



NEWSLETTER

December 2022 Issue

QUICK SCORPION FACTS

1. Scorpions Were Around Long Before the First Dinosaurs.
2. They Give Birth to Live Young.
3. Some Baby Scorpions Stay With Their Mom for 2 Years.
4. They Glow In UV Light.
5. Some Scorpions Can Go a Year Without Food.
6. Their Venom Can Include Dozens of Different Toxins

DEAR OLIFANTS FAMILY

Can you believe it's December already? It feels like we just celebrated Christmas, and now it is back! Time flies when you are having fun...

We have had some rain on the reserve with the bush turning green very quickly afterwards. The temperature has risen to the 40s already and I think we are in for a steamy December.

2022 has been a busy year with a lot having been achieved - and we're looking forward to 2023, trusting it brings you all joy and happiness. We look forward to seeing those of you who are spending time on the reserve over the festive season.

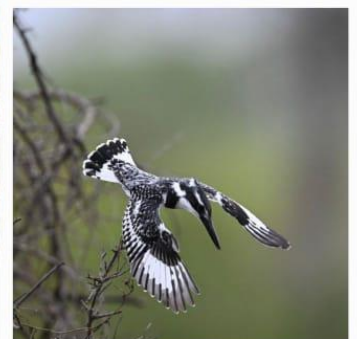
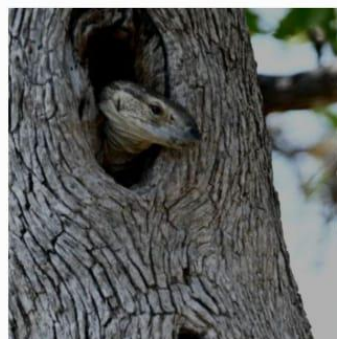
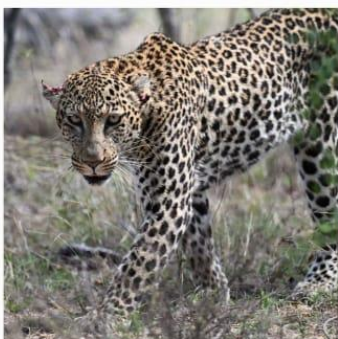
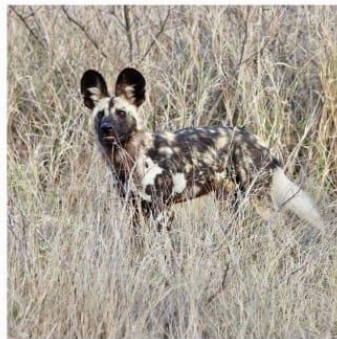
“However long the night, the dawn will break”
– African Proverb



ORGR GAME DRIVE

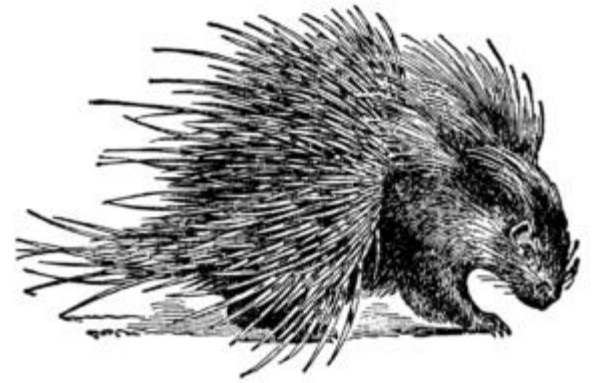
Summer is in full swing, and the bush has become denser, making it more challenging to see wildlife, but the sightings are still world-class. All of the summer migrants have returned with the first Woodlands Kingfisher recorded on the 13th of December. We have been exceptionally lucky with Wild Dogs recently with 3 different packs sighted on the reserve. A herd of buffalo spent a good couple of days on Olifants, which was excellent. Lions and leopards are readily seen throughout the reserve. Elephant numbers were very high in October but have now subsided a little as the herds disperse into the Mopani woodlands for the fresh leaves.

Thank you to those who submitted photos...please keep posting those sightings on the Telegram Group!!



CREATURE FEATURE: PORCUPINE

As African mammals go, the Cape porcupine (*Hystrix africaeaustralis*) is perhaps the least ambiguous in its message to the world around it – for a creature with a crest of spines, some of which are over 50cm in length, social distancing was never going to be a challenge. Yet despite their somewhat antisocial look, these fortified rodents have a surprisingly family-oriented approach to life and, if left alone, are relatively innocuous in their existence. Retiring and elusive, it is often only their family-shared attraction to human rubbish that alerts surrounding people to their presence.



THE BASICS

Cape porcupines are the largest rodents in Africa and the fourth largest in the world after South America's capybaras and North American and Eurasian beavers. The largest Cape porcupines measured have weighed more than 30kg, though most weigh around 20kg, with minimal size difference between the males and the females. They are found throughout southern, Central and East Africa in a wide range of habitats from deserts to forest, and live for over 10 years in the wild. At present, Cape porcupines are listed as being of "least concern" by the IUCN.

They are stocky and powerfully built creatures with short limbs, and while they can bustle off at a fair pace if disturbed, porcupines clearly do not rely on speed or camouflage as part of their predator avoidance strategy. Instead, it is their significant armoury that keeps them safe – a strategy effective for all but the most determined or foolish of predators.

THE WEAPONS

Their black-and-white quiver of quills is an example of aposematic colouring – contrasting colouration used to warn would-be predators to think twice about attacking. This is combined with specially modified hollow quills that the porcupines use to make a startling rattling sound when threatened. If these warnings are ignored, porcupines are not afraid to use these spines, sometimes to deadly effect. The quills themselves are essentially modified, hardened hairs and they come in several different shapes and sizes that all form part of the same defence system. The longest of these tend to be quite thin and flexible – the perfect tool for poking at vulnerable eyes and making it extremely difficult to get anywhere close to the porcupine's body. A second set of quills set in clusters around the porcupine's back and tail are shorter and thicker, creating a powerful barrier of spears that are used for precisely that purpose.

Despite the general misconception to the contrary, porcupines are incapable of shooting their spines at would-be attackers like some kind of archer. Instead, their technique when threatened is to stiffen their quills away from their bodies, forming a protective shield around their backs and then, if necessary, they reverse at high speed into their attacker. The ends of their quills are highly barbed at the tip, which enables quick penetration but makes removal extremely difficult and it is not all that uncommon to see leopards or lions with quills deeply embedded within their flesh. Though rare, these painful injuries and subsequent infections can prove fatal.

This stab-and-retreat approach is effective as a deterrent – most predators will back off from confrontation. That said, lions and leopards can and do kill porcupines, though in the case of lions this is unusual behaviour only seen in curious adolescents or particularly hungry individuals. Young leopards also find themselves attracted to the allure of such slow-moving prey and some develop unique strategies that allow them to become

porcupine specialists. Using their finely honed ambush skills, these porcupine enthusiasts aim for the head before the porcupine has time to fire up its defence systems.

Fascinatingly, spotted hyenas very seldom bother to harass porcupines. In areas with high availability of prey (without such thorny exteriors), hyena cubs and porcupines sometimes share the same set of burrows. However, the rambunctious hyena cubs usually send their neighbours packing eventually. As diurnal animals, warthogs tend to make better roommates, returning to the burrow just as the porcupines are getting ready to depart. Unless there has to be an unfortunate mistiming of entry, these arrangements tend to be largely without incident.

Only the most determined – and fiercest – of predators will take their chances with a porcupine’s highly barbed quills. (View more of Anna-C Nagel’s images via [@wildphotographix](#), and read the story of this encounter between a honey badger and Cape porcupine via the link under Resources below)

DIET AND BEHAVIOUR

Porcupines are almost entirely nocturnal, emerging from their underground burrows at dusk to set off in search of a mostly plant-based diet, ranging across a territory that can be over 200 hectares in certain areas. As previously mentioned, porcupines do display a particular proclivity for raiding human habitation in search of tastier meals. Vegetable gardens prove to be a particularly attractive option and unless well-protected, will seldom survive long in an area where porcupines roam. Some individuals become so brazen that they have been known to enter houses, much to the bemusement and occasional surprise of resident humans and pets. Thanks to their rodent incisors, the signs of porcupine feeding activity are easy to spot. They have a particular appreciation for the bark at the base of tamboti trees (*Spirostachys africana*), even though the latex secreted by these trees is extremely toxic to humans. Their foraging activities are not entirely limited to the vegetarian options, and they regularly gnaw on bones to supplement their mineral intake.



REPRODUCTION

Porcupines are monogamous, and both the male and female play a role in raising and protecting their young (known as porcupettes – watch this cute video). The pair mates regularly (and carefully) throughout the year, though the female typically only has one litter each year, usually during the wet season. The average number of offspring is one porcupette, but there can be up to three in a litter, born with soft quills that harden a few days after birth. The young spend their first few weeks close to the safety of a set of burrows before they are old enough to accompany their parents on foraging excursions. They reach sexual maturity at around a year old, and both the males and females disperse from their natal groups once they mature.

RESILIENT THROUGH AND THROUGH

Even though they are sometimes hunted and eaten in the bushmeat trade and their quills are used for both ornamental purposes and traditional medicine, overall Cape porcupine numbers remain stable for now. There are regions where they are more likely to be persecuted, particularly in farming areas where their dietary preferences and ability to dig under fences do little to endear them to their human neighbours. Yet, like many members of the rodent family, Cape porcupines have shown themselves to be both resilient and adaptable to the ever-encroaching human impact on their natural habitats.

CONSERVATION: BALULE GAME CENSUS 2022

Objective

The objective of this report is to present an as fair as possible indication of the total game numbers on Balule Nature Reserve. Although no census is 100% accurate, by repeating the same processes each year we can rely on the trends generated by the comparative data. We require this useful information for numerous management functions performed across the protected area. The collection of data is obtained from the following functions undertaken on BNR this year:



Methodologies for each census.

1. Fixed wing :

Buffalo location & herd demographic study.

Dr Wynand Uys flew a grid pattern over BNR and located buffalo herds. Once located Dr Darren Peterson drove to the located herd and took high-resolution images. He then noted the demographics of the herds and provided a separate specialist buffalo study for the buffalo on BNR.

2. Rotary aerial census:

From the 23rd to 26th of September 2022, a rotary aerial census was conducted over the entire BNR. Grid patterns were pre-programmed into the GPS of the helicopter before the census began. 300m Grids were flown, in an East / West direction. The count was conducted using a Robinson R44 piloted by Gerry McDonald. Two spotters and a data logger were in the helicopter. The pilot and data logger also assist with spotting and counting.

3. Predator Census:

A predator census which commenced on the 8th of August 2022 and ended on the 1st of September was conducted, details of which follow in Section 6 of this report.

4. Monitoring Inputs:

For certain herbivores, aerial counting methods are known to “miss” some of the known individuals in certain areas. The Wardens and other specialist monitoring programs provided additional verified data on known individuals of the following species in their respective regions: Sharpe’s grysbok and Black and White rhino.

5. Avifauna survey – Olifants river:

Each year at the beginning of August an avifaunal survey is conducted over the full length (43km) of the Olifants river in Balule. Both the northern and southern bank has a team that walks the entire length of the bank. All water birds, hippos, crocodiles, Pel’s fishing owls and vulture nests are recorded. The vulture nests are logged on GPS and checked during each survey and any new nests discovered are recorded.

Notes to table and species analysis:

- **Note 1: Black rhino** – are monitored and reported on a monthly basis. The total of 27 represents the total number of individuals accounted for during the census period.
- **Note 2: Blue wildebeest & zebra**– Despite the excellent veld condition this year there was still a marked decline in these species. The high predator numbers are the most likely cause of the consistent decline. Each species is affected by different predators. This is discussed further under each listed species later in the report.
- **Note 3: Kudu** – Increase in population is attributed to better spotting conditions than a growth in the population.
- **Note 4: Steenbok** – The significant increase is attributed to better spotting conditions rather than a substantial increase in the population.

- **Note 5: Waterbuck** – The increased count indicates that last year’s decline was due to a combination of movement and predation and not predation alone.
- **Note 6: Wild dogs** – During the census period, 2 dispersal groups from the large “Klaserie” pack were on Balule and therefore counted. The high percentage increase in wild dog numbers is due to this and not from successful breeding.

Consolidated Game Numbers for BNR

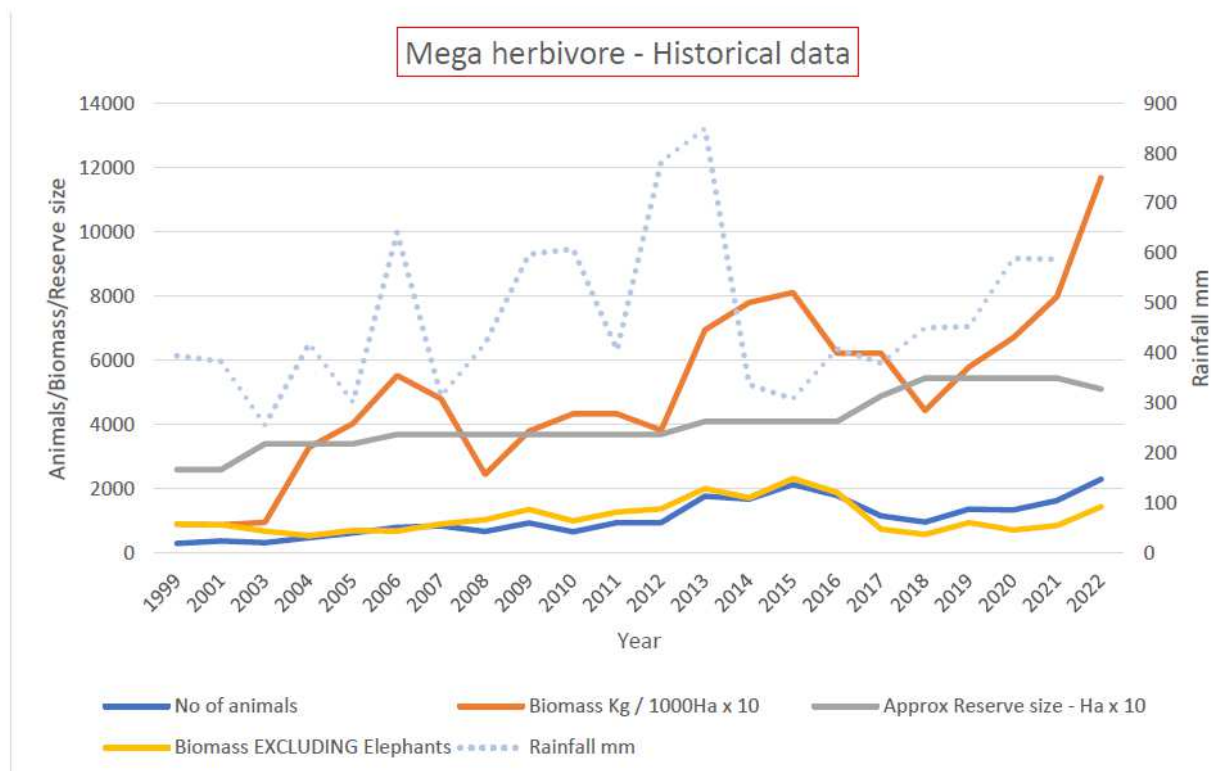
Specie	Rotary aerial Census	Predator Census	Monitoring inputs	Total 2020	Total 2021	Consolidated Total 2022	Change 2 years	Notes
African Wildcat	0			4	2	0		
Baboon troops	18		4	23	23	22	-4%	
Blue Wildebeest	22			107	46	22	-79%	2
Buffalo	621			266	376	621	133%	
Bushbuck	38			41	15	38	-7%	
Crocodile	67			29	30	67	131%	
Duiker	37			30	16	37	23%	
Elephant	1376			883	1053	1376	56%	
Giraffe	258			249	272	258	4%	
Ground Hornbill	6			6	6	6	0%	
Hippo	227			131	140	227	73%	
Honey Badger	0	2		5	0	2		
Hyena	2	102		91	96	102	12%	
Impala	7665			8326	7354	7665	-8%	
Jackal BB	4	16		18	16	16	-11%	
Kudu	561			490	386	561	14%	3
Klipspringer	3		6	12	6	9	-25%	
Leopard	3	73		57	76	73	28%	
Lion	44	124		137	124	124	-9%	
Monkey troops	10			12	8	10	-17%	
Nyala	40			28	22	40	43%	
Raptor nest	51			56	44	51	-9%	
Sable	0			11	2	0		
Sharpes Grysback	6		24	34	40	30	-12%	
Steenbuck	52		32	22	32	52	136%	4
Vulture nest	90			116	113	90	-22%	
Warthog	111			124	104	111	-10%	
Waterbuck	212			255	157	212	-17%	5
Wild dog	0	41		21	22	41	95%	6
Zebra	149			271	201	149	-45%	

Mega herbivore report.

The total numbers of mega herbivores on BNR increased from 1345 in 2020 to 1637 in 2021, and to 2299 in 2022. It is important to note we counted 4000Ha less in 2022 than the previous year due to OREC’s exclusion from Balule. The overall biomass increased from a total of 67 041Kg / 1000Ha in 2020 to 79 825Kg / 1000Ha in 2021 to 106 282Kg / 1000Ha in 2022.

Species	2020	2021	Density 2021	2022	% Change	Density 2022
Buffalo	266	376	3528kg / 1000Ha	621	65%	6407 kg / 1000Ha
Black Rhino	25	27	401kg / 1000Ha	27	0%	441kg / 1000Ha
Elephant	883	1053	71 279kg / 1000Ha	1376	31%	102 426 kg / 1000Ha
Hippo	131	140	3340kg / 1000Ha	227	62%	5955kg / 1000Ha
Rhino	40	41	1278kg / 1000Ha	48	17%	1646 kg / 1000Ha
Total	1345	1637	79 825kg / 1000Ha	2299	46%	116 875kg / 1000Ha

In 2018, biomass for mega herbivores was 44 440kg / 1000Ha. In 2019 this value increased to 58 279kg / 1000Ha (an increase of 31%). In 2020 this increased to 67 041Kg / 1000Ha (increase of 15%). In 2021 it increased again to 79 825Kg / 1000Ha (19% increase). In 2022 it rose substantially to 116 875 Kg / 1000Ha. This equates to a further 33% increase in the biomass of mega herbivores per 1000Ha. The majority of this substantial increase is again due to the continuous rise in elephant numbers, the return of some buffalo herds and an increase in the number of hippo counted.



Above indicates that elephants account for 87% (89% last year) of the current total megaherbivore biomass on BNR (102 426 Kg / 1000Ha of the total 116 875 Kg / 1000Ha). Therefore buffalo, hippo, black & white rhino represent a total of 14 449 Kg / 1000 Ha (last year they represented 8 546Kg / 1000Ha).

Elephant Numbers:

Elephant numbers increased by an alarming 28% compared to 2021 (physiologically impossible). Since 2018 the elephant numbers have increased from 565 to 1376. In 2022 we counted approximately 4000Ha less with the removal of the OREC region from Balule. The density of elephant has increased to **27 elephants / 1000 Ha**. Common stocking rates in low carrying capacity areas is 1 / 1000Ha and up to 4 / 1000Ha in high carrying capacity areas. In the years where KNP restricted the elephant population to 7500 animals, this equated to 3,75 animals / 1000Ha. For the second consecutive year the density of elephants North of the Olifants river has been higher than the South.

REACHING OUT

'Tis the season to be thoughtful, kind and ... giving!

Staff Christmas Party

As always, our Olifants members have “come to the party” in terms of generosity

The call out recently by Susan Harwood (Outreach) for willing members to donate funding for Christmas gifts for the staff's offspring was incredibly well supported. Most members offered to donate funding, although some preferred to wrap gifts themselves – and we have now received all 42 parcels (for children aged between 7 months to 19 years old). These will be handed out at the staff Christmas party on 17th December 2022.

The balance of funding, combined with another generous donation by a member will be used to cover the catering costs.

Staff's children going to Koru Camp

This festive season the Balule Outreach Trust is covering the costs to send our staff's children (aged between 10 and 18) to Koru Camp, run by the Tanglewood Foundation. The camp is situated on a neighboring reserve and offers the children invaluable environmental education packaged in a fun engaging way.

They will go on a 5 night Koru Camp visit from the 12th to the 17th of December. It will be an experience of a lifetime for them! Thank you to Balule Outreach and Peter Eastwood.

<https://korucamp.org/>

This is a good time to remind everyone that the Balule Outreach Trust relies upon the benevolence of like-minded individuals and groups who have the best interests of our beautiful reserve at heart. It is absolutely essential for us to not only maintain and preserve the flora and fauna of this wonderful tract of land we are privileged to be custodians of, but to also uplift the surrounding communities, affording impoverished families a better life. Herewith details of BOT, should you wish to make a monetary contribution:

Banking details of the BALULE OUTREACH TRUST

First National Bank (FNB), Bryanston, South Africa

Account number: 6233 678 7877 Clearing Code: 250-017

Swift number: FIRNZAJJXXX

Please reference EFT payments with your name.



MEMBERS UPDATES

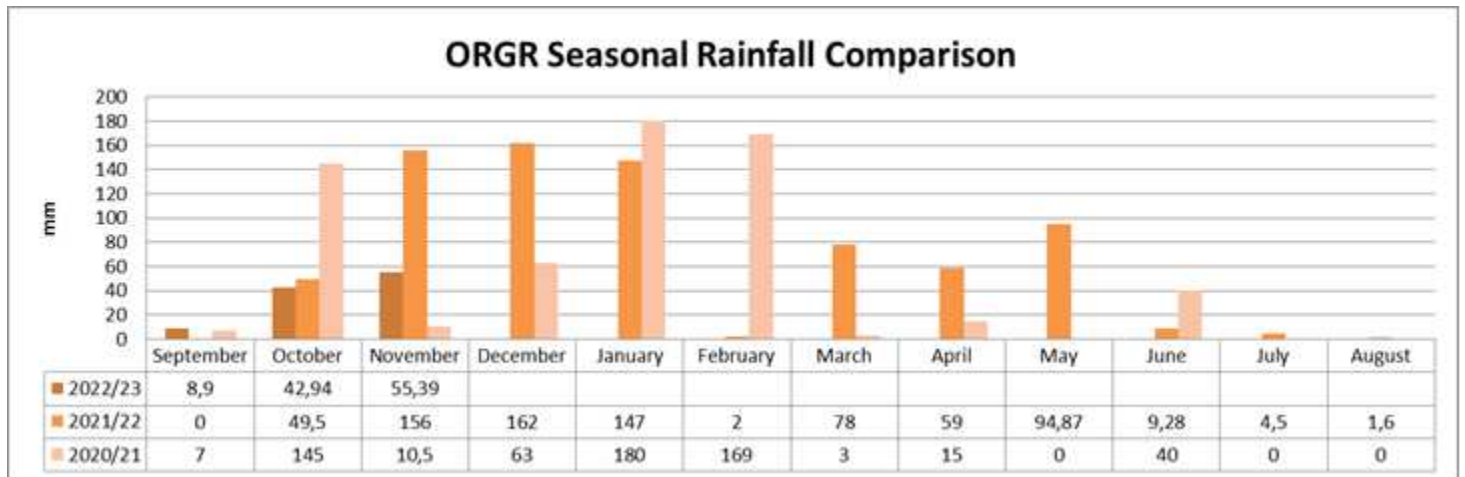
THE WEATHER REPORT

The El Niño-Southern Oscillation (ENSO) is currently in a La Niña state, and forecasts indicate that it will likely remain in this state during the remainder of the 2022/23 summer season. The presence of a La Niña event usually has its strongest impact on rainfall during the mid-summer months. With the continued persistence of the La Niña event, there is a high chance that it will have its usual effect on South Africa, which is generally for above-normal rainfall and below-normal temperatures over the summer rainfall areas.



The multi-model rainfall forecast indicates above-normal rainfall for most parts of the country for all predicted seasons. Minimum temperatures are still expected to be mostly above-normal countrywide, however, maximum temperatures are expected to be below normal over most of the country during all predicted seasons.

We have received 107mm of rain up to November this year, insignificantly less than in previous years at the same time. In 2021 we received 205mm and in 2020 165mm respectively. We have had a good initial greening up of the reserve, but this was followed by a long hot period without rain which caused the grasses to dry out a little again.

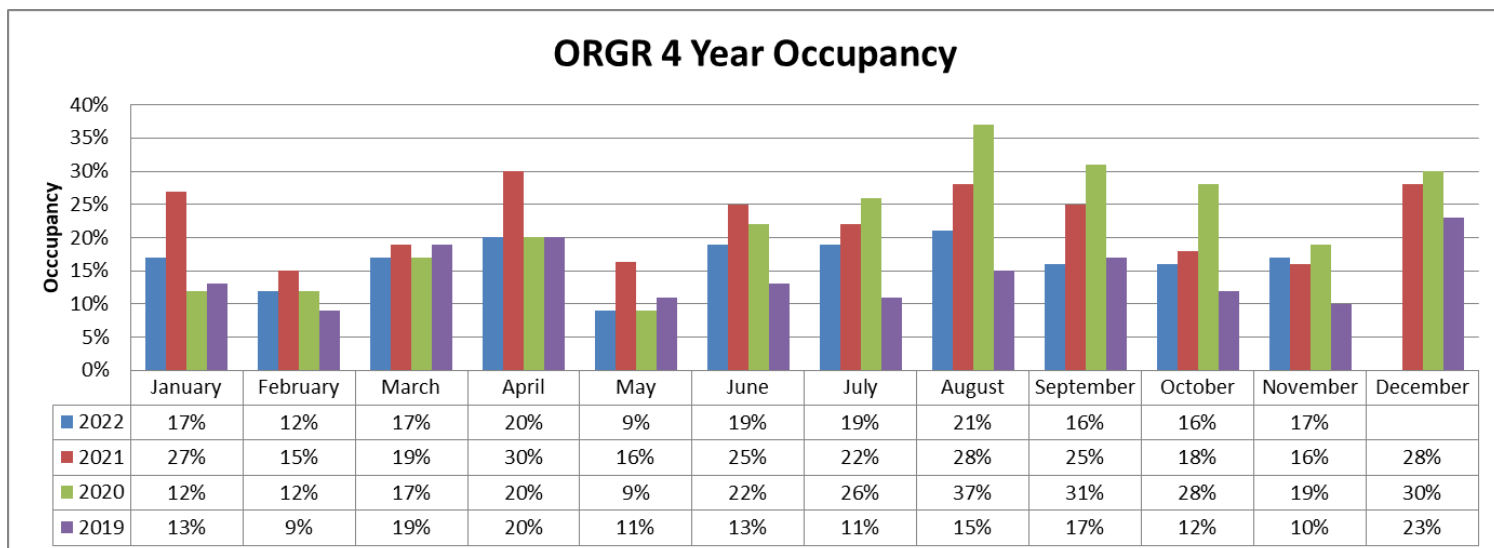


October 2022 Summary				November 2022 Summary			
	High	Low	Average		High	Low	Average
Temperature	40.8 °C	0.0 °C	25.9 °C	Temperature	39.6 °C	16.1 °C	25.1 °C
Dew Point	21.2 °C	3.8 °C	15.8 °C	Dew Point	23.9 °C	10.3 °C	17.2 °C
Humidity	97 %	0 %	58 %	Humidity	97 %	22 %	65 %
Precipitation	42.94 mm	--	--	Precipitation	55.38 mm	--	--
Wind Speed	26.2 km/h	0.0 km/h	6.2 km/h	Wind Speed	29.0 km/h	0.0 km/h	5.8 km/h
Wind Gust	38.0 km/h	--	9.4 km/h	Wind Gust	37.0 km/h	--	8.7 km/h
Wind Direction	--	--	SSE	Wind Direction	--	--	SSE
Pressure	1,016.32 hPa	996.48 hPa	--	Pressure	1,015.48 hPa	997.26 hPa	--

OCCUPANCIES

October averaged out at 16% occupancy with the busiest day seeing 16 units in residence and the quietest day seeing only 10. November saw an occupancy of 17% with the busiest day seeing 20 units in residence.

Average Occupancies	
2022	17%
2021	22%
2020	22%
2019	14%



OUR NIGHT SKY IN OCTOBER

In a nutshell...

Moon

Date	Time	Phase
08/12	06h08	Full Moon
16/12	10h56	Last Quarter
23/12	12h16	New Moon
30/12	03h20	First Quarter

Sun and Moon

The Full Moon occurs on 8th of December at 06h08 and the Last Quarter Moon falls on the 16th of December at 10h56. The New Moon occurs on the 23rd of December at 12h16 and the First Quarter Moon falls on the 30th of December at 03h20. The Moon will be at apogee (furthest from Earth) at a distance of about 405 869 km on the 12th of December at 02h28. The Moon will be at perigee (closest approach to Earth) at a distance of about 358 270 km on the 24th at 10h26.

The summer solstice will occur on the 21st of December at 23h48.

Planet Visibility

Mercury is visible near the stars of the constellation Sagittarius.
 Venus is visible near the stars of the constellation Sagittarius.
 Mars is visible near the stars of the constellation Taurus.
 Jupiter is visible near the stars of the constellation Pisces.
 Saturn is visible near the stars of the constellation Capricornus.

Some easy to identify bright stars

Rigel: blue supergiant in Orion
 Betelgeuse: red supergiant in Orion
 Procyon: yellowish white star in Canis Minor
 Sirius: brightest star in the night sky, located in Canis Major
 Antares: red supergiant in Scorpius
 Arcturus: red giant in Boötes
 Spica: brightest bluish-white star in Virgo
 Canopus: yellowish-white star in Carina
 Altair: a white star, brightest in Aquila
 Regulus: blue-white star and the brightest star in Leo
 The Pointers: Alpha and Beta Centauri

K9 UPDATES

Zingela, our new K9 tracking hound is doing very well. She is full of energy and has excellent drive and will no doubt make a top working dog soon. Her training will begin in a month or so and as with Tiya, she will be trained in-house by our team. Once she is operational, ORGR will have two top-class tracking hounds at our disposal.

We had a bit of a scare recently as Tiya was unfortunately bitten on the face by a Black Mamba. She was envenomated just below the eye by the bite. We rushed her to ProVet in Hoedspruit as quickly as possible and managed to get her the last vile of Antivenom and a shot of adrenaline. We were very lucky that the response was quick and that the vets happened to have some antivenom. The incident left her with some complications with her eye which thankfully cleared up and she is back to her usual self.



Sadly we had to say our goodbyes to our retired tracking hound Jan, who joined the free-running pack of hero K9s on the other side of the rainbow. Jan sadly passed away from a severe heart condition recently in Johannesburg.

Jan was responsible for reigniting the ORGR K9 project and he was also responsible for the capture and arrest of the criminal who killed our last poached rhino in October 2020. He served a long life as a working dog, contributing many years to the protection of wildlife as he worked in Kruger for a number of years before joining our team. A big thank you must go out to Nancy and Allan Hartman who took Jan in after his active duty and showed him the best life for his last days on earth! We are forever grateful for the love and care you showed our Jan! RIP boy, you will never be forgotten.



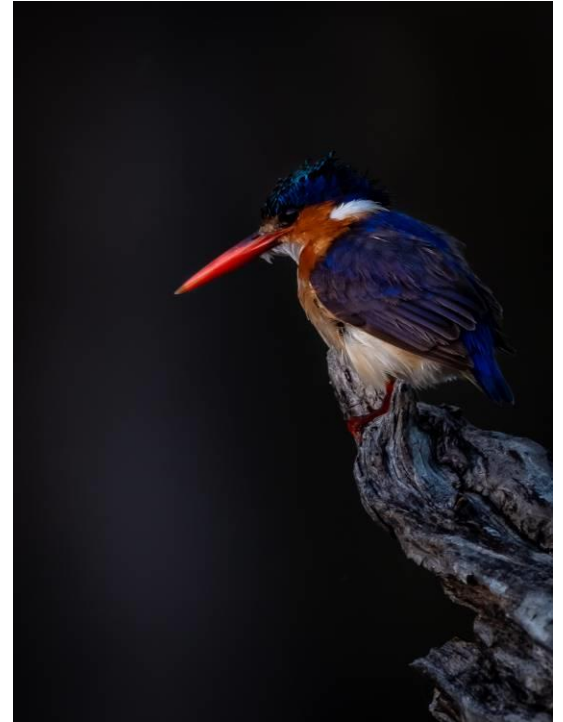
ORGR BIG BIRDING DAY

Fancy yourself a bit of a bird nerd? Why not join us for our ORGR Birding Day? We would like to hold a Big Birding day on the reserve for those members who are in residence on Thursday the 22 of December 2023.

You are welcome to enter a team between 2 and 8 Birders. To enter, please send me your Team Name (Make it fun) and the names of participants to warden@olifantsreserve.co.za to register. Please register by the 20th of December 2022.

Rules:

- On BBD, record all the bird species seen or heard during 24 hours from midnight on Wednesday 21 December to midnight on Thursday 22 December 2022. You can bird all 24 hours or just a few hours, up to you!
- You can record your list on paper, but we prefer that you use the BirdLasser mobile app. Get in touch with me for more info on Birdlasser.
- The majority (for example 2 out of three or 3 out of four) of the team members have to agree on a call or sighting.
- Teams are requested to limit the use of callback to attract birds to an absolute minimum (preferably avoiding using callback at all).
- Only birds seen or heard within the ORGR and ONGR properties may be recorded.
- Most importantly have fun and enjoy the day out in the field!
- Submit your Bird list to me via email by 0800 on Friday the 23rd of December. This is very easy using the Birdlasser App.
- Prize giving will take place at 1800 on the 23rd at the Clubhouse and we will have a little bring and braai.



The Olifants Management will be entering their finest Birders, Who is up to challenge us?

GUESS WHO'S BACK?



Just in time for the Festive Season!!! Our beloved Original ORGR Baobab-infused Gin is available again from the 12th of December. We are very excited to bring this Gin back into production and will be selling it at the same price as the last batch will all the proceeds going to our Antipoaching efforts.

This is one of the best tasting Gins around and makes for fantastic gifts. A bottle will cost you R499 and a case of 6 is R 2699.

Be sure you grab some bottles fast as the stocks will be flying off the shelves at a rapid rate. |



ORGR CLASSIFIEDS

Petronella Clark from unit 12 is parting with some of her beloved photographic equipment. She is selling the gear below so please get in touch directly should you be interested in any items. Petronella Clark, Email: petc1@outlook.com Cell +27 83 252 5132.



MOUNTAIN VIEW UPGRADE

We have done a little upgrade on the Mountain View Lookout Spot (aka World's View).

The upgrade included redoing the latte roof and support structures, new concrete benches with a backrest counter on one side and a broader, easier-to-use stair leading up to the site. This is a magical spot at any time of the day and the upgrades have refreshed the area nicely and have made it more functional. Enjoy it!



THE FINAL WORD

2022 has come to a close and we all face a range of adventures and challenges in the new year. It's a time to reflect on the past 12 months, wherein some have been tough, some filled with joy - and others with the prospects of new things to come. I leave you with this poignant prose to reflect upon 2022.

Fear

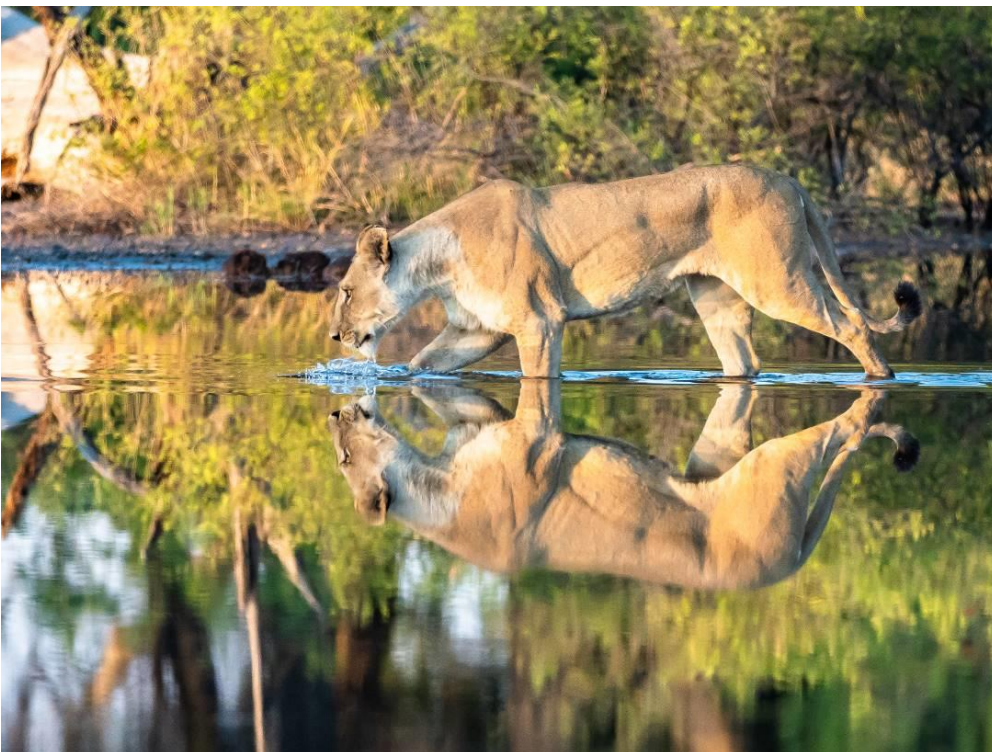
By Khalil Gibran

“It is said that before entering the sea
a river trembles with fear.
She looks back at the path she has travelled,
from the peaks of the mountains,
the long winding road crossing forests and villages.

And in front of her,
she sees an ocean so vast,
that to enter there seems nothing more than to disappear forever.
But there is no other way. The river can not go back.

Nobody can go back.
To go back is impossible in existence.

The river needs to take the risk
of entering the ocean
because only then will fear disappear,
because that's where the river will know
it's not about disappearing into the ocean,
but of becoming the ocean.”



We hope you enjoyed the read and
hope to see you on the reserve soon!

Warm regards

Nick and the Olifants Team!

BIBLIOGRAPHY

Night Sky – SAAO
Porcupine – Africa Geographic
Census - BNR