



ELEPHANT RESEARCH

— A · P · N · R —

ELEPHANT NEWS

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This being the month of July and the first newsletter of the recently launched elephant research project. I will be providing you with background information on the current elephant project and include some regular features in each edition under the headings FACT- FILE, QUOTE, SPECIAL REQUESTS and WHO'S- WHO.

CURRENT RESEARCH

Background

The ideas and concepts that underlie this recently launched study entitled *Population Dynamics and Elephant movements within the Associated Private Nature Reserves (APNR) adjoining the Kruger National Park* started more than five years ago. Dr. Iain Douglas-Hamilton, director of Save the Elephants initiated the idea of Green Hunting. In 1998 the first Green Hunt was pioneered in the Timbavati Private Nature Reserve (TPNR). To date five elephants have been Green Hunted. Green Hunts not only enabled bulls to be fitted with

satellite collars to track their movements, but also contributed financially towards the management of the TPNR.

Prior to this, ear patterns of individual elephant bulls were being collected by Cathy Greyling in the Umbabat Private Nature Reserve and Alan McSmith in the TPNR. Collaboration between these initiatives forms an elephant identification database, enabling us to develop an understanding of the movements of elephants within the APNR. Whilst conducting the fieldwork for my PhD thesis I came into contact with landowners

concerned about the possible destruction of woodlands by elephants, as annual aerial surveys indicated that there had been an increase in elephant numbers in recent years.

It became apparent that monitoring programs would be needed to scientifically evaluate the situation and to collate all the information gathered to date.

This study therefore has the following **objectives**:

- 🐘 To determine how many elephant bulls use the APNR
- 🐘 To determine how many family units frequent the APNR
- 🐘 To identify the big tuskers that frequent the APNR.
- 🐘 To determine the movement of elephants within the APNR and adjacent areas

- 🐘 To monitor the changes in the density of elephants within the APNR
- 🐘 To establish to what extent different parts of the APNR and Kruger National Park are used by elephants
- 🐘 To determine whether food resources and/or social and safety benefits motivate elephant movements
- 🐘 To quantify the impact of elephant on certain tree species

Quote

Never utter these words:
 “I do not know this therefore it is false.”
 One must study to know,
 know to understand, understand to judge.
 -Apothegm of Narada-

Duration and supervision

The project will initially run for the next five years during which time we will be putting satellite collars on 30 elephants. All 18 bulls to be satellite collared as part of the research methodology, will be Green Hunted, thereby contributing financially towards the management of the APNR. Satellite collars will also be placed on 12 cows from independent family units.

The project will be supervised by Dr. Iain Douglas-Hamilton of Save the Elephants, Dr. Ian Whyte of the Kruger National Park and Prof. Johan du Toit of the Mammal Research Institute at the University of Pretoria.

What is GREEN HUNTING?

Green Hunting provides the sportsman with an alternative to the more familiar lethal hunts. During Green Hunts, the animal is shot with an anaesthetic dart instead of a fatal bullet. The hunter therefore still gets to experience the skill and risk of the hunt but with the difference that the large tusked bulls which are targeted, are not removed from the population. The Green Hunter pays \$25 000 for the opportunity

which contributes financially towards the management of the reserve. Whilst fitting a satellite collar, careful measurements and detailed photographs of the tusks are taken to enable the hunter to have fibre glass or bronze replicas made. The collars are programmed to provide information on the elephant's whereabouts three time a day for a minimum of two years. The information is accessed via

the internet at the Elephant Research base at Tanda Tula Safari Camp in the Timbavati. After the antidote is administered, under the supervision of a qualified veterinarian, the elephant recovers and moves off to continue spreading his genes throughout the population.

This type of hunting therefore not only brings in revenue for conservation, but provides accurate information on elephant movements, enabling

conservationists and wildlife managers to make decisions based on sound scientific data.

Large tusked bulls are of particular importance within elephant societies. Breeding females prefer to mate with older, more experienced bulls. Instead of removing these social and economical assets from the APNR, we are able to preserve and monitor them through Green Hunting.

WHO'S-WHO.....?

This regular feature will introduce us to individual elephants with which we have become familiar in the APNR. Here we focus on an elephant named Mac...



Photo Michelle Greyling on Tanda Tula

Mac was named after Tony McClellan from the UK, who donated a satellite collar for a Green Hunt that took place in the south of Timbavati on the 9th of May 2002. Tony has since made further donations towards satellite collars which are to be fitted on cows from family units within the reserve.

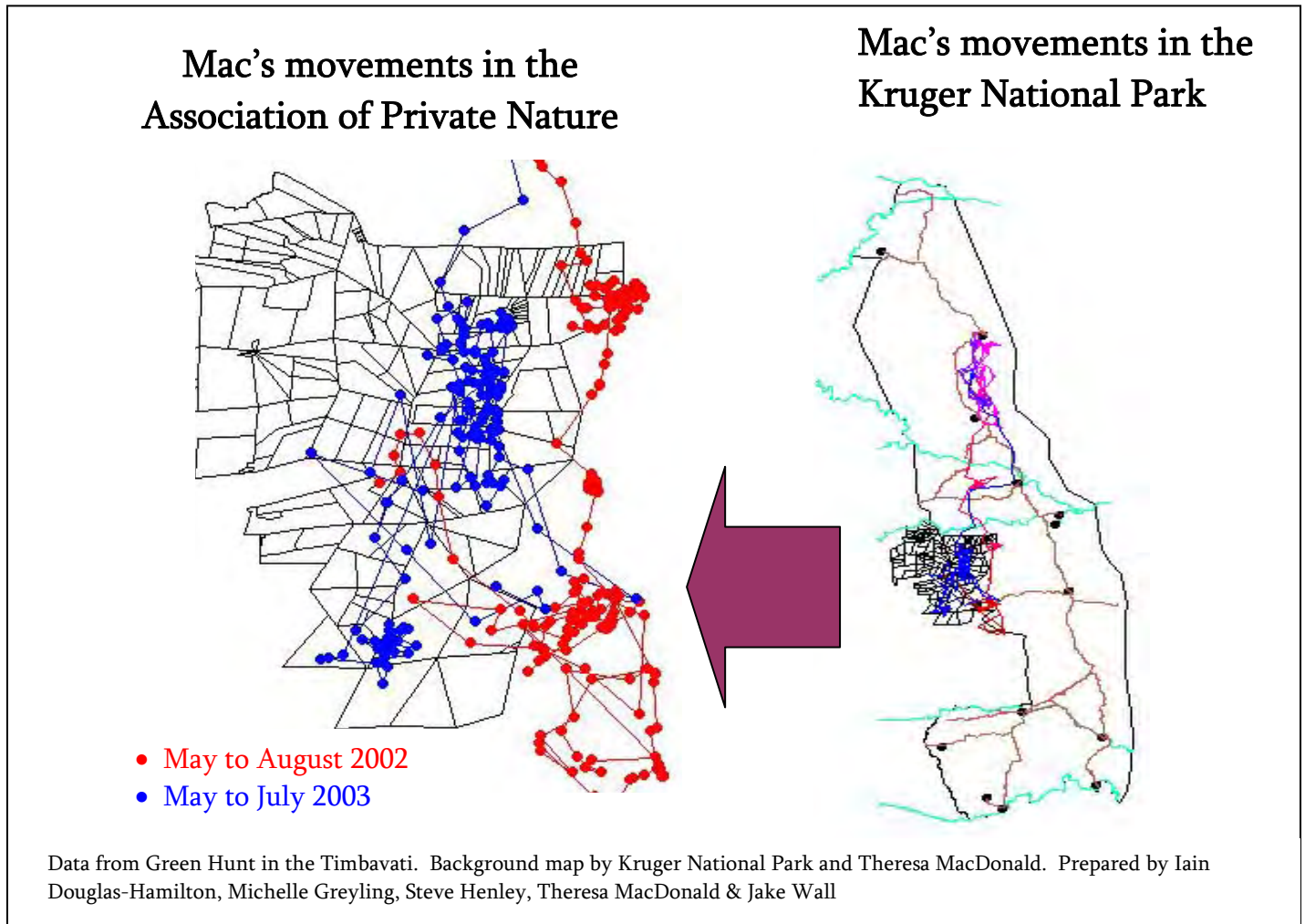
Mac is one of the few surviving representatives of a cohort of large tusked bulls which has almost been wiped out. His left tusk is 171 cm long and weighs 115lbs while his right tusk is 105cm in length and weighs 108lbs.

After being green hunted Mac stayed in and around the APNR until August 2002. One of the younger bulls accompanying Mac was lethally hunted within the Umbabat later in the year and thereafter Mac took off to Letaba within the Kruger National Park. He remained in and around Shingwidzi for a further eight months. On the 1st of May 2003, when we suspect that he started his annual musth cycle, he again started moving south towards the APNR. He entered the APNR near Rietvlei on the 19th of May and was sighted at Tanda Tula on the 23rd of May 2003 where he was interacting with an oestrous cow. He had thus covered a distance of over 150 km in just over 20 days. Mac is at present within the APNR and he is still in musth.

Mac has become an important ambassador for the APNR and has already drawn the attention of not only APNR landowners, but the international community as well. International tourists who had sighted him in the Kruger National Park have made inquiries about him. During June 2003 the BBC came to film him while he was on Lilydale. Photographs of him have appeared in local

newspapers and have recently also been published in National Geographic. Hopefully you will have the

privilege of meeting up with him personally in the near future!



To read more about the Green Hunting of Mac please visit the website <http://www.savetheelephants.com> and look under 'Field Diary' July 2002.

FACT-FILE

- **Musth** in elephant bulls is a period of heightened sexual activity.
- Bulls in **musth** have elevated levels of testosterone and are characteristically unpredictable.
- They also have a characteristic odour and continually dribble urine.
- They frequently rub their swollen temporal glands against objects and drape their trunks over their tusks to alleviate the pressure on their temporal glands.
- Only bulls over the age of 25 years start to experience **musth**.
- With age the duration of **musth** periods increase and these **musth** events become more regular, allowing us to predict when and how long an old bull will be in **musth**. Mac, for example, comes into **musth** in May each year and his musth cycle lasts 2-3 months.
- Cows preferably mate with older, dominant **musth** bulls.
- **Musth** bulls play an important role within elephant society.

SPECIAL REQUESTS

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

- 🐘 To assist me with information on elephant sightings whenever I contact you either by radio or telephonically.
- 🐘 Please complete the questionnaire that has been sent out with this newsletter and email or post it to me. Alternatively you could leave the completed questionnaire at the control gate in a sealed box that will be provided for this purpose. You are also welcome to deliver it personally at the Elephant Research office based at Tanda Tula in the Timbavati. Please contact me if you have any difficulties with the completion of specific questions or with the delivery of the completed document.
- 🐘 If you are keen to assist in the collection of elephant ear patterns or if you have taken any elephant photos and would like to make these available, I would be most appreciative. Please contact me so that we can make an arrangement.
- 🐘 If you would like to contribute to the newsletter in any way, please do not hesitate to contact me, especially if you have come to know specific elephants over the years and have some interesting stories to tell.
- 🐘 I would like to make an appeal to any landowners who could supply the contact details of hunters that may be interested in Green Hunting. This year we have four Green Hunts allocated to the Timbavati and one lethal hunt allocated to the Umbabat which could potentially become a Green Hunt. As tenders for Green Hunts were only put in at a late stage, no Green Hunts have been sold to date. Please remember that Green Hunts can be conducted at any time of the year.
- 🐘 This costly project is dependent on donations and sponsorships. Although Save The Elephants and David and Marlene McCay at Tanda Tula Safari Camp have supported this project both financially and logistically, we are still dependent on donations for the duration of the project. If you therefore know of any person or company that may be interested in supporting the project financially, please contact me. All contributors will be acknowledged in forthcoming popular and scientific publications and a plaque will also be erected at the Tanda Tula Elephant Research Office to acknowledge substantial donations. You are most welcome to visit the Elephant Research Office when you are in the area. Please contact me at 015-7930369 to arrange an appointment.

NEW

OUR NEXT NEWSLETTER.....

*In the next issue of **Elephant News** I will focus on some of the relevant findings of previous elephant research conducted within the APNR in addition to the regular features. We will also look at some interesting encounters with elephants.*