



NEWSLETTER

February 2023 Issue

ORGR Game Count as of September 2023

Wildebeest:	15
Bushbuck:	6
Crocodiles:	16
Elephant:	151
Giraffe:	14
Hippo:	48
Hyena:	20
Impala:	1362
Kudu:	58
Leopard:	9
Lion:	28
Nyala:	21
Warthog:	26
Waterbuck:	6
Zebra:	15

DEAR OLIFANTS FAMILY

Happy New Year! As we embark on the exciting journey that is 2024, it is with great pleasure that we present the inaugural newsletter of the year. This edition marks the beginning of a new chapter, filled with fresh opportunities and wildlife adventures. We are thrilled to share the latest updates, conservation news, and stories from our remarkable reserve, as we continue our collective efforts to preserve and celebrate the rich biodiversity that makes the Olifants River Game Reserve a truly extraordinary place. Join us in embracing the spirit of renewal and growth as we dive into the first edition of the year, connecting us all in the shared love for our unique corner of the wilderness.



ORGR GAME DRIVE

Members of Olifants River Game Reserve, rejoice in the recent game viewing experiences that have graced our lush and verdant haven during the peak of the summer season. Notable sightings include a hyena clan engrossed in a giraffe kill, providing a glimpse into the raw dynamics of nature. Buffalo herds traverse the landscape, offering excellent viewing opportunities. A heartwarming addition to our reserve is the birth of a new baby hippo at Hide Dam, a delightful testament to the flourishing wildlife. In a rare occurrence for this area, a female Eland has been sighted twice, adding a touch of uniqueness to our diverse ecosystem. The frequent presence of lions and leopards continues to captivate, while African Wild Dogs have graced us with their visits on multiple occasions. As the bush teems with life, the air resonates with the hum of insects, and a symphony of bird calls accompanies every adventure. These sightings and experiences affirm Olifants River Game Reserve as a sanctuary where the marvels of nature unfold for our members to cherish.



CREATURE FEATURE: THE VELVET MITES

The Enigmatic World of Red Velvet Mites: Tiny Marvels with a Big Impact

Red Velvet Mites, scientifically known as Trombididae, are intriguing arachnids that captivate both researchers and nature enthusiasts alike. Despite their minuscule size, these tiny creatures play significant roles in various ecosystems, demonstrating the intricate balance of nature. Let us delve into the fascinating world of Red Velvet Mites, exploring their characteristics, behaviors, and ecological importance.

Appearance and Habitat: Red Velvet Mites are named for their vibrant and striking red coloration, which distinguishes them from other mites. Typically measuring only a few millimeters in length, their compact size belies their importance in the soil ecosystems they inhabit.

Found in diverse environments worldwide, from forests to deserts, these mites thrive in the upper layers of soil, where they contribute to nutrient cycling and decomposition.

Life Cycle and Behaviour: The life cycle of Red Velvet Mites is characterized by distinct stages, including egg, larva, nymph, and adult. During the larval stage, these mites are parasitic, attaching themselves to insects. This parasitism plays a vital role in controlling pest populations, as they feed on insect eggs and larvae. Once they transition to the nymph and adult stages, Red Velvet Mites become free-living predators, preying on smaller arthropods, mites, and even nematodes.

Ecological Importance: Red Velvet Mites contribute significantly to the health of ecosystems. As predators of harmful insects and pests, they aid in regulating population sizes and maintaining ecological balance. Additionally, their activities in the soil enhance nutrient cycling, promoting healthier plant growth. Their role in breaking down organic matter also contributes to the decomposition process, further enriching the soil.

Adaptations and Survival Strategies: These mites exhibit various adaptations that enable them to thrive in diverse environments. Their water-resistant exoskeletons allow them to endure dry conditions, and their ability to produce silk aids in constructing protective shelters. Furthermore, their distinctive coloration may serve as a warning to potential predators, signaling their unpalatability due to the presence of toxic compounds.

Scientific Interest and Potential Applications: Red Velvet Mites have garnered attention from scientists not only for their ecological roles but also for their potential in various fields. Researchers are exploring the bioactive compounds present in these mites for potential pharmaceutical and medical applications, including antimicrobial and antifungal properties.

In the intricate web of ecosystems, Red Velvet Mites stand out as small yet vital players, showcasing the interconnectedness of all living organisms. Their vivid appearance, unique life cycle, and ecological contributions make them subjects of both scientific curiosity and admiration. As we continue to unravel the mysteries of these tiny marvels, their significance in maintaining the delicate balance of nature becomes increasingly apparent.



CONSERVATION

BALULE GAME CENSUS 2023

The census report aims to provide a comprehensive overview of the total game numbers on Balule Nature Reserve (BNR). The data, collected through various surveys, is utilized for management functions within the protected area. The surveys include a predator census, rotary aerial census, fixed-wing buffalo location and herd demographic study, ongoing white and black rhino monitoring, and a vulture nest survey along the Olifants River.

The methodologies for each census are fixed-wing buffalo study, where buffalo herd locations are identified during a rotary census, and high-resolution images are taken for demographic analysis. The rotary aerial census, conducted in September 2023, involved flying grid patterns over BNR, with spotters and a data logger in the helicopter to count and record game; and a predator census which occurred in August 2023.

Additionally, monitoring inputs from wardens and specialized programs contribute verified data on specific herbivores like Sharpe's grysbok, black and white rhino. The vulture nest survey along the Olifants River, conducted annually in August, covers the entire length of the river, recording various bird species, hippos, crocodiles, Pel's fishing owls, and vulture nests using GPS technology.

Species Analysis:

Black rhino / White rhino – Black and White rhino are monitored and reported on monthly. Three new black rhino calves were located during the aerial census. White rhino population has seen a positive growth rate during the past year, however up to five BNR individuals were in Klaserie during the census period.

Blue wildebeest, Giraffe, Impala, Klipspringer, Sharpe's Grysbok, Warthog, Waterbuck & 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 species later in the report.

Buffalo - Increase in population is attributed to inward migration. Previous year's total was lower than actual due to a large herd drinking over the Klaserie cutline during the count. One large herd with over 650 individuals counted in BPNR.

Crocodile – The significant increase is attributed to better spotting conditions rather than a substantial increase in the population. The increase is over 2-year period. Although there has been an increase in population, poor water clarity is the most likely reason for exceptionally low count 2 years ago.



BALULE
NATURE RESERVE

Hippo – The increase in hippo numbers is a combination of inward migration, breeding and exceptionally clean water in the Olifants during this count.

Hyena – Significant decline. Most likely due to competition with lions at feeding events. Increased Brown Hyena sightings can also be attributed to lower density of Spotted Hyena.

Black back Jackal - Significant decline. Similar reasons as for Hyena decline. Also Northern areas had a number of individuals with severe mange in previous year.

Leopard – Decline in leopard numbers is due to certain regions not maintaining previous monitoring efforts. Decline is not attributed to population decline but rather less individuals verified during census period. Next year’s count will give a clearer trend on the actual leopard numbers. Olifants West data also not included in the count.

Lions – Lions verified during census period. Olifants West data not included. Aerial census numbers for lions are not accurate. Lion total is only those verified during the predator census.

Vulture & Raptor nests – Significant decline due to excessive tree damage and nesting sites available.

Vultures discussed in more detail later in the report. Poisonings also contributing to the decline in Vulture nests. Large riverine trees are the only viable nesting options for these birds. Tree damage report to be published at a later date but it will correlate with the severe decline on nests across the reserve.

Mega Herbivore Report

The total numbers of mega herbivores on BNR increased from 1345 in 2020 to 1637 in 2021, to 2299 in 2022 and to **3375 in 2023**. 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 and to **142 168 Kg / 1000Ha in 2023**.

Consolidated Census numbers.

Specie	Census figures 2023	Total 2021	Total 2022	Consolidated Total 2023	Change 2 years	Notes
African Wildcat	0	4	0	0		
Baboon troops	21	23	23	21	-9%	
Black Rhino	32	25	27	32	28%	1
Blue Wildebeest	27	107	22	27	-75%	2
Buffalo	1423	266	621	1423	435%	3
Bushbuck	41	41	39	41	0%	
Crocodile	84	29	72	84	190%	4
Duiker	19	30	37	19	-37%	
Elephant	1581	883	1376	1581	79%	
Giraffe	189	249	286	189	-24%	2
Ground Hornbill	8	6	6	8	33%	
Hippo	291	131	234	291	122%	5
Honey Badger	2	5	0	2		
Hyena	63	91	107	63	-31%	6
Impala	7129	8326	8462	7129	-14%	2
Jackal BB	4	18	17	4	-78%	7
Kudu	479	490	580	479	-2%	
Klipspringer	4	12	3	4	-67%	2
Leopard	43	57	75	43	-25%	8
Lion	114	137	126	114	-17%	9
Monkey troops	10	12	8	10	-17%	
Nyala	31	28	40	31	11%	
Raptor nest	3	56	54	3	-95%	10
Rhino	48	40	47	48	20%	
Sable	2	11	0	2		
Sharpes Grysbuck	6	34	6	6	-82%	2
Steenbuck	24	22	32	24	9%	
Vulture nest	30	116	82	30	-74%	10
Warthog	91	124	128	91	-27%	2
Waterbuck	174	255	242	174	-32%	2
Wild dog	38	21	41	38	81%	11
Zebra	159	271	165	159	-41%	2

Balule census report – October 2023

Species	2021	2022	Density 2022	2023	% Change	Density 2023
Buffalo	376	621	6407 kg / 1000Ha	1423	129%	14 681 kg / 1000Ha
Black Rhino	27	27	441kg / 1000Ha	32	19%	523 kg / 1000Ha
Elephant	1053	1376	102 426kg / 1000Ha	1581	15%	117 685 kg / 1000Ha
Hippo	140	227	5955kg / 1000Ha	291	28%	7633 kg / 1000Ha
Rhino	41	48	1646kg / 1000Ha	48	0%	1646 kg / 1000Ha
Total	1637	2299	116 875kg / 1000Ha	3375	34%	142 168kg / 1000Ha

Table 3: Mega herbivore count 2023 compared to 2021 & 2022:

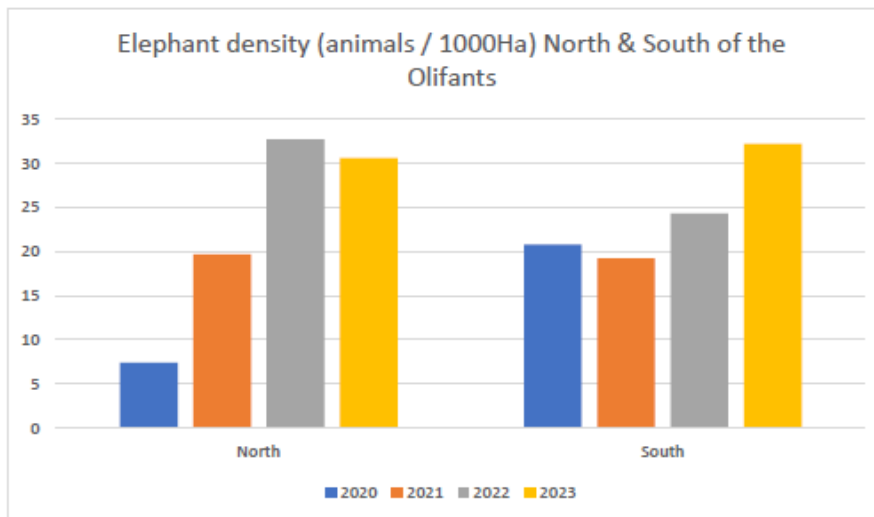
In 2018 biomass for mega herbivores was 44 440kg / 1000Ha. In 2019 this value increased to 58 279kg / 1000Ha (an increase of 31%). In 2020 this increased to 67 041Kg / 1000Ha (increase of 15%). In 2021 it increased again to 79 825Kg / 1000Ha (19% increase). In 2022 it rose substantially to 116 875 Kg / 1000Ha (a 33% increase on 2021). 2023 showed another 34% increase compared to 2022 with a total of 142 168 Kg / 1000Ha. Substantial increases in buffalo, elephant and hippo resulted in this increase.

Elephant:

Elephant numbers increased by 15% to 1581. Since 2018 the elephant numbers have increased from 565 to 1581. The density of elephant has increased to **31 elephants / 1000 Ha**. Common stocking rates in low carrying capacity areas is 1 / 1000Ha and up to 4 / 1000Ha in high carrying capacity areas. Originally Balule carrying capacity was assessed, and it was estimated that we could carry approximately 250 elephants and sustain normal numbers in the other herbivore species. At 1581 we are currently at just over 6 times the recommended number of elephants. The effects of this can be seen across the reserve.

The density of elephants per 1000Ha has evened out between the north and south of the Olifants river. The northern area has 31 elephants per 1000Ha. This compares with 32 in the previous year. This is however significantly higher than previous years where it was as low as 7 per 1000Ha. Apart from the riverine areas the majority of the veld is Olifants rugged veld which does not have high quality grazing. Increased browsing intensity will add to the already extensive tree damage in these areas. Tree impact is clearly visible across the entire reserve with large Marulas almost completely eradicated from the areas south of the river.

The comprehensive tree impact study conducted earlier this year focussed on 10 tree species. The species are a mix between iconic trees and those that are important for sustaining of the browsing populations. This will obviously affect other species that compete for the same resources. Together with the high predator numbers this continuous increase in elephant numbers could be a factor in the overall decline and stabilisation of our other species (browsers & riverine).



Currently elephants account for 76% of the total biomass in BNR and 83% of the mega herbivore biomass. This is clearly not sustainable and will potentially affect the biodiversity on BNR significantly.

Demographics of elephants counted.

	Total	Males (Est)	Females	Calves under 2
Qty	1584	348	1008	228
% of total		22%	64%	14%

Table 5



BALULE
OUTREACH TRUST

News from a former bursary student

The Balule Outreach Trust (BOT) is delighted to report that the students being sponsored at the Southern Cross School are doing very well.

A former pupil and bursary recipient of the school, Leonie Wiltshire, recently commented to John Anderson *“I am currently still studying BEng Civil Engineer at The University of Pretoria and I am going into my 4th year this year (only one more left after this one). The degree is quite challenging, but I knew this when I began, and I am enjoying the challenge.”*

Our Website is back!

BOT is also happy to announce that its website, which has undergone a “facelift” is now up and running again. There is still some updating required which will be done soon. You can find the website here: <https://baluleoutreach.org> Should you have any queries regarding the BOT, please do not hesitate to email the trust on info@baluleoutreach.org

Please make a donation!

The BOT relies on the generosity of our friends, members and users who know how extremely important it is to contribute to the well being and sustainable projects of the surrounding communities. Account details remain unchanged: FNB Account Number: 62336787877 Code: 250017 Please use your name as the reference.



MEMBERS UPDATES

THE WEATHER REPORT

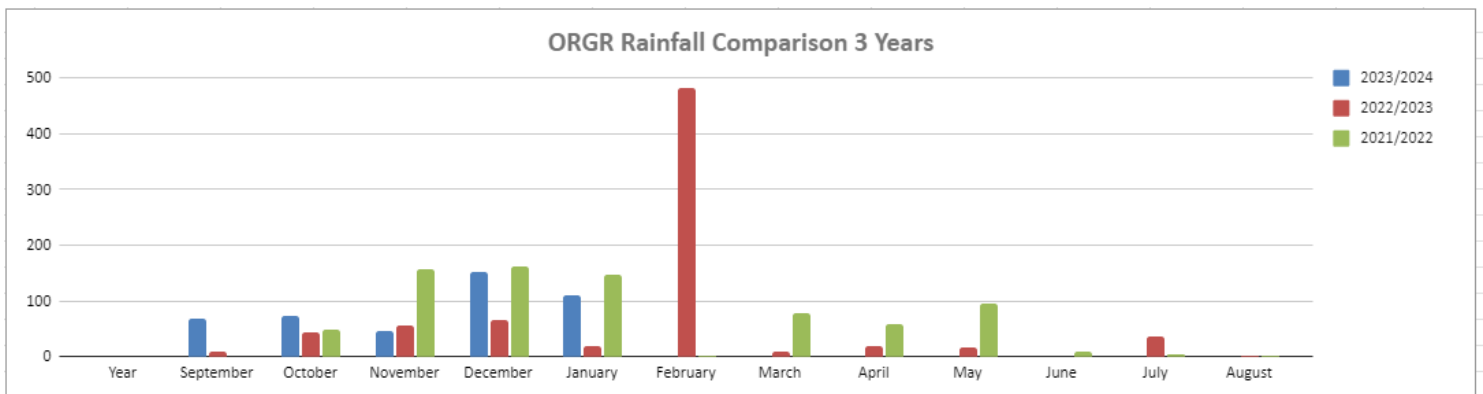
The current weather forecast for the region indicates a prevailing strong El Niño state within the El Niño-Southern Oscillation (ENSO). This El Niño event is anticipated to persist throughout the upcoming 2023/2024 summer, followed by a predicted weakening and transition to ENSO neutral conditions in the subsequent winter.



Typically, ENSO's influence on Southern Africa leads to generally drier and warmer conditions during the summer seasons. According to current forecasts from various seasonal prediction sources, there are heightened chances of below-normal rainfall over the majority of the western regions, while the outlook for rainfall in the eastern parts presents lower probabilities and unclear signals for relevant rainfall categories (below-normal or above-normal).

The South African Weather Service (SAWS) multi-model rainfall forecast indicates a predominantly below-normal rainfall pattern across most of the country during Feb-Mar-Apr (FMA), Mar-Apr-May (MAM), and Apr-May-Jun (AMJ). An exception is noted for some central parts of South Africa during MAM, where enhanced probabilities for above-normal rainfall are predicted. Due to the relatively low probabilities in the eastern regions, caution is advised in relying on the seasonal forecast for planning purposes, and the use of conservative strategies is recommended where feasible. Throughout the forecast period, minimum and maximum temperatures are expected to be predominantly above-normal nationwide.

Looking at our recent local rainfall on the reserve, we received 153.3mm in December and 111.31mm in January, bringing our season total to 453.32mm.

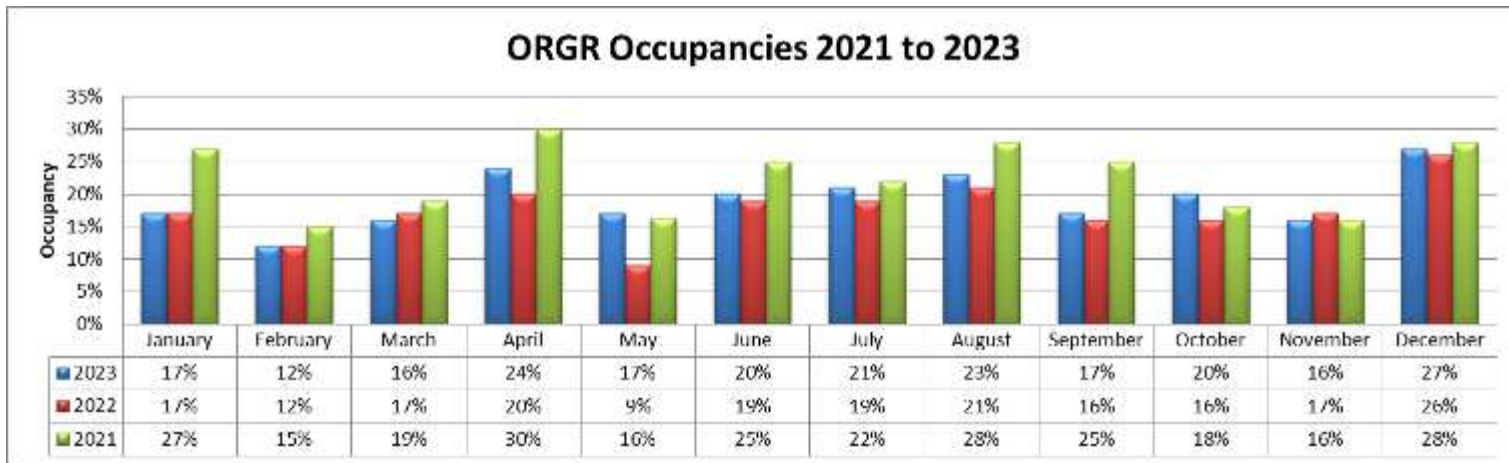


December 2023 Weather Summary -	High	Low	Average	January 2024 Weather Summary -	High	Low	Average
Temperature	39.1 °C	15.2 °C	25.3 °C	Temperature	37.4 °C	17.1 °C	26.0 °C
Dew Point	24.3 °C	10.1 °C	18.8 °C	Dew Point	26.2 °C	13.3 °C	19.7 °C
Humidity	95 %	23 %	70 %	Humidity	97 %	34 %	70 %
Precipitation	153.3 mm	--	--	Precipitation	111.3 mm	--	--
Wind Speed	24.3 km/h	0.0 km/h	5.7 km/h	Wind Speed	24.5 km/h	0.0 km/h	5.2 km/h
Wind Gust	33.0 km/h	--	8.8 km/h	Wind Gust	34.9 km/h	--	8.1 km/h
Wind Direction	--	--	SE	Wind Direction	--	--	SE
Pressure	1,012.43 hPa	995.60 hPa	--	Pressure	1,013.44 hPa	997.56 hPa	--

OCCUPANCIES

In December, Olifants River Game Reserve experienced an average occupancy of 27%, reaching its peak on New Year's Eve with 42 units in residence, while the most tranquil day recorded 12 units. January unfolded, with an average of 19 units in residence and the quieter days revealed the presence of 4 units, while the busiest day saw 37 units on the reserve.

Average Occupancies	
2023	19%
2022	17%
2021	22%
2020	22%
2019	14%



OUR NIGHT SKY IN FEBRUARY

In a nutshell...

Moon

Date	Time	Phase
03/02	01h18	Last Quarter
10/02	00h59	New Moon
16/02	17h00	First Quarter
24/02	14h30	Full Moon



Moon – Earth Relations

Perigee: 358 088 km on 10/02 at 20h52

Apogee: 406 312 km on 25/02 at 16h59

The Night Sky

The stars of Orion are high in the north on February evenings, with blue-white Rigel above and to the left of the three belt stars, and orange-red Betelgeuse below and to the right of them. Below and to the left of Orion is Aldebaran, brightest star in the Bull, with the Pleiades nearby in the NW at the Bull's shoulder. The Pleiades, according to the Namaquas, were the daughters of the sky god. When their husband (Aldebaran) shot his arrow (Orion's sword) at three zebras (Orion's belt), it fell short. He dared not return home because he had killed no game, and he dared not retrieve his arrow because of the fierce lion (Betelgeuse) which sat watching the zebras. There he sits still, shivering in the cold night and suffering thirst and hunger.



To the right of Orion is Procyon, brightest star in the smaller of Orion's two hunting dogs. Directly below (N) of Procyon are the stars of the Twins, with the dim stars of Cancer the Crab just to the right. Among the stars of Cancer is what looks to the eye like a fuzzy glow, but which binoculars show to be a cluster of stars, the 'Beehive'. Directly below Orion is brilliant Capella near the northern horizon, brightest star in the Charioteer. Capella is actually a system of four stars, consisting of a pair of luminous yellow stars and a pair of faint red dwarf stars. Above Orion's feet (he's upside down, as you'd expect for a constellation invented in the northern hemisphere) is the Hare, with Orion's Big Dog above Orion itself and to the right if you're facing north. The Big Dog boasts the brightest star in the night sky, Sirius.

With Sirius nearly overhead, we have Canopus (second brightest star in the night sky) high in the south near the Milky Way. Bright Achernar (Senakane, the 'Little Horn') is below Canopus and to the right for an observer facing south. The Water Snake and the Small Magellanic Cloud are below Achernar and to the left. Among the galaxies separate from our own, the Small Magellanic Cloud is the second nearest, 'only' 200 000 light years away. We see it as a dim glow like a detached piece of the Milky Way — and

we see it as it was 200 000 years ago. This small satellite galaxy of the Milky Way is gradually being torn apart by the tidal forces it encounters each time it passes near our Milky Way's largest satellite galaxy, the Large Magellanic Cloud.

This time of the year is a great time for snakes in the sky. The Small Magellanic Cloud lies partly in the southern Water Snake, while the giant monster Water Serpent is visible in the north. Directly to the right of Achernar are the stars of the Phoenix, with the Toucan directly below. The Toucan includes a particularly beautiful cluster of hundreds of thousands of stars, just visible to the naked eye as a dim fuzzy spot if there is no moon and there are no city lights interfering. This cluster, 47 Tucanae, is nearly 120 light years across, and is roughly 20 000 light years away from us. Of the roughly 100 globular clusters that orbit the centre of our Milky Way galaxy, 47 Tucanae is the second brightest.

The Milky Way runs almost due north and south in our skies in early evening this month, from the N into the SSW. The southern portion is much brighter, running through the constellations of the Poop Deck, the Compass, the Sails and the Keel (all parts of the ancient constellation of the great ship Argo), with Crux and the Centaur near the horizon.

"Like the constellations that adorn the night sky, astrology weaves the cosmic threads of our existence, revealing the intricate tapestry of our souls, where the universe whispers its secrets, and our destinies are written in the celestial language of the stars."

BIG BIRDING DAY

Dear Bird Nerds and Feathered Friends Enthusiasts,

We're thrilled to announce the incredible success of the ORGR Birding Day held on December 22, 2023! Thanks to the participation and enthusiasm of all involved, it was truly a memorable event.

Our participating members did exceptionally well, collectively spotting an impressive total of 126 bird species throughout the 24-hour avian adventure. We extend our heartfelt appreciation and gratitude to each and every one of you who contributed to this fantastic achievement. Your passion for birdwatching and dedication to the event made it a resounding success.



Position	Team Name	Unit	Count
1	On the Money	26	165
2	Stork Raven Mad	ORGR	140
3	Hartman Hooters	49	110
4	Wannabe Birders	14	90
4	The Knightinjails	68	90
5	FIRER'S-NACKERED-NIGHT- JOLLERS	18	83
6	Birdy Banter Brigade	5	79
7	The Queenfishers	62	44
8	Absolute Beginners	66	31
9	The Hatchlings	53	23

All the teams who formed and embraced the spirit of friendly competition, showed a commitment to recording every bird spotted or heard, while adhering to the laid-back rules of the day; and this contributed to the vibrant atmosphere and shared enjoyment of the event.

As promised, the grand prize moment took place at Sunset Plains on December 23 at 6 PM. It was a fitting conclusion to the birding bonanza, where participants gathered to celebrate their achievements.

ESSENTIAL SCORPION STING FIRST RESPONSE SHORT COURSE

Jonathan Leeming, South Africa's leading scorpion expert, has launched a free online course for anyone to do.

“The course has been adapted and summarised from the [Essential Scorpion Sting First Response Book](#), It is based upon the latest science, and is as much about values and beliefs, and our relationship with the environment, as it is about understanding scorpions and scorpion stings. It offers a great overview from which to reduce the chance of being stung by a scorpion, and ensure the best possible outcome should a sting occur in humans or animals. Study the short course content. When you feel like you understand the content enough, take the 20 minute, 50 question assessment. Note that the pass mark for this course is 80%. If you score 80% or more, you will earn yourself a certificate! Take the course here: <https://scorpions.co.za/scorpion-sting-first-response-short-course/>. Books will be available in the ORGR in March 2024.



FAREWEL TO RONALD AND NIC

Ronald Mashabana has been an integral part of the Olifants community since 1988, spreading joy and warmth with his ever-smiling face and unwavering dedication to his work. He has been a familiar presence at the workshop, where his cheerful demeanor and tireless efforts have left an indelible mark on all who have had the pleasure of working alongside him. His commitment to serving our members with kindness and professionalism has been truly exemplary, embodying the values that define our Olifants family.

Ronald's presence will be sorely missed as he embarks on the next chapter of his journey into retirement. While we rejoice in the opportunity for him to enjoy well-deserved rest and relaxation, it is with a heavy heart that we bid him farewell. The memories we have shared and the bonds we have formed will remain etched in our hearts forever. Ronald will be with us until the end of March this year.



Since joining us in 2020, Nic Daly has been an integral part of our Anti-Poaching Unit operation, contributing significantly to its success and leaving an indelible mark on our community.

Nic's dedication, passion, and unwavering commitment to our mission have been truly inspiring. His tireless efforts in safeguarding our reserve and protecting its precious wildlife have not gone unnoticed. Whether patrolling the grounds or coordinating strategies, Nic approached every task with professionalism, determination, and a deep sense of purpose.

Throughout his time with us, Nic has become more than just a colleague; he has become a trusted friend and a pillar of support for our team. His leadership, guidance, and willingness to go above and beyond have enriched our collective experience and strengthened our resolve to uphold the values we hold dear.

While it saddens us to see Nic leave, we understand that he is following his dreams and pursuing new opportunities beyond the confines of our reserve. As he embarks on this new chapter in his career path, we wish him nothing but success, fulfilment, and happiness.



THE FINAL WORD

As we bring the February edition of the Olifants River Game Reserve Newsletter to a close, we reflect on the stories, updates, and moments shared within these pages. From exciting wildlife sightings to community events and conservation efforts, it's clear that our reserve is a vibrant and thriving ecosystem. As we look ahead to the coming months, let us continue to cherish and protect this unique part of the world we call home. We look forward to sharing more news and adventures with you in the future. Until next time, may the beauty and wonder of nature inspire and uplift us all.

Warmest regards!
Nick and the Olifants River Game Reserve Team

