March 2025 Vol 5 Issue 2



Olifants North Newsletter

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Red-billed Oxpecker / Renostervoel / *Buphagus erythrorhynhcus*



No experience in the African bush is quite complete without the sound of Red-billed Oxpeckers flying overhead in search of their next mammalian host where they will be rewarded with a bounty of ticks upon which to feast.
Guides often make use of their tell-tale calls to locate animals in the veld. These birds play a major role in the ecosystem by controlling the tick population.

Oxpeckers display fascinating breeding behaviour. They are gregarious and socialise in large flocks, but only 1 pair in the flock will breed in a season. Both members of this monogamous pair will incubate the eggs (2-4 eggs/brood - often with up to 3 broods in a season), while the remainder of the flock contribute towards chick care/feeding (co-operative breeding).



As these birds lack bills capable of excavation, nest sites are usually in the form of natural cavities in trees, or old nest sites of barbets or woodpeckers. To make the site comfortable and warm, the breeding pair will line the cavity with plucked animal hair from host species, adding dried grass as well as dung if needed. The birds are territorial during breeding season and will actively defend their nest site.

Antelope (kudu, impala), larger mammals (giraffe, zebra, buffalo, rhino) are hosts to the oxpecker, with a symbiotic relationship playing out that seems to vary between mutualism (both species benefit), commensalism (one benefits without harming or benefiting the other one) and parasitism (one benefits at the expense of the other).
It is estimated that animals that can tolerate the attention of oxpeckers may be able to reduce their grooming activities by more than 30%. Although the diet is mainly made up of ticks (an adult can devour about 300 ticks in a day), it is also made up of other parasites like blood-sucking flies, fleas and lice, with a single bird being able to consume over 1000 fly larvae in a day!
They do hold a significant niche in the ecosystem as they feed on ecto-parasitic food without competition, thereby controlling tick populations.

Additionally, birds will also work at open wounds on the hide of the host species which can delay recovery, thereby attracting more parasites to the area. This behaviour demonstrates their potential as parasites.

Elephants do not play hosts to oxpeckers as they do not support many eco-parasites (only a few mites and occasional flies - usually horse flies which are too big for oxpeckers) and possibly because they do not have sebaceous glands. Sebum is known to attract ticks in particular. They also avoid carnivores and primates for obvious reasons.

A fling of oxpeckers

BirdLife SOUTH AFRICA
Giving Conservation Wings

An increase in the range of Red-billed Oxpeckers occurring in South Africa is a conservation success story. For a while, the population and range of this species was declining, particularly in the Eastern Cape, where the species had become locally extinct.
The following factors contributed to the overwhelming success of this project:
1) reintroduction of the species from KNP into areas where they previously occurred;
2) educating/encouraging livestock/game farmers to use oxpecker-friendly dipping products to control for ticks;
3) growing areas under protection through the proclamation of game reserves.





For the serious ornithologists amongst us, oxpeckers are African passerines (birds with feet adapted for perching). Their closest relatives are starlings. There are 2 species of oxpecker; the Red-billed and the Yellow-billed, with the following differences used to distinguish between the two.

Their action of clinging to and clambering over animals would imply that they have zygodactyl feet like woodpeckers and mousebirds who behave similarly in their chosen environments, but this is not the case. Oxpeckers have conventional toe configuration (3 toes forward, 1 toe back - anisodactyl). Their tails are long and graduated with stiffened tail feathers (retrices) which provide rudder-like support as they move over the mammal host.

RED-BILLED OXPECKER	YELLOW-BILLED OXPECKER
Red beak, distinctive yellow wattle/ring around bright red eye	Yellow beak with red tip, lacks yellow eye wattle/ring
Slimmer, flatter beak performing scissor-like action to remove ticks, also to peck at wounds/scabs of host	Stout beak, plucking parasites off host
Feeds on smaller ticks on animals with shorter fur	Feeds on larger ticks on animals with longer, denser fur

BirdLife SOUTH AFRICA

B*eat About the Bush: Birds*. Carnaby, T. (2008), Jacana Media, Johannesburg.



What is bokashi? Bokashi means "fermented organic matter" in Japanese. This is a composting method making use of fermentation to recycle food waste and turn it into compost.



What is used to activate this method of composting?
Bokashi bran, a wheat bran inoculated with beneficial microbes. It is non-toxic, all natural and 100% biodegradable. When the bran is added to food waste, the microbes activate and start the fermentation process. These microbes stop food waste from smelling and rotting.
When the bokashi method is applied, organic waste is fermented anaerobically in a sealed container at a low pH so that greenhouse gas production is significantly reduced. The microbes suppress putrefaction and pathogenic microbes. Methane-producing microbes cannot survive at a low pH, so no methane gas is produced.
NB: The contents of the sealed bin are preserved and will only break down completely once the contents have been processed outside the bin in a compost heap.







How is this working on Olifants North? The first round of compost has been successfully produced from the bokashi system which has been in action amongst the staff on the reserve. Once the full bins have stood, sealed, for 2 weeks, to allow for fermentation, they have been emptied into the composting facility with garden waste. After 3 months of working this mix, healthy useful compost has been produced which has been used for planting trees on the landscape.

Bokashi juice, that which can be tapped out of the bin during the process, can be used as a drain cleaner and as a liquid fertiliser.

What can and cannot be added to the bokashi bin?

All cooked and uncooked food waste, including:

- bread and pastries
- dairy, cheese and eggs
- fruit and veggies
- meat, fish and bones
- rice, pasta and beans
- tea and coffee grounds
- uneaten food from plates

- cardboard and paper
- cutlery!
- food tins and drink cans
- glass
- packaging of any sort
- plastic bottles, containers or bags

ECO-CONSCIOUSNESS

Being a custodian of natural spaces also requires of us to consider what goes into the ground, water system and our septic tanks. Equally, we need to consider our carbon footprint regarding the origin of the products we purchase.

Nowadays there is a bounty of eco-friendly cleaning products on the market that enables one to be a conscious consumer.
Olifants North is working at implementing both mindsets on the landscape; we have started by making use of environmentally friendly laundry powder and eco-bleach, supplied by Whispers in the Wind, a local business, which also enables us to consciously attend to our carbon footprint.
Environmentally friendly cleaning products are also being introduced into the housekeeping functions performed on the reserve.
Products not available through this business can be sourced through other local companies which are starting to employ a more 'green' mindset.





We have also started keeping of these products in the shop on the reserve and welcome members and guests to come and peruse what is available.

The concept needs to reach beyond consideration into implementation for real differences to be made.

WHAT HAS KEPT US BUSY DURING 2024

WATER

Our water supply/reticulation seems to occupy the largest amount of our average workday. Obviously, this is one of the most important services we need to provide, but it has been tough. With an ageing infrastructure, extreme weather and elephants, keeping water in the pipes demands the bulk of our operational budget.


Image 1

We are trying to take the lessons learnt in 2024 and make dramatic improvements to this area in 2025, but more of that in the next newsletter.

As for the past year, we managed to complete the following:

1. Ndlovu Dam borehole – in August 2024 we found the solar borehole pump at Ndlovu Dam had burnt out. Our investigation led us to discover that the borehole had dried up.


Image 2

This was the result of a dropping water table (a subject for a separate discussion). We brought the auger guys in and sank the hole a further 30m, into a good vein of water. We then replaced the pump (Image 1) and re-built the housing around the borehole, this time cladding the structure with stone to camouflage it (image 2). To date the borehole is working better than ever, but our future planning is to provide some relief to this borehole, using another water source to maintain the water levels.

2. Water meters – we have put water meters on most of our boreholes now to allow us a better understanding of the how we use our water and how much we need to supply. We cannot plan our system upgrades without this information.

3. Pipeline replacements – we have managed to replace a few of the worst sections of our pipelines, namely the clubhouse to 4 tanks line (image 3) and 2 sections of the river to Pebble Dam line (along the Sedumoni).


Image 3

4. Pumps – Elephant vandalism required us to replace the pump at borehole 1 and due to power surges, the pump at borehole 3 was also replaced. To manage these surges, we have upgraded most of the pump controllers to soften these blows. We have also started building up a stock of spares to avoid delays with future repairs.

VEHICLES


Image 4

1. TLC APU - To accommodate the new security manager we added a Landcruiser to the fleet (Image 4). To manage this in the budget, we opted to purchase a second-hand game viewer that we have upgraded, purpose-fitting it over time.

2. The entire fleet for ONGR - Landcruisers, tractors and TLB - has been serviced and now all fall into a regular service schedule. There is still a lot of work to be done on vehicles in our next budget (to bring them up to standard), but we anticipate this should bring down the overall maintenance costs of vehicles in the future.

ELLECTRICITY / SOLAR


Image 5

1. We experienced some real challenges in 2024 with our power supply. We are dealing with similar issues to our water challenges, namely ageing infrastructure. The Eskom line has poles that are starting to fall down, mostly due to termite damage, when we experience a serious storm, like we did in November. All it takes is 1 pole to go down, the lines to touch and the main transformer blows. This left us without power for 10 days. I believe everyone is familiar with the difficulty we experienced during that time. To have this same transformer blow again, only 2 weeks later, really supports the direction we are heading with our solar.

2. After much research and deliberation, we have embarked on our solar project. The first phase supplying around 75KW of power during the day, sufficient to run the office, workshop, laundry, staff village, camp house and A units during the day. The system has managed this successfully since we went online on the 18th of November 2024, following the completion of our inverter room (Image 5). We are now looking to expand this system to include the B units. There are many challenges to this, the least of which is to produce supply without displacement to the veld. Fortunately, we are nearing completion of the planning of the next phase and intend to roll this out to members in due course.

INFRASTRUCTURE

1. We completed the building of a 2-bedroomed house for our front of house manager (image 6) as well as a single bedroomed house and kennels for our security manager (images 7 & 8). These were singularly our largest capex projects for the year. This work included the general improvement of the gate house complex, including gardens. The idea has been to get this structure to blend as much as possible into the bush.


Image 6


Image 7


Image 8

2. Every year we will continue to maintain and improve the staff village complex. This year had a new double carport added, roof repairs done, Wi-Fi upgrades made and a new septic tank/French drain system built.

3. As part of our fire mitigation plans, we expanded the fire break areas around the houses and we plan to expand those areas further this year. We also endured the painful process of attending to all the fire regulations at each unit to ensure we comply with the minimum standards for insurance.

4. In order to protect some of our key structures we have had to improve the perimeter fencing. In the last year we have upgraded all 6 of our electric fence areas. This has included replacing energisers, as well as a few complete rebuilds. The gate house had no surrounding fence, the camp house needed a complete rebuild, while Ranger's hideaway, the staff village, camp and camp house just needed some servicing.

5. We rebuilt the structure at Sandbank Hide after it had been damaged during the November storm. We have also serviced all the furniture at the various hides. The planning going forward is for us to build the hide furniture with brick and mortar, this will eliminate future work requirements and allow us to keep the hides cleaner.

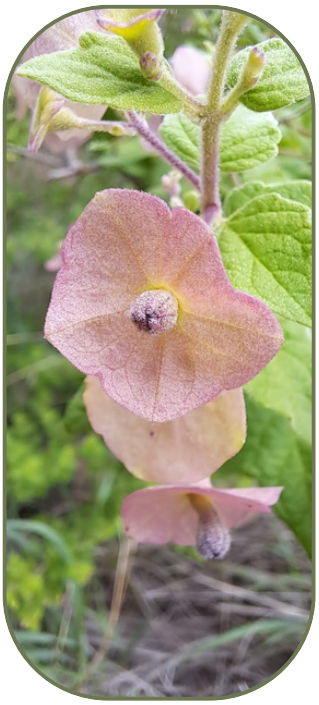
WILD PARASOL TREE/SAMBREELBLOM

Karomia speciosa forma speciosa



If you were to drive Rocky Horror any time from November to April, shortly after crossing the Sedumoni River en route to Mica Hill, your attention may be caught by a splendid display of soft pinks and purples next to the road.

The shrub/small tree carrying this profusion of beautiful blooms is the Wild Parasol Tree or Southern Chinese Hats. Another group of them can also be seen on the ridge above the concrete section of Ebony Road as one passes B4.
Both locations are excellent examples of their preferred habitat; bush/wooden areas on dry, hot rocky slopes and riverine thickets.



The pale pink base of the flower is the calyx and this has a paper-like texture. It often remains on the tree for long periods after the main, dark purple part of the flower has fallen off. In this way, the pink colouring continues to decorate the plant long after flowering season is over.
It is this persistent calyx which carries the fruit.

The flowers of the Wild Parasol Tree are nectar-rich and attract butterflies and carpenter bees, all of which pollinate the plants. Be on the look-out for nectar-feeding birds which are also known to frequent these plants.

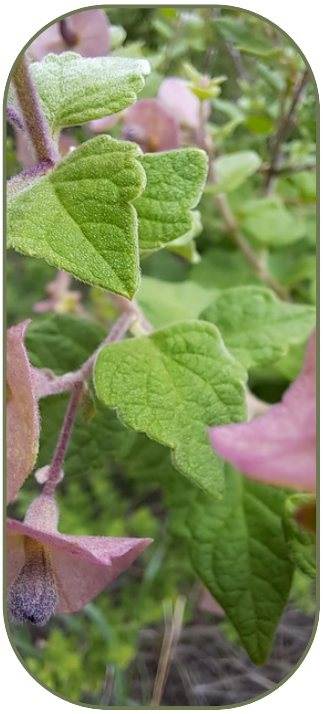
Although there are no known uses for this shrub/tree other than ornamental, it does belong to the Sage/Mint family (Lamiaceae), which is well-known for plants with aromatic properties.



The plant can be propagated from seed or from cuttings, with a 30% seed germination success rate.
In an environment which can seem harsh and unforgiving, the presence of these showy, soft trees is quite remarkable.



https://pza.sanbi.org/karomia-speciosa
Photos: author's own



VULTURE TALK BY ANDRE BOTHA, VULTURES FOR AFRICA PROJECT MANAGER - FEEDBACK BY NADIA GROBBELAAR, B38

The vulture population in Africa has seen a dramatic decline over the last 30 years, primarily due to human-related threats which include habitat loss, poisoning and poaching. In the case of the White-headed Vulture, their numbers have dwindled by 97% and we only occasionally observe them at Olifants North. The once abundant White-backed Vultures have also shown an alarming 89% decline.



Vultures are often poisoned by farmers or poachers when they scavenge carcasses laced with toxins intended for predators, or to target wildlife for illegal trade in their parts.
Today, 7 out of 11 African vulture species are close to becoming extinct. Their decline in numbers threatens not only the vultures themselves but also the broader ecological balance.



These scavengers are essential for maintaining a healthy and balanced ecosystem by cleaning up carcasses and preventing the spread of disease. The numbers quoted here were cited at a recent talk by vulture conservationist and expert, Mr. Andre Botha, who has dedicated his life to the conservation of these vulnerable raptors.

We would like to express our gratitude to Andre for taking the time out of his busy travelling schedule to come to our clubhouse at Olifants North and present a fascinating, yet sobering, talk about these special birds.

Endangered Wildlife Trust (EWT) performs annual assessments of vulture nest sites in the APNR (Associated Private Nature Reserves).
In particular, they count the number of nest sites, their location, whether the nest is active or not, if there is a chick and to determine breeding success rate.

A wake of vultures

In the last couple of years, they have noted a decline in the number of nest sites on both Olifants North and Olifants River, particularly amongst the critically endangered White-backed Vultures, due to a reduction in the number of Knobthorn trees (*Senegalia nigrescens*), their favoured nesting tree, on the landscape.

The other vulture species with sites on the reserve is the critically endangered Hooded Vulture. They prefer sites along dry riverbeds and adjacent to rivers, selecting dense-foliaged trees, especially the Jackalberry (*Diospyros mespiliformis*).

ENDANGERED WILDLIFE TRUST
www.ewt.org.za

One of the programmes BOT provides ongoing support for is the Maseke Drop-In Centre, a safe haven for primary and high school children from the local communities outside of Phalaborwa.



After school, over 200 children head for the centre for a hot meal, after- care with support for them to do their homework, as well as a safe space in which to play and be children.



The latest project contribution came in the form of a donated jungle gym, sourced from Koru Camp, a non-profit organisation outside of Balule. This organisation provides nature experiences and conversation education to underprivileged individuals living close to the reserve who have had limited to no exposure to nature.



Jejane Game Reserve in Balule gave generously of their time, expertise and transport to collect and deliver the deconstructed apparatus to Maseke Drop-In Centre.

A dynamic team of 5 staff, led by Jejane's reserve manager, George Coetzee, together with their Administrative Manager, Justine Bradfield, took the greater part of the day on the 6th February 2025 to transform the space into a children's playground paradise. Abraham, Reckson and Success worked relentlessly to make the magic happen.



At times it felt like an elaborate game of Lego, but with George's construction knowledge as well as photographic support of the original set-up, the system came together.

The children's excitement was palpable, and the ultimate reward was watching a group of them christen the jungle gym with a maiden climb and slide.

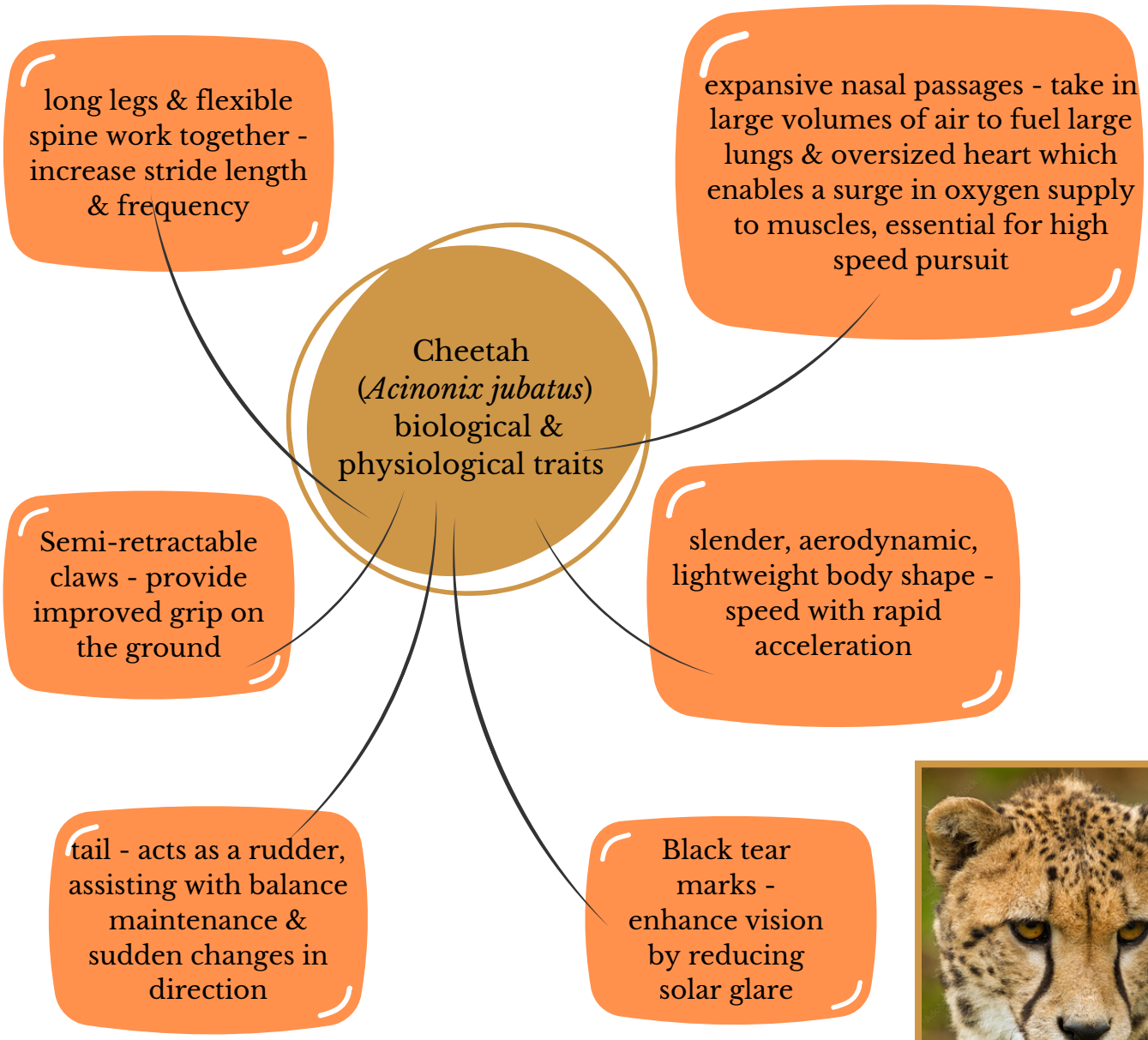
We would like to complete the design by adding a significant amount of river sand under the apparatus so as to provide additional protection in the event of a fall.

BOT has plans for many more projects going forward and we thank all who support this impactful Trust.

THANK-YOU, JEJANE GAME RESERVE AND KORU CAMP!

Photos: J. Bradfield / R.L. Reid

Cheetahs have anatomical adaptations that facilitate them earning the title of the fastest land animal on Earth.



These traits enable the following astounding feats:

- Acceleration: 0 - 95km/hour in just 3 seconds
- Endurance: sustain 112km/hour for short distances (20-30 seconds)
- Lightweight frame: 34 - 68kg
- Breathing rate:
  at rest: 60 breaths/minute
  at pace: 150 breaths/minute
- Stride: up to 7.9m
  Strides per minute: 150

Cheetahs stealthily stalk their prey to minimise the distance they will need to sprint.

Most hunts take place during the day to avoid large predator competition.

Article: https://timesofindia.indiatimes.com


https://www.thoughtco.com/how-fast-can-a-cheetah-run-4587031

Did you know?

A small population of ancient cheetahs that survived the last ice age are the ancestors of almost all modern cheetahs. The decline in their numbers at that time resulted in genetic uniformity today. The lack of genetic variation makes cheetahs more sensitive to diseases and inhibiting their ability to environmental variations.

WHERE HAVE THEY GONE?
MOPANE WORMS ON THE LANDSCAPE

There is mounting evidence worldwide that insect populations are declining, with climate change possibly resulting in shifts in species distribution.



The caterpillar of the Mopane Moth (*Gonimbrasia belina*) is a household staple for many families in the lowveld, contributing both to income and food security.

A perfect storm, if you will, over recent years is causing a decline in their numbers. Climate change, over-harvesting and changes in land-use have all impacted negatively on this creature's life cycle.

There are two breeding outbreak seasons during which harvesting occurs Dec - Jan and April - May as mopane worms are bivoltine (2 generations produced per rainy season). Rainfall and other climatic factors are known to play a critical role in triggering the emergence of egg-laying moths and the survival of the caterpillar from hatching to pupation.

Biologically, the caterpillars pass through 5 instar/larval growth phases, with only the fifth ideal for harvesting as the creatures have reached their maximum size and they are easier to degut as they have little to no plant matter remaining in their digestive tracts.

Unfortunately, harvesters are taking smaller instars due to competition from other harvesters.

Likewise, with unprecedented social change and urban influx in previously rural areas, more and more forests of Mopane trees are being lost through deforestation and habitat destruction.

Increasing temperatures are predicted to restrict areas where Mopane trees can grow and, as a result, where Mopane worms can flourish.



localkitchenblog.com/2010/07/01/mopane-worms/

A study published in *Frontiers of Biogeography* projected that even a moderate climate change circumstance in some areas will result in a loss of 99% of suitable Mopane worm habitat.

Evidence already exists showing that Mopane trees are unable to adapt fast enough to the pressures of man-made climate change.



This species will unlikely be able to expand into newly available habitat to make up for losses in affected areas. Fossil records indicate that plants used to be able to adapt to climate change by moving (usually once in a generation), but projected rates of climate change over the coming few decades are higher than any from previous data on record.

In Limpopo, 80% of households are reliant on Mopane worms as a protein source during the lean months (when grain crop production is between seasons), with a handful of dried worms providing 76% of a person's daily protein requirements. Less of this protein source could see a resultant increase in poaching and bushmeat hunting.

Deforestation for fuel (mopane wood is very popular for firewood) further impacts the abundance of worms. We have definitely noticed a sharp decline in Mopane worm numbers since our arrival at Olifants North.

FASCINATING FACTS

Whilst out and about on the reserve, we have been fortunate to witness and encounter some less usual sightings.



Chameleons only defecate once every few days. The poo is usually oval in shape and comprises two parts; the first being black or brown in colour, soft and mushy with no smell. This contains all the digestive waste. The second part is called urate and is usually white in colour. Chameleons do not urinate, instead they convert the urea into a solid form which is then excreted. This design enables them to retain more moisture for hydration.

www.a-zanimals.com



Stierling's Wren-warblers nest in broad-leafed trees, in the instance of the image, a Mopane (*Colophospermum mopane).* The nest is described as being built of felted plant down, fine grass and spider web, all woven together.

The outer shell is made of living Mopane leaves stitched together with spiderweb to create a round, thick-walled structure. The entrance is usually hidden behind some of the leaves still hanging on the tree. The discovered nest pictured here was positioned about 4m above the ground, in the mid-canopy.



http://stellenboschwriters.com/Stellenbirds/s-wrenwarbler.html

Roberts VII Multimedia Birds of Southern Africa, Android Edition V4.6, Gibbon, G. Gibbon Multimedia, 2019-2024



Balule had a particularly cacophonous start to Summer at the end of 2024, with cicada sounds 24/7 for about 6 weeks. There are currently 168 known species of cidada in southern Africa and about 3000 species worldwide. The earliest fossils date back to about 60 million years ago.

Only male cicadas sing by vibrating the tymbal (membrane-covered air sac on the abdomen) and each species produces a song at a specific frequency. Females will only respond to the frequency of their species counterpart, so an off-key male might never mate!

As these calls can be measured and translated onto sonographs, researchers are able to collect digital recordings for identification purposes.

Cicadas of Southern Africa, Stephen, R.D. SANBI, Pretoria, 2021

With the arrival of the summer rains, the bush has come alive with activity in the undergrowth and overhead.

Let's consider some lesser observed creatures to be encountered.


Image 1

Armoured Bush Cricket (Image 1)
(*Acanthoplus discoidalis*), the infamous Koringkriek!
- being omnivorous, they eat almost anything from plants to other insects and even bird nestlings.
- armoured bodies protect them from being eaten by predators as they would make a tasty meal.
- their strong jaws can bite.
- male crickets stridulate (produce long, harsh sounds by rubbing parts of their body together) to deter persistent predators.
- if predators still don't get the message, these crickets can squirt haemolymph (insect blood) up to 6cm. It is acrid-smelling and distasteful.
- their last attempt to chase away predators will be to vomit their stomach contents over their bodies.

www.wired.com

Grey Tree Frog (Image 2) (*Chiromantis xerampelina*), also called the Foam Nest Frog, is South Africa's only tree frog species. Females can be double the weight of males, and reach a length of up to 10cm! These frogs are adapted to a dry, arboreal life. They can change colour from white to dark grey, enabling camouflage against tree bark. The female produces sticky liquid by rubbing her back legs together and deposits up to 1000 eggs into foam, positioned above a body of water. These are fertilised by many attendant males. The foam prevents the eggs from drying out and protects them as well as young tadpoles from falling prey to many predators. These charming creatures are often found around buildings because lights attract insect food.


Image 2

https://www.krugerpark.co.za/krugerpark-times-5-3-let-sleeping-frogs-lie

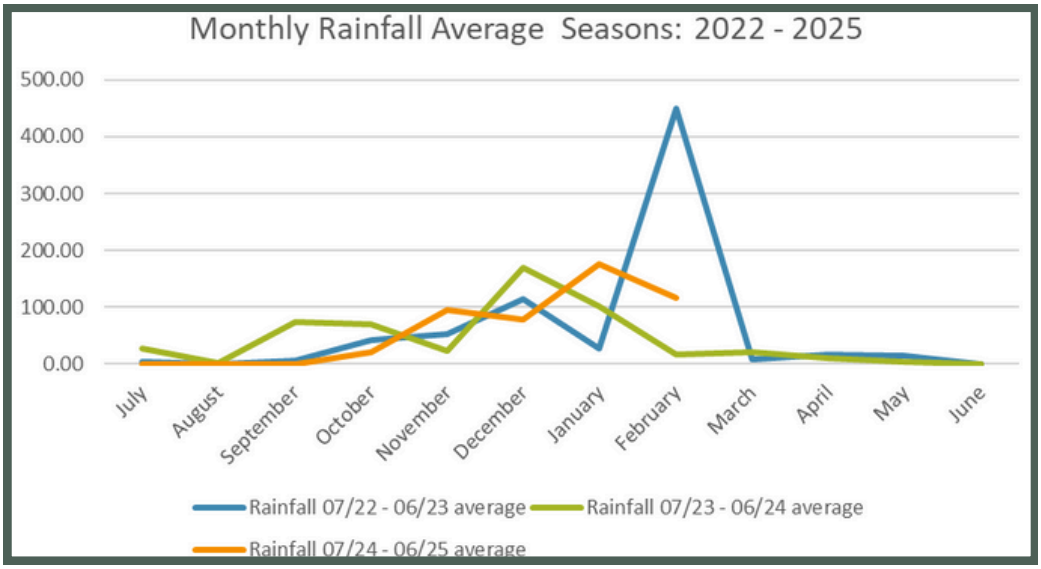
Cherry Spot moth (*Diaphone eumela* - Lily Borer) caterpillars have been gorging themselves on plants, among them the Bushveld Chincherinchees (*Albuca seineri*) (Images 3- 5).

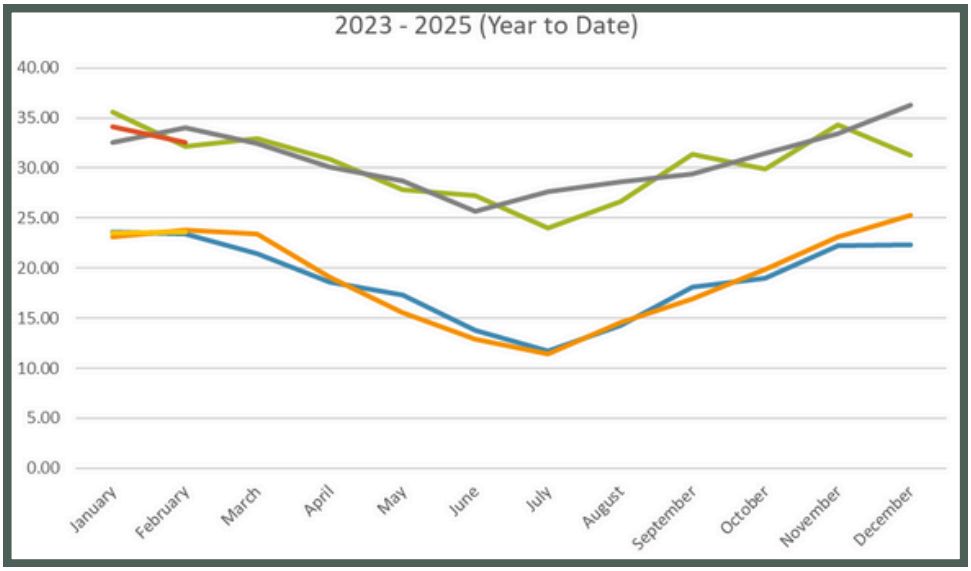

Image 3


Image 4


Image 5

RAINFALL AND TEMPERATURES





MOON PHASES

All times expressed in South African Standard Time (SAST) currently Greenwich Mean Time (GMT) +2Hrs

MARCH MOON PHASES

First Quarter 6 March at 18h31

Full Moon 14 March at 08h54

Third Quarter 22 March at 13h29

New Moon 29 March at 12h57

APRIL MOON PHASES

First Quarter 5 April at 04h14

Full Moon 13 April at 02h22

Third Quarter 21 April at 03h35

New Moon 27 April at 21h31

TRAIL CAMERA PROJECT

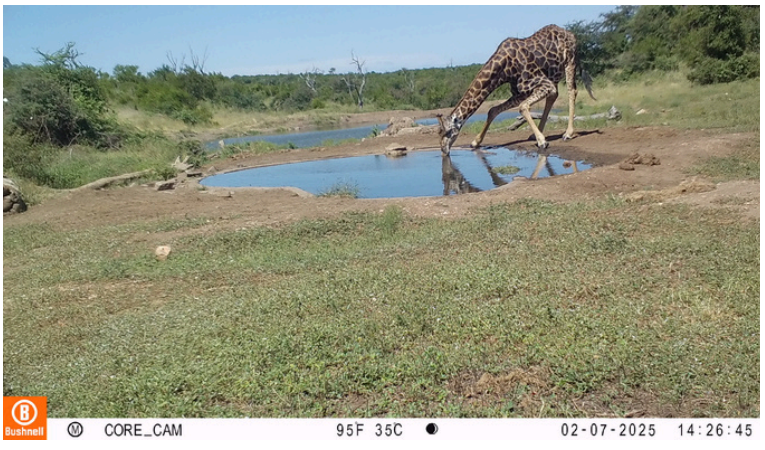

















Symmetrical sucklers


Sparring ellies
95°F 35°C Camera ID: P00LS1 02-03-2025 12:46:31


CORE_CAM 72F 22C 01-27-2025 06:13:53


CORE_CAM 74F 23C 01-27-2025 06:16:46


77°F 25°C Camera ID: CAM001 12-31-2024 09:24:47


86°F 30°C Camera ID: P00LS1 01-01-2025 16:15:42


73°F 23°C Camera ID: CAM001 02-17-2025 10:08:17


CORE_CAM 76F 24C 02-09-2025 06:16:01