



# ELEPHANT RESEARCH

— A · P · N · R —

## August 2007

by

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*In addition to our regular features, this edition will focus on the latest collaring operations.*

## Collaring Elephants 6<sup>th</sup> of June 2007



The cold morning air hit our faces with a frosty fierceness as we drove in the dark towards the Tanda Tula airstrip. The rising sun slowly heaved the ink black sky towards the west as streaks of gold settled on the eastern horizon. In the road ahead of us many pairs of dancing eyes were illuminated by the vehicle's light. As we advanced we realised that a pack of eight wild dogs were trotting down the road. We switched off the engine to fully appreciate the rarity of the moment. The wild dogs stopped to stare at us and then continued to canter past, heading south. Exhilarated by the sighting, we reached the airstrip to find that the warden of Klaserie, Colin Rowles and Dave and Sue Tindall had already seen the pack as they turned onto Argyle road some distance to the north. We spoke in

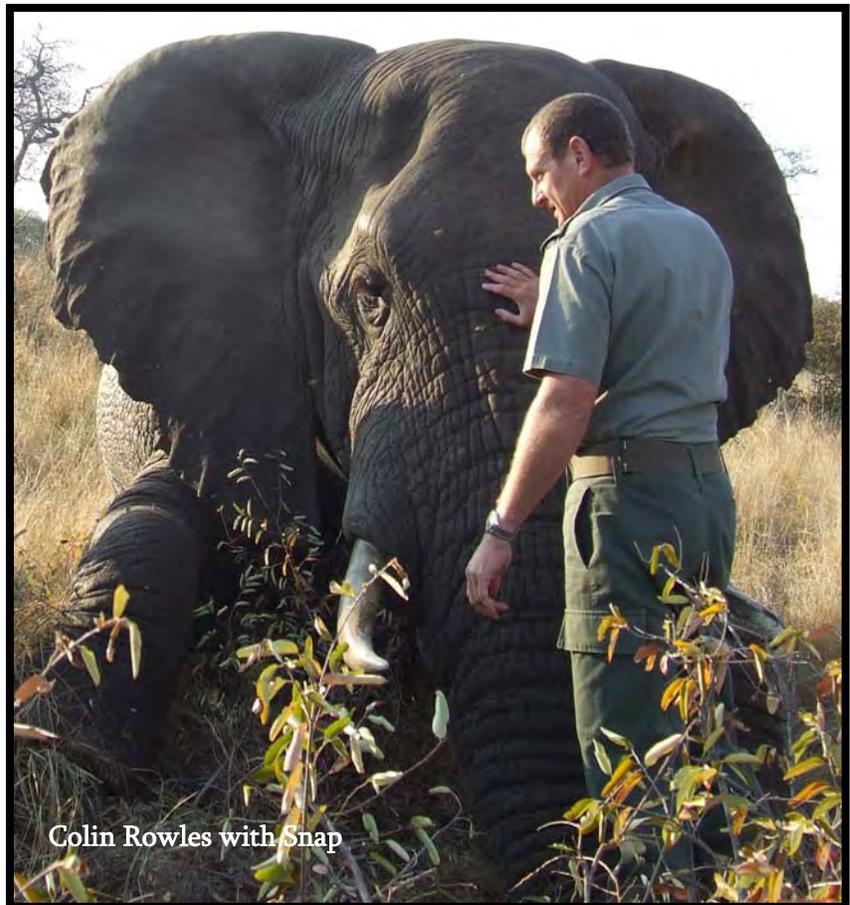
low whispers about the wild dogs while we waited for the pilot to arrive.

We planned to collar three bulls today which would be some of the last new study animals to be collared to reach our original objective of 30 elephants in the Associated Private Nature Reserves (APNR) by 2007. Once all the new study animals have been collared we will only need to replace

collars as the batteries became depleted. Two of the collars were donated by the Gower Trust which had previously paid for collars we had deployed on bulls named Gower and WESSA. The third collar was kindly donated by Brian and Claire Makare, of Olifants River Game Reserve who have faithfully been supporting the project for a number of years.

As elephants had been scarce the last couple of weeks, it took quite some time for the flying search party to return, confirming that a group of four bulls had been spotted further north. We decided to collar three of the animals in this bachelor herd especially as one bull seemed particularly young to be associating with the older bulls while no breeding herds was in sight. The ground crew moved in as a large bull named Snap (thus named as his left tusk had snapped off below the lip in 2003) sank to the ground. We all set to work fitting the collar, taking morphometric measurements and making dental impressions to age the bull. While we were collecting the necessary scientific data, Athol Moul, an artist and designer, approached the sleeping giant with large canvasses, paint brushes and a bucket of paint to collect impressions of the feet, skin, tail hairs and ear-patterns as part of a series of art-works which he will be producing to help raise funds for the project. Soon after Snap's new collar had been fitted the helicopter circled a large bull known to us as Iain. According to Dr. Cobus Raath, Iain seemed to have had experience in avoiding helicopters. He would move swiftly in one direction and then abruptly hide under a large tree while the helicopter

flew overhead with the crew left thinking that they would be intersecting his line of movement. As soon as Cobus wised up to Iain's tactic, he successfully administered the dart. Our last target was the little bull accompanying the older animals. Brian and Claire Makare, who had donated his collar, called him Namaste which appropriately means 'I respect you'. He seemed so small compared to the other bulls. His tooth moulds later revealed that he was only nine years old. Namaste will become a very interesting study animal, as with time, we will be able to find out which breeding herd he comes from, how far he ranges from their home range and which large bulls he uses to mentor him and for how long.



Colin Rowles with Snap

Subsequent to the collaring operation we have gone in search of Snap, Iain and Namaste. After lingering in the APNR for a few weeks, Namaste has moved a considerable distance south into the Kruger National Park. Interestingly, Snap and Iain rejoined after being collared and they have stuck close together ever since (refer to the maps on the following pages). Research work conducted by Tarryne Burke in

Pilansburg National Park had found that immobilisation events did not result in significant changes in elephant populations stress levels as measured by the analyses of plasma cortisol and faecal stress hormone metabolite concentrations. Her results indicate that in the case of cows, the social assurance of reuniting with natal herds after immobilisation events was sufficient to prevent the entire population from becoming stressed and also decreased the stress levels experienced by the individual that was darted and those of the herd from which the animal had been temporarily removed.

### **Thank you**

Dr. Cobus Raath, we appreciate your continual and professional support of our project within the APNR. We are very grateful to WESSA for administering the funds of the Gower Trust and for ensuring that two more collars were secured. We value the on-going support offered by Brian and Claire Makare and appreciate the funds for Namaste's collar. We are thankful for the donation of Whaledent made available by Leon Coetzer for aging the elephants from their dental impressions. Jacques and Antionette Goosen are thanked for filming the operation as part of the children's 'Team Wild' series for SABC 1. Athol Moulth thank you for promoting our project in your up-coming exhibition. Dave and Sue Tindall are thanked for all their logistical support. Andrea Webster is thanked for her assistance. We appreciate the support given by Brain Masters and Odette Schuldt from Tanda Tula Safari Lodge. Colin Rowles and Paul White from Klaserie and Timbavati Private Nature Reserves respectively provided valuable man-power. Last but not least we would like to thank all the guests that participated in the collaring operations who not only helped to make it a memorable experience but your financial contributions have gone towards the management of the Reserves.

### Quote

“Man on this planet has reached the point where really he needs all the friendship he can find, and in his loneliness he has need of all the elephants, all the dogs and all the birds....

It is time to show that we are capable of preserving this gigantic, clumsy, natural splendor which still lives in our midst.....that there is still room among us for such a freedom”

*The roots of heaven –Romain Gary*



*Eragrostis*  
Great grandmother of the Grass herd

## Relieve, Release and Rescue

We have known the Grass herd for a number of years and have always been struck by their level of habituation. All the individual females within this family unit have been given the genus names of Southern African grass species. Some individuals in the herd are more familiar to us than others. *Eragrostis* (Love grass) is one such individual. She is an old cow who no longer lactates and usually brings up the rear of the herd. With the passing of time we have

come to realise that *Eragrostis* is blind. Despite her handicap which slows her down considerably, her daughter *Themeda* (Red grass) is never far from her and is usually only an audible rumble away.

There are only a few breeding herds within the Private Nature Reserves which have similar levels of habituation as the Grass herd. These herds usually frequent the traversing areas of the lodges and are therefore habituated to people. Grasses are, however, particularly habituated probably because of the presence of *Eragrostis*. The old great-grandmother of the herd seems to have lost her fear of man. She habitually uses roads as walkways, presumably because they represent easier walking as opposed to stumbling through the bush and so she frequently encounters humans and appears to have realised that they mean her no harm. We have always wanted to collar Grasses, but out of respect for *Eragrostis* we have avoided buzzing over the herd with a helicopter. Little did we know that on the 21<sup>st</sup> July 2007 we would indeed be given the chance to collar and follow this unique family in the future.

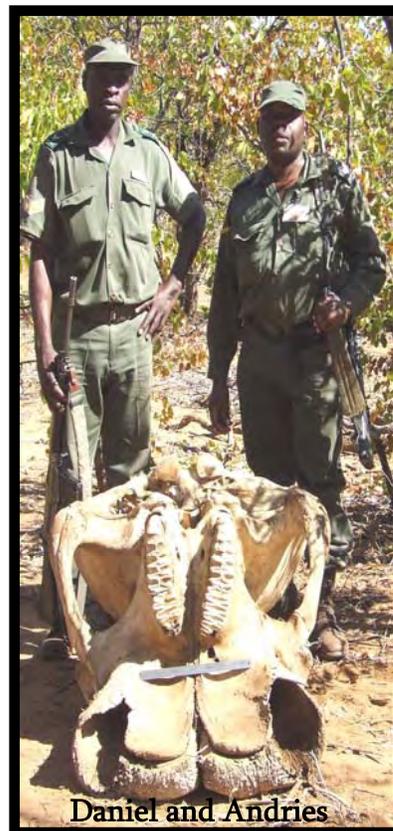
With youthful enthusiasm, Andrew De Luca, a new ranger at Tanda Tula, came running towards me. Gasping for breath, he and Richard Sachse told us that they had spotted a cow with a snare close



*Koeleria's* wound

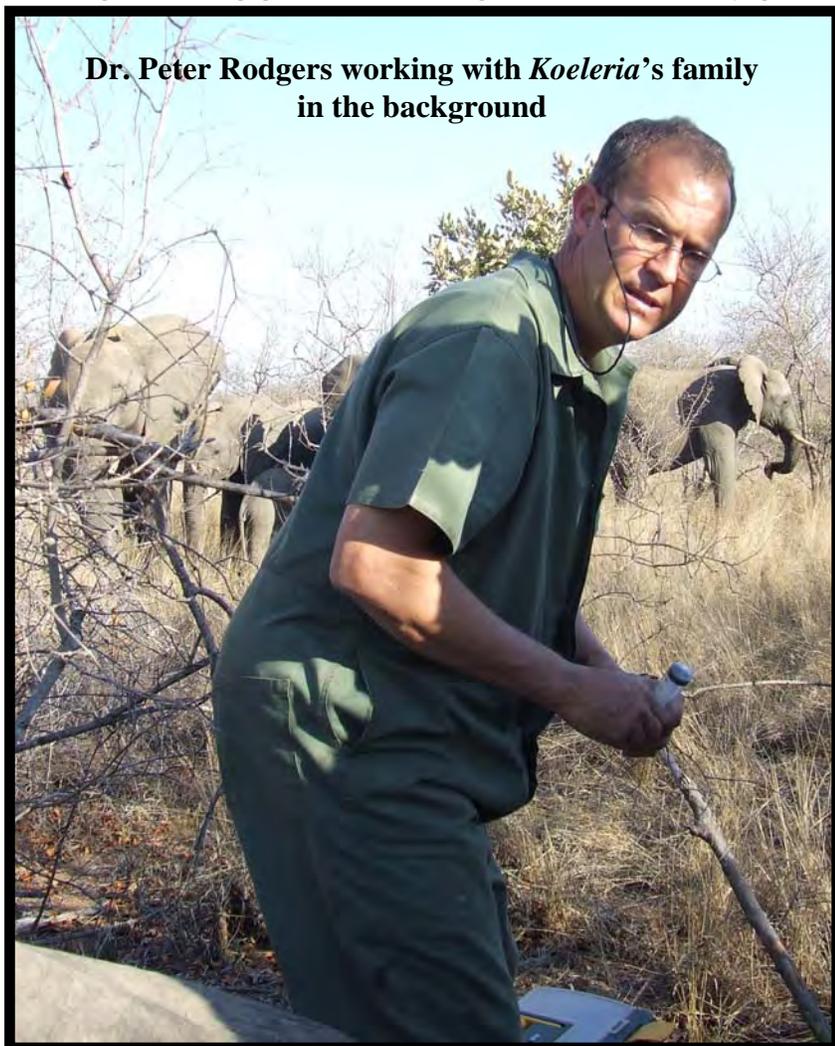
to Tanda Tula airstrip. We rushed to catch up to the family to see who they were and watched as *Koeleria* (June Grass) painfully made her way through the bush at a snail's pace owing to a snare that had become embedded above her swollen right hind foot. She and her closest relatives were separated from the rest of the herd. Even her nine month old baby had to wait impatiently with her other siblings for their mother to catch up. We immediately set a plan in motion to relieve her of her pain and discomfort and arranged for Dr. Peter Rodgers to dart her and take off the snare the following morning. It was an ideal opportunity to collar a member of the Grasses, but where to find a collar at such short notice?

Two months ago a large bull named Brazen had been found dead in the Kruger National Park close to Klaserie's border where Colin Rowles had spotted the carcass from the air. Brazen was collared in September 2005, and when he was last seen in the Umbabat he was in full musth so presumably he had died due to intra-specific conflict. Fortunately the collar had been retrieved and was in good working order and being kept at Phalaborwa. Steve rushed through to Phalaborwa to get the collar while Andrew, Andrea and I stayed close to *Koeleria* so that we would be assured of finding her at first light. We consulted with the warden of the Timbavati Private Nature Reserve, Jacques Brits, and agreed that because of the presence of *Eragrostis*, the level of habituation of the Grass herd and the fact that *Koeleria* was slightly separated from the rest of the herd, we should try our first darting operation without the aid of a helicopter. Throughout the night we kept track of the elephant's movements with only the moonlit night to guide us in the dark. Often we could hear only their breathing when the moon dipped behind the clouds and at other times we would get fleeting glances of their graceful white ivory glinting in



Daniel and Andries

Dr. Peter Rodgers working with *Koeleria*'s family in the background



the blue moonlight shining on the resting veld.

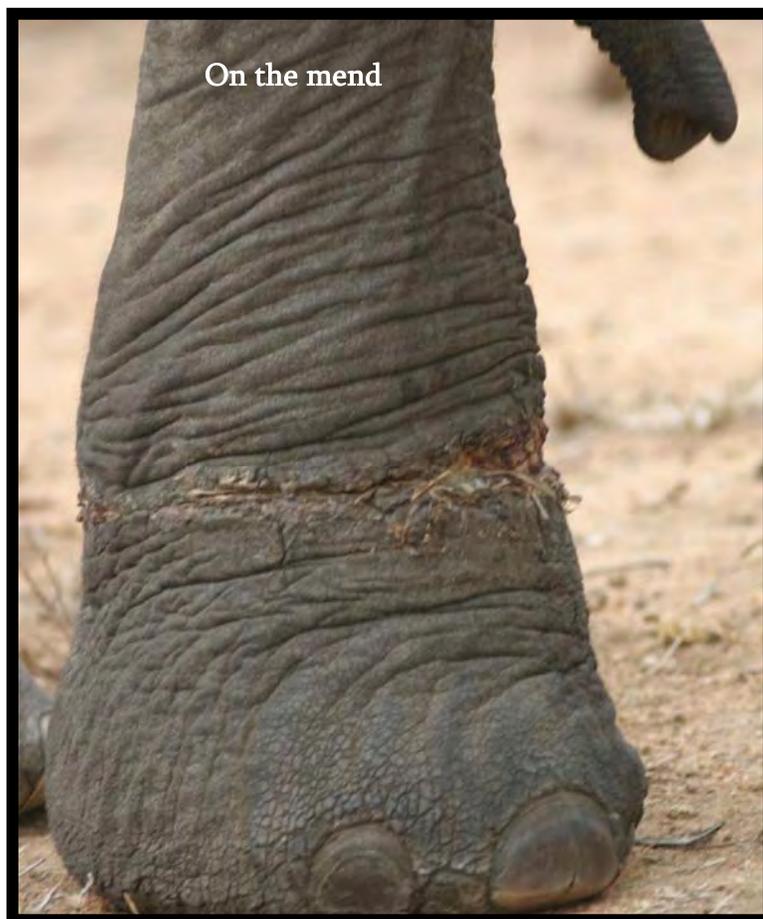
By first light, when Dr. Peter Rodgers and Olivier McMurray were preparing to make up the dart, we carefully went over the plan with Paul White to drive in one vehicle close to *Koeleria*, and to switch off the engine and wait until we were ignored by the elephants. Peter would then dart her, and as soon as she went down we would slowly have to maneuver the vehicle between her and her concerned relatives. Her closest relatives were a group of six elephants of mixed ages and sexes. This was the tricky part, because if her family members panicked enough to notify the rest of the herd (which was not more than 500m away), we could be in trouble. *Koeleria* only flinched

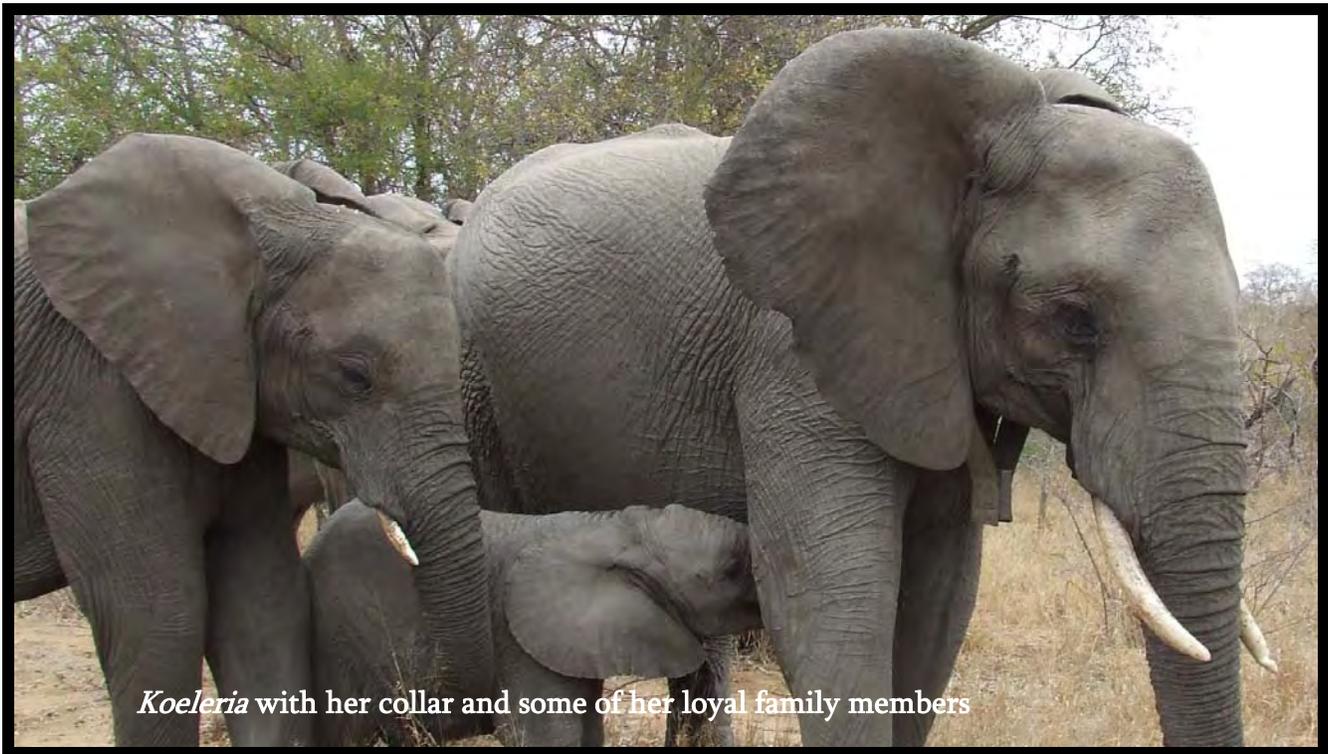
slightly when the dart hit her rump. Peter started slowly counting off the minutes. She kept grazing while moving along slowly. When she fell, her unsuspecting relatives began streaming from their temporal glands and spun around her, trying to prod her to get her up. Slowly we inched our way forward, never moving faster than an elephant can walk. We instructed Matthew Steyn, head ranger at Tanda Tula, to reverse between *Koeleria* and her family members. We remained calm and spoke in soothing whispers and slipped off the vehicle in slow movements. Steve and I immediately started fitting the collar while the rest of the small team cut the snare and assisted Peter with cleaning out the wound. *Koeleria's* family members stood a few meters from us rumbling with concern and dusting themselves anxiously. From time to time *Koeleria's* calf walked boldly towards us sniffing with an out stretched trunk. I imitated the reassuring contact rumbles that elephants make in an attempt to reassure the baby that we meant no harm. We worked as quickly as we could in order to revive the cow as soon as possible and not prolong the restless shuffling of her relatives. Within about 20 minutes the operation was completed and the necessary painkillers, anti-inflammatories and antibiotics were administered. We slipped back onto the vehicle after Peter gave the antidote and slowly moved about 30 metres away. Quickly *Koeleria's* family gathered around her, and she got up effortlessly. Once on her feet there was much sniffing and greeting amongst all who were huddled around her. *Koeleria* stood quietly smelling the collar around her neck before moving off peacefully with her loyal companions. As she moved off we thought that she moved with greater ease. All of us kept whispering even once the elephants were no longer visible, so touched were we by having been a few meters from a small herd of wild elephants that waited for us to complete our task. Peter turned to us and with a broad smile beamed:

'Never have I seen such trust. Thank you.'

We are not to thank. It is with humility that we need to thank *Koeleria's* little family for allowing us to do our work in peace under their ever watchful and loyal eyes..... thanks be to you.

We have subsequently sighted *Koeleria*, and her foot has healed satisfactorily. She now walks at a brisk pace and was actually leading the Grass Herd when we sighted them.





### **Acknowledgements**

We would like to thank the Timbavati Private Nature Reserve for making the funds available to pay for the veterinary bills. Thank you to the other members of the elephant vigilante team, Andrew and Andrea, for helping us to keep track of *Koeleria*. We appreciate Dr. Peter Rodger's prompt response and willingness to help at such short notice. We would like to thank the assistant warden of the Timbavati, Paul White and his team for their unfailing assistance. We would also like to thank Evans Mkansi, and his faithful field rangers Daniel Chavalala and Andries Mashava for retrieving Brazen's collar and for showing us where we could find Brazen's carcass to age him from the remains of his lower jaw. Tanda Tula is thanked for making their vehicle available during the operation. Last but not least we would like to thank our colleagues in East Africa for showing us how to collar elephants without a helicopter and for providing invaluable advice on how we should proceed.

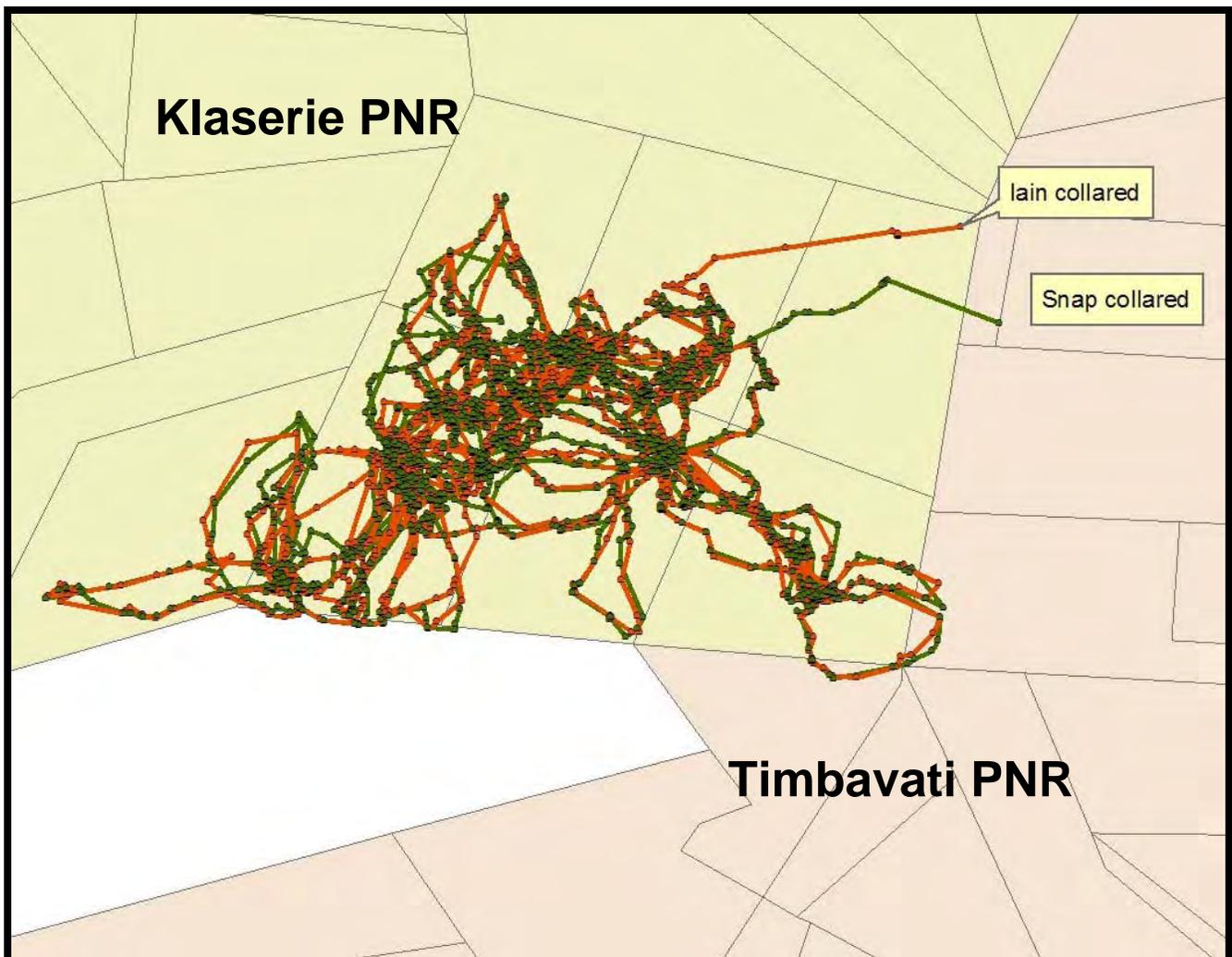
## *Where are all the latest collared elephants?*

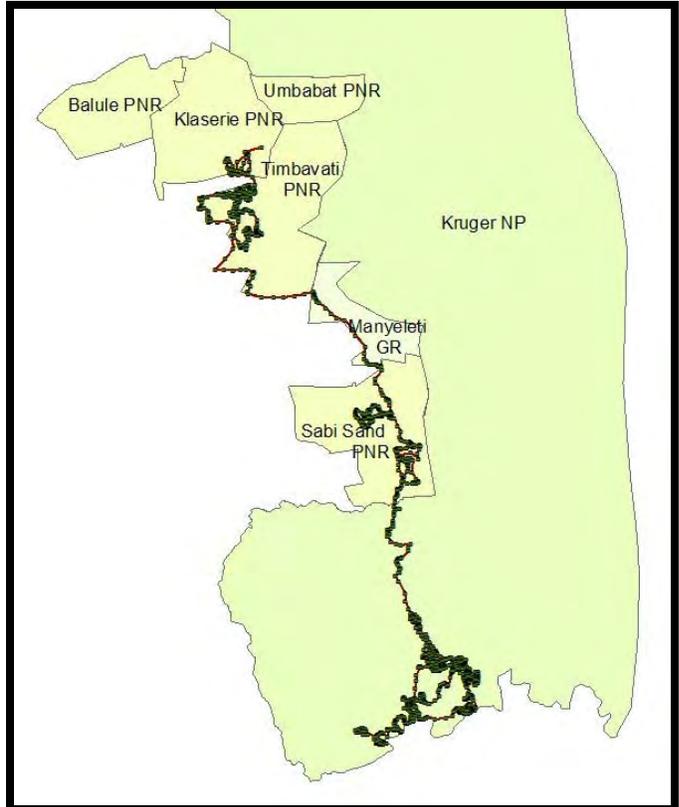
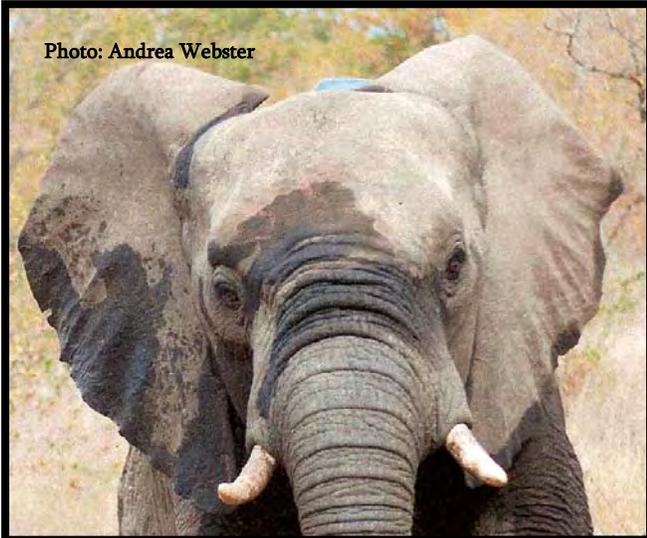


**Snap**

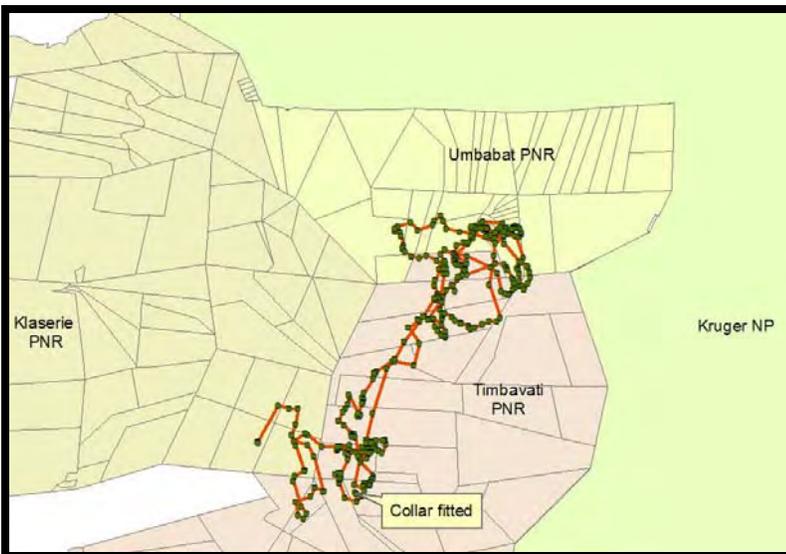


**Iain**





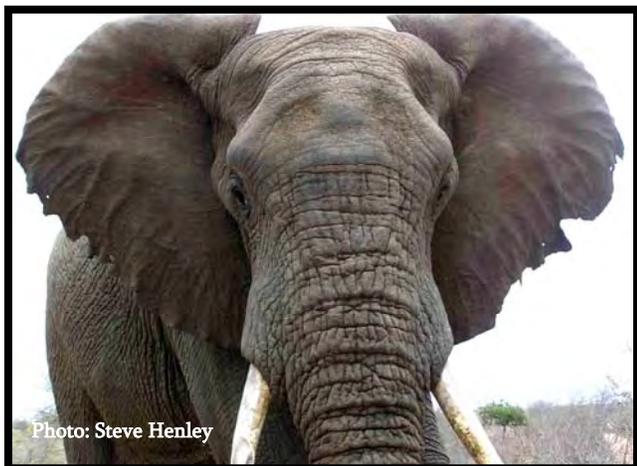
Namaste



*Koeleria* from the Grass herd

## WHO'S-WHO.....?

*This regular feature will serve as an introduction to individual elephants with which we have become familiar in the APNR. Here we feature a bull named Look-alike who has a very inquisitive nature....*



Look-alike has been seen on a regular basis since October 2003. In September 2004 he approached one of the Ingwelala share block owners Les Penfold, while he and his family were enjoying a picnic at Ingwelala's Timbavati Lookout on Argyle farm. Look-alike was so curious that he came closer and closer until Les and his family thought that it would be safer to take refuge behind the

small rock wall that demarcates the picnic area. Look-alike peered over the table at the strange creatures huddled behind the wall before causally continuing with his daily activities. As Look-alike is a young bull with a very placid yet inquisitive nature, you will be sure to get a good sighting of him. He has characteristic ears which also make him easily identifiable.



### FACT-FILE: All About Elephant Eyes

- The eyeball of an elephant is similar in size to those of humans and is small for such a large animal.
- Elephants and wild pigs are the only ungulates with round pupils.
- Round pupils are normally associated with forest or shade-adapted animals.
- Elephants have limited angles of vision with a superior ability to see forward rather than sideways or backward.
- Eyesight is considered poor in bright light but in dim light movement can be detected at up to 45m.
- Although elephants shed tears, no functional tear glands are present.
- Tears exude from the Harderian gland which is meant to keep the third eyelid or nictitating membrane moist.
- Elephants close their eyes when sleeping with most sleep taking place in the early morning and in the heat of the day.
- Adult elephants can lie down to sleep but frequently doze while standing.

## SPECIAL REQUESTS

*We will be unable to meet the objectives of this study without your input and support. We therefore have the following requests and appeals to make...*

### **ELEPHANT IDENTIFICATION KIT:**

If you are keen to assist in collecting elephant ear patterns or if you have taken any elephant photos and would like to make these available, we would be most appreciative. Please contact us at (015) 7930369 or email us at [michelephant@woldronline.co.za](mailto:michelephant@woldronline.co.za)

### **NEWSLETTER:**

If you would like to contribute to the newsletter in any way please contact us, especially if you have come to know specific elephants over the years and have some interesting stories to tell. Your stories will appear in the section entitled 'Your Thoughts'.

### **QUESTIONNAIRE:**

A questionnaire will be circulated to all landowners/share block holders within the Reserves. We would appreciate it if you could complete the questionnaire as thoroughly as possible. The questionnaire forms part of a follow-up questionnaire that was circulated in 2003.

### **ELEPHANT MORTALITIES:**

We are putting together a map of all natural mortalities of elephants within the region. If you have ANY historic information of elephant deaths that occurred on your property we would greatly appreciate it if you could provide us with the information.

### **RAINFALL DATA:**

We want to investigate patterns in rainfall variability within the APNR and are looking for reliable records from as many different locations as possible. In particular we are looking for daily rainfall data. Our thanks to all those who have supplied us with rainfall data. Please let us know if anybody else is able to make such data available.

### **BOOKS AND STATIONARY FOR THE GRASSROOTS PROGRAMME:**

If you have any reading material, stationary or duplicate field guides that you would like to donate towards our educational programme, we would be most grateful.

### **VEGETATION MONITORING AND TRAINING**

We have noticed that many landowners have started wire-netting trees. Please could you notify us if you have done so as data will need to be collected in these areas. As the numbers of trees that need to be monitored are growing, we would need to train and employ a local person to become involved in the vegetation work for the entire APNR. If you think that you would be prepared to sponsor such a person financially, please contact us.

### **DONATIONS AND CONTRIBUTIONS:**

We are very grateful to all the landowners and interested parties that have submitted photographs and made financial contributions towards the project. A comprehensive list of all contributions will be periodically updated on our website. As this costly project is dependent on donations any financial contributions can be made to the Transboundary Elephant Research Programme, account number 033356165, Standard Bank, Hoedspruit, Branch Code 052752. Our charity number is 055-871-NPO if you wish to make tax deductible donations.