Michelle Greyling

Mac broadens horizons

TIMBAVATI - A new study on elephants in the Association of Private Nature Reserves (APNR) has revealed that a bull elephant can have a home range of over 4500 km^2. As part of research conducted for Save the Elephants, a large elephant bull was collared in May 2002 with a special satellite collar that is designed to send out a location signal three times a day. By monitoring the elephant's movements over a period of time, how far he walks in an average day and his total home range can be determined.

The elephant, known as Mac, is part of a study conducted by Michelle Greyling. Her multi-faceted study will consider exactly how many elephants move around in the APNR and into the neighbouring Kruger National Park.

By looking at both bulls and family herds, the study may be able to show what makes elephants move about – whether it is access to food, safety concerns or just social interaction.

After handing in her doctoral thesis on how elephants of different ages and sexes feed in the APNR, Michelle Greyling returned to the Lowveld to continue studying elephants.

Ms Greyling says that she has had a love of elephants from the time she was small, stimulated by the time spent with her mother at their holiday home in the APNR. One of her previous research subjects was elephant contraception, where she worked on finding out which hormones act on elephant's reproductive systems.

In order to conduct the current study, Ms Greyling needs to be able to identify individual elephants. Beginning in June this year, she has travelled throughout the APNR, finding elephants and photographing them so that she can produce detailed diagrams of their ears. Tears, nicks, holes and veins in the ears are used to tell one individual from another, as well as any other identifying marks like broken tusks.

Already around 600 ear IDs have been collected, including some collected in previous years. New individuals are still being regularly identified, showing that there are many unidentified elephants still to be photographed.

A total of 30 elephants are scheduled to be fitted with radio collars over the next five years, with 18 bulls and 12 cows from different family units being chosen. Collars will be fitted during a Green Hunt, in which the elephant is darted. A Green Hunter must still employ hunting skills in tracking the elephant, and he can be photographed with the fallen animal.

However, once the anaesthetic is reversed, the elephant is free to resume its normal life. This helps maintain the social structure of an elephant population.

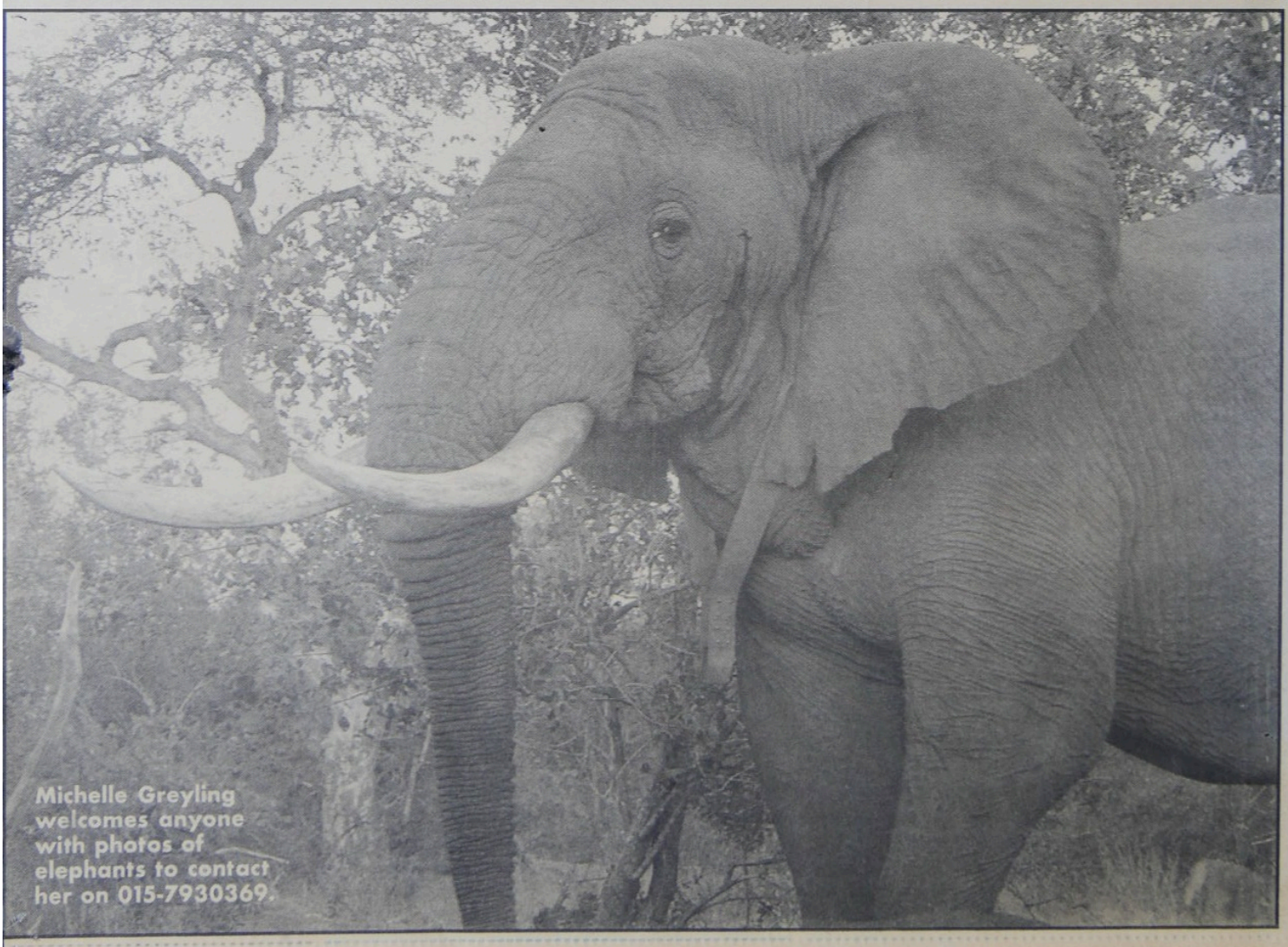
Ms Greyling is delighted to be working in the Lowveld again. Her doctoral research revealed intimate details of the elephants' diet in the APNR. In summer, an elephant's diet is about 80 per cent grass, while in winter they feed mostly on shrubs and trees.

Interestingly, as elephants are renowned for damaging large trees, 40% of their winter diet seems to come from the raisin bush (*Grewia spp*), and then they select other tree species. Ms Greyling also observed that males and females ate different parts of the trees, with males eating more roots while cows ate the leaves and small twigs.

Ms Greyling has also invited landowners in the APNR to join in the investigation. People spotting elephants can fill out identikits, photograph and make other observations of the elephants, which Ms Greyling can use to expand her database. Participation is not limited to those with homes in the APNR, as Mac has travelled extensively in the Kruger National Park between Letaba and Shingwedzi.

The research is sponsored by Save the Elephants and Tanda Tula, where Ms Greyling is based. However, any donations would be welcome, as Ms Greyling hopes to extend the study to a total of 10 years. Green Hunts are still available for this year's collaring exercise.

Below: Mac. Photos: Michelle Greyling



Michelle Greyling welcomes anyone with photos of elephants to contact her on 015-7930369.