

Message from the Chairperson

This newsletter covers two months because the Absons will be overseas for most of July (experiencing the "Summer" if it exists, in Europe!). June has proved to be an eventful month with the Gauteng Conservancy awards followed by the arrival of the giraffe. This newsletter focuses primarily on these two events.

Jane

Gauteng Annual Conservancy awards

For the first time, this year the Bronberg Conservancy competed for the Gauteng Conservancy Association annual awards. The awards are adjudicated by the Endangered Wildlife Trust and this year there was strong competition. The awards ceremony was held on 6th June.

We were awarded 3rd place in the Biodiversity awards. The judges' comments were: *This conservancy has shown commitment to biodiversity conservation by updating its Environmental Management Plan and paying particular attention to the carrying capacity of the land, even removing excess animals where necessary. Working together as a community with regards to fire management and veld condition monitoring are important aspects for biodiversity conservation. A number of vulnerable ecosystems are found in this conservancy with faunal, avifaunal and flora species well documented and these lists should continue to be updated.*

Awards were made in three categories as shown below. It is interesting to note that our neighbours in Klipkop Conservancy made a very strong showing!

WETLANDS

- Bronze - Homestead Dam
- Sliver - Klipkop
- Gold - Elandsvlei

BIODIVERSITY

- Bronze - Bronberg
- Silver - Cullinan
- Gold - Klipkop

MEERKAT (this is the trophy for overall best performance)

- Bronze - GECKO
- Silver - Smuts Farm
- Gold - Cullinan

We did very well to be placed at the first attempt, but we need to work harder if we are to win the Meerkat award!! One important component that we have not given sufficient attention to so far, is community outreach.



Jane receives the award from Ivan Parkes, chairman of the Gauteng Conservancy Association, on behalf of the members

SAPPI Tree Guide

We have been contacted by Jaco Adendorff, who is taking photos for the revised SAPPI Treespotting Highveld Guide. He found our website and says: *"there are a number of fairly rare trees that occur in the conservancy that I would love to photograph. The project runs into summer, so there would be plenty of time, but I would like to see certain species in flower, which means visiting perhaps a few times at intervals. If you are prepared to grant me access, it would be a tremendous help, and in return I will allow you to use those of my photographs that are not published for use on your website".* We look forward to assisting Jaco with this task and hope the members will not mind if he walks in the Conservancy. We will try to walk with him where possible to show him where the trees of interest are located.

Security

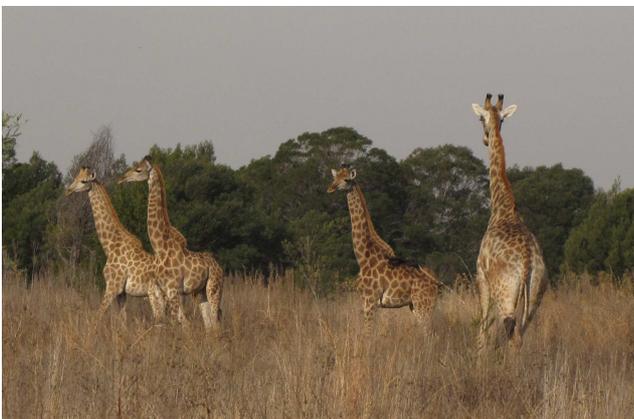
There have been break-ins in and around the Conservancy in recent weeks. John is back on patrol again, but please be on the alert for any instances of fence cutting.

Giraffe

Four giraffe arrived in the conservancy on 1st July. Their arrival was eagerly awaited by many.



The giraffe peer out of the truck prior to release



Glad to be free!

It was therefore extremely sad news when we learned that one of the giraffes had broken legs within the first 24 hours after arrival. We originally thought that it was a young female that had suffered this fate but apparently it was a young male. The sex of the remaining three animals still needs to be confirmed. We can only hope that the remaining animals will settle down and prosper.

Please, to those of you who promised to buy lucerne for the giraffes, remember that this has to be an ongoing commitment, not something that can be done once and forgotten about!

Nature News

With the arrival of the giraffe, it seems appropriate to focus this Nature News on giraffes in general.

Adult giraffes (*Giraffa camelopardalis*) weigh in excess of 1000 kg, frequently range over several hundred square km and are capable of long distance movements of 50–300 km. Given a larger area, giraffes will live in loosely constructed social groups with large home range sizes, ranging from 5 km² to 992 km². Their habitat includes scrub and savannah from the Sahel to South Africa.

There is considerable geographic variation amongst giraffes across the range in sub-Saharan Africa. By analyzing DNA sequences it has been shown that there are at least six genealogically distinct lineages of giraffe in Africa, with little evidence of interbreeding between them. Some of these lineages may be maintained by differences in reproductive timing or mating preferences based on coat patterns, suggesting that populations have a long history of reproductive isolation.

Giraffes in general show some amazing anatomical adaptations. For instance, you might have thought that maintaining a decent blood supply to your brain when your head is almost 2m above your heart could cause a serious headache, but giraffes have evidently overcome any difficulties they might encounter. However, the mechanism that maintains sufficient blood flow to the animal's head has remained a topic of hot debate for several decades. It has been suggested that hydrostatic pressure generated by the column of blood in the carotid artery could account for the astounding blood pressures need to keep the giraffe's brain supplied with blood, so that they don't pass out when they lift up their heads after drinking.

Other modifications to the giraffe's structure have evolved, particularly to the circulatory system. A giraffe's heart, which can weigh up to 10 kg and measure about 60 cm in length, has to generate around double the normal blood pressure for an average large mammal

in order to maintain blood flow to the brain against gravity. A complex pressure-regulation system prevents excess blood flow to the brain when the giraffe lowers its head to drink. Conversely, the blood vessels in the lower legs are under great pressure because of the weight of fluid pressing down on them. In other animals such pressure would force the blood out through the capillary walls; giraffes, however, have a very tight sheath of thick skin over their lower limbs, that protects them from the effects of the high blood pressure.



Giraffe possess seven vertebrae in the neck (the same as other mammals) but they are elongated. The vertebrae are separated by highly flexible joints. The base of the neck has spines which project upward and form a hump over the shoulders. They have anchor muscles that hold the neck upright. Giraffes also have slightly elongated forelegs, about 10% longer than their hind legs.

The pace of the giraffe is an amble, though when pursued they can run extremely fast. They can not sustain a lengthy chase. The leg length compels an unusual gait with the left legs moving together followed by right (similar to pacing) at low speed, and the back legs crossing outside the front at high speed.

A giraffe's lifespan is 20-25 years in the wild (may be up to 30 years in captivity). Males are larger and darker than females, have

thicker horns and have a lump on the forehead. The horn tips are bald in males and old females while hairy in younger females.

Giraffes communicate infrasonically (through low-pitched sounds), and by touch. They also sometimes vocalize to one another by grunts or whistle-like cries. When alarmed, a giraffe grunts or snorts to warn neighbouring giraffes of the danger. Mother giraffes can whistle to their young calves. Also, cows search for their lost young by making bellowing calls. The calves return their mother's calls by bleating or mewing. While courting an oestrous cow, male giraffes may cough raucously.

Giraffes do not have a particular mating season, and the females come into oestrus every two weeks during the year. The gestation period is almost 15 months, one of the longest in the animal world. The females give birth standing up, so that a calf begins life with a 2 metre drop to the ground! The young reach sexual maturity in four to six years.

An adult giraffe eats up to 34kg of foliage a day. In the book, "Behavior Guide to African Mammals", Richard Estes explains how the giraffe is able to separate the leaves from the thorns on a thorn tree:

"Horny papillae (small bumps) protect the lips and tongue against thorns. The narrow muzzle, extremely flexible upper lip, and long, prehensile tongue enable the giraffe to strip leaves off branches or select individual leaflets from between sharp thorns; thus it can both feed selectively and consume the quantity of foliage needed to sustain its bulk."

Giraffes are difficult and dangerous prey, and when attacked the giraffe defends itself by kicking with great force. A single well-placed kick from an adult giraffe can shatter a lion's skull or break its spine. Lions are the only predators which pose a serious threat to an adult giraffe.

While we do not have lions in our Conservancy, we have many other hazards, and we all need to do our best to make sure that the remaining three giraffes thrive and prosper!