoo bush, particularly concentrating on *Pentzia* species. They defoliate the plants, causing the veld to look brown.

They then pupate into moths about 12mm long, brown with small white spots. If you have been in a karoo town at night (or even in Addo) you will see these moths drawn to the light in their thousands.

Two generations of moth are produced a year, in the spring and then again in March-April. The moths feed on nectar of flowers.

The effect of this caterpillar on the karoo ecosystem can be compared to the effect that fire has on grasslands. It rejuvenates the system. All the plant matter is reduced and the bush starts to grow again from scratch. This gives other species which may have been outcompeted before, a chance to grow again.

This is a natural process that occurs in a karoo ecosystem, much like the brown locust outbreaks which also occur here and as such, is left to run its natural course.

### **SANParks Real-Time Booking System Goes Live**

It is with great excitement that today, on their website's birthday, SANParks launches its real-time booking system on [www.sanparks.org](http://www.sanparks.org). Earlier this month at World Travel Market (WTM), in London, Minister of Environmental Affairs and Tourism, Mr. Marthinus van Schalkwyk, described the launch the SANParks real-time booking system as a move "that will catapult South Africa's premier conservation agency into a world class tourism agency which has embraced the potential presented by the online environment".

This system enables members of the public (but not yet the commissioned Travel Trade) to complete their entire booking online in a few relatively simple steps. After a once-off registration, clients can browse accommodation availability in various parks and camps, build an itinerary and pay conservation and accommodation fees with their credit cards wherever they are. The reservation is then confirmed through an email.

"This was the inevitable next step for SANParks to take, to keep us internationally competitive", said Van Schalkwyk. Over 580 million people worldwide used the internet last year and spent over R15 billion. Buying online and tourism products accounted for a high proportion of that spend.

Not only can a real-time booking system increase business, or access new markets, it also means that SANParks' established client base have more options to comfortably, confidently and conveniently book a visit to a South African national park. The system will also relieve the pressure on the SANParks call centre by empowering clients to book as and when it suits them.

The system has been designed to accommodate added functionality in the future, but for now SANParks is monitoring user feedback and assessing how the system performs. SANParks traditionally experiences very high volumes of traffic to the website and the reservations system at the beginning of each month when new accommodation becomes available, and during peak time, like school holidays. In order to ensure full integrity, an additional update takes place for about 2 hours every night. This, unfortunately, makes the system to be available 22/7, and not 24/7.

### Seized Vessel to be used in Anti-Poaching Operations



Mike Knight (left) and Advocate Ndzengu

A 13-metre inflatable semi-ridged vessel was handed over to South African National Parks (SANParks) Corporate Investigation Services on 28 November to be used in marine related anti-poaching operations.

The handover of the vessel is the result of a joint anti-poaching operation carried out during November 2005, on Bird Island in Algoa Bay by SANParks and Marine & Coastal Management, a division of the Department of Environmental Affairs & Tourism.

The vessel and a trailer, valued at approximately R200 000, were seized during anti-poaching operations involving the illegal harvesting of abalone.

The Asset Forfeiture Unit of the National Prosecuting Authority, with the assistance of SANParks Corporate Investigation Services, was then instrumental in ensuring a successful prosecution process and the eventual forfeiture of the vessel in April this year.

"This is the first time that a vessel has been successfully handed over to SANParks as a result of a joint anti-poaching operation", said Dr. Mike Knight, head of Park Planning & Development in SANParks, at the handover of the vessel.

Knight said: "This vessel can now be used in continuing efforts to prevent the illegal harvesting of our marine resources".

SANParks Corporate Investigation Services is responsible for providing support to Park management in the investigation, prevention and combating of environmental crimes and other illegal activity within SANParks.

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