The Reserve and social media have been abuzz recently with sightings of cheetah and rhino being regularly reported. Sightings of cubs and calves are frequent and these special creatures definitely draw the crowds to Rietvlei. Here follows the latest news and updates on some of the wildlife of Rietvlei.

**Cheetahs:** Currently there are six cheetah found on the Reserve; one male, Sanbona, a female, Sahara and another female, Kiara with her three cubs. The cubs, born in November 2016, are all looking healthy and are growing up fast, and Kiara is hunting regularly. They are quite relaxed when seen, boisterous and playful.

As part of the Endangered Wildlife Trust’s Cheetah Metapopulation project, Sahara will be relocated to Malawi in the near future. To read more about this project visit [www.cheetahpopulation.org.za](http://www.cheetahpopulation.org.za).

**Rhino:** The rhino population of Rietvlei is growing steadily. Two new rhino calves were born recently to mothers India and Juliette and they are a sure hit on social media. Ubuntu, son of India was born in January and Victor, son of Juliette in April 2017. Currently the moms and babies are doing well and they are receiving supplementary feeding to sustain them through the winter months.

**Plains Game:** The buffalo herd in Rietvlei currently numbers approximately seventy. There have been quite a few additions of calves recently too. The buffaloes are not spotted regularly, but there have been a few amazing and lucky sightings lately.

**Other Carnivores:** The black-backed jackal population seems to be healthy and these beautiful animals are seen regularly by visitors. Serval have been spotted on occasion in the Reserve and even the rare brown hyena.
The Friends of Rietvlei maintenance committee is dedicated to maintaining and improving Rietvlei’s infrastructure and facilities on an on-going basis. Maintenance is conducted on a weekly basis (Wednesdays) and during work sessions on Saturday every month (as per our annual program). The Friends of Rietvlei committee has to date built five bird hides and one panoramic lookout in the Reserve. At the end of 2016 our goal was to make access to the hides more wheelchair friendly.

Currently, two of the hides have already been converted and upgraded, with the same being planned for the others. Furthermore, we would also like to install support rails in the adjacent toilet facilities. Please note that entry is free to the Reserve for working sessions.

The Friends of Rietvlei maintenance team, who are all volunteers, have converted two bird hides recently to be wheelchair friendly. Both “Finfoot Hide” and “Island View” are accessible to wheelchairs as well as the toilet facilities.

We would like to invite potential sponsors to assist with funds to enable us to continue with this process for all the other bird hides.

Website: www.friendsofrietvlei.org
Facebook: https://www.facebook.com/groups/friendsofrietvlei/
Alien Invasive Plants

*Seen the masses of pink across the Rietvlei Reserve and Gauteng landscapes in summer and thought they were pretty? Or had too many exotic fish in your tank so you released them into the nearest river?*

Introductions of species to ecosystems they did not evolve in have already lead to the extinction of hundreds of species. It is well known that alien invasive plants can rapidly displace native vegetation, which, in the case of the Rietvlei Nature Reserve, leads to a drastic decline of available grazing for wildlife, thus degrading the natural food-web.

**How?** The reproductive and dispersal mechanisms of the these plants are highly efficient and are very strong competitors; able to grow very fast in their new host environment, and are affected by few or no pathogens or herbivores.

What is less well known, and the main cause of concern, is that when present in great numbers, they can modify the nature of the host ecosystem, changing it to suit themselves, and not necessarily the species that were originally present. And this is where the snowball effect of degradation begins.

By eliminating indigenous species and creating a low diversity vegetation cover, the ecosystem becomes less resilient to the effects of extreme climatic events. The original buffering effects of the natural vegetation, such as flood attenuation, is lost. Microhabitats between plants are changed. The high standing biomass of alien invasive plants increases evapotranspiration rates due to larger plant size, greater leaf area, or different root architecture.

**Result:** A reduction of available water for the feeding of streams and groundwater recharge, coupled with larger volumes of drier soil, thus less available soil moisture to indigenous plants. It has been calculated that the infiltration of alien invasive plants in South Africa has led to a loss of at least 4% of total registered water use in the country. The loss of water that should go to our rivers and dams also results in a higher concentration of nutrients and pollutants in water.

The biomass of alien invasive species as well as their different structure (bushland instead of grassland) also leads to different behaviour of fires, which damage indigenous vegetation by destroying the growth-tips and excessively drying out topsoils.

Litter produced by these plants have a different chemical compositions to our vegetation. Their compounds alter soil nutrient levels by negatively influencing the microbial activity and suppressing the ability of indigenous species to flourish. Many of these compounds are leached into rivers, and ultimately lead to more eutrophication (nutrient-overloads) of dams, again leading to blooms of toxic algae and other invasive aquatic plants.

*And the list goes on...*

**Species such as Gums, Pines and Lantana are known for allelopathy:**

By releasing biochemicals from roots and litter they suppress the germination and survival of indigenous plants and kill beneficial soil microbiota. Even worse, such compounds, together with more intense fires, create water-repellent layers in the soil. This causes more soil erosion and more parched soils. More sediment runoff increases the turbidity of streams, decreases pH and increases water temperature and nutrient loads. This negatively affects a host of aquatic organisms while increasing the number of disease-carrying micro-organisms, higher levels of pollutants and toxic heavy metals in our water.
**Alien Invasive Plants cont.**

Worldwide, alien tree species are considered to be among the worst environmental threats. When it comes to eradication, conflicts of interest arise where wildlife is dependent on invasive trees, where native tree cover is low or where the invasive species substantially increases available resources such as nesting sites or nectar. For example, in some areas Eucalyptus trees provide the only suitable nesting sites for African Fish Eagles, or roosting sites for the vulnerable Lesser Kestrel. The appropriate response here would be to tolerate few large specimens in parks and gardens or narrow windows in agricultural areas, but to remove all larger stands especially from protected areas and rivers.

**Where We Need You?**

The responsibility of implementing an alien management programme lies with the management of the Reserve and City Council. The invasion by Pompom Weed and Wild Verbena in the reserve have reached such massive proportions that it is beyond the capacity of Friends of Rietvlei to address. Although we will continue to try and control these plants around hides, our main contribution will be to keep on putting pressure on those responsible to continue the efforts initiated earlier this year. Working for Water assessed the extent of the invasion, in order to commence with chemical eradication programmes before the end of the year, and essentially before all these plants start flowering.

Friends of Rietvlei have started tackling invasions by Wattles and Penny Gum; with two people and the first two tree poppers bought, we managed to pull out an average of 600 – 1000 trees and saplings in about four hours! Therefore we bought more poppers which will be used in the additional work sessions for tackling these invasive trees. We will also continue controlling alien species around the hides, as far as we can, whenever we see them.

**Veterinarian Services**

We have two vets that assist the reserve over and above what is sometimes expected of them, and we would like to make special mention of these two unsung heroes.

Our cat specialist is Dr Peter Caldwell who tends to most of our cheetahs’ needs. Dr Caldwell successfully patched Kiara back together last year and after six months in the Boma, she was ready to go out and hunt again. Kiara has subsequently had three healthy little cubs and all of them are doing very well.

Old Chapel Veterinary Clinic
Tel: 012 3318279

Our rhino specialist is Dr Justin Benade who takes the time just to come and see how they are doing. Last year we found that our most fertile rhino cow known as Ma, had three large abscesses on her body, some as large as a man’s fist. He managed to cut these out, and Ma has since recovered fully and is roaming the plains without discomfort once more.

African Son Veterinary Services
Tel: 076 815 8330

Website: www.friendsofrietvlei.org
Facebook: https://www.facebook.com/groups/friendsofrietvlei/
What is on the line at Rietvlei Dam?

No aerial drones may be used anywhere on the reserve, even if it is to take out your bait. Anyone found flying a drone will be escorted out of the reserve and may face charges. Please do not use drones over any part of the Reserve. If you spot a drone being used at the angling area, please report it immediately.

During the last two months carp have been caught with sizes varying from 18kg to 2kg, a few nice sized catfish with sizes well over 10kg, a couple of yellow fish and a few small bass as well. However, bass fishing is slowing down at the moment due to winter approaching.

Improvements at the Angling Area:

Planting of Trees: More than 60 trees were recently planted at the angling area. Sponsorship was provided by Kings Meat Deli and Willow Feather Farm.

Maintenance: One of the outside water pipes, taps and the potholes on the road at the angling area were fixed by members of Friends of Rietvlei with assistance, cement and premix provided by Express Hardware in Centurion.

Future Improvements: Treatment of the wooden poles and cleaning of the dam at the angling area will begin in May.

Brood Parasites - The Battle to Breed

A brood parasite is a bird which lays its eggs in the nest of another and then abandons it, expecting the host to incubate and rear the chick/s. There are two types of brood parasitism; interspecific, which is between two different species, and intraspecific parasitism, in which a bird lays its egg in the nest of another of the same species.

The southern African sub-region holds 29 parasitic species which includes Cuckoos, Honeyguides, Honeybirds, Indigobirds, Whydahs and Paradise-Whydahs. These make up almost 3% of the region’s species, and about 30% of the total number of inter-specific brood parasites in the world. This is despite Southern Africa accommodating only around 10% of the world’s bird species.

People often express great disdain at the mention or sight of a brood parasite, but the truth is that hosts are often far from defenceless and helpless victims who will inevitably have to raise another bird’s offspring. They, together with their unscrupulous enemies, are locked in a constant reproductive battle in which the parasite loses more regularly than we sometimes think.

At every point during the reproductive process, there are ingenious adaptions of the parasitic species to help increase the chance of success, and equally advanced strategies employed by hosts to foil any such attempts.
Brood Parasites - The Battle to Breed cont.

It all begins even before any egg is laid, where the challenge faced by the parasite is to gain access to the nest...

In order to achieve its mission, it may employ distraction techniques, where the male bird gains the attention of the host while the female enters the nest and deposits her egg. Another strategy is to look like a harmless species which the host shares its habitat with, a ploy used by the Cuckoo Finch where the female resembles a female Bishop or Quelea. This has tricked even the most experienced birders, and is so effective that real bishops are often victims of serious attacks. Vocal mimicry is another means of deception and is used by Indigobirds, where they learn the call of its host during its development. Many Cuckoos look rather like Sparrowhawks or Goshawks in flight, and it has been proposed that this is another mechanism to deter hosts from engaging with them when trying to access a nest.

Host species counter at this stage of the battle by both passive and active means. Passive strategies include building nests with inaccessible entrances or by nesting in colonies. Active attacks can be extremely violent and cases of intruders being killed have been recorded. This is especially a risk for smaller species, such as the lesser honeyguide, which have been crushed by the heavy and notched beaks of angry Black-Collared Barbets.

If the female parasite has successfully entered the nest and laid an egg, the next risk she faces is the detection of the foreign egg within the clutch. Some hosts are able to determine that the number of eggs in the nest has increased, and so the female parasite may remove host eggs from the nest to balance the addition of her own. Many birds’ eggs are pigmented, and may be decorated by beautiful and complex patterns of blotches, lines and swirls. These markings serve as a sort of “water-mark” for the host species and make it more difficult for the parasite to counterfeit! Despite this, they can copy these to an incredible degree.

If the host determines that there is a foreign egg, it may react by throwing it out of the nest, or even abandoning the entire nest with its own clutch in the process. Therefore some parasites lay eggs in more than one host nest.

If the egg survives the scrutiny, a race to outcompete its brood commences. The brood parasite typically has shorter incubation periods than those of their hosts, allowing them to hatch first and get a head start. When hatched, the chick in many cases, is ruthless and will roll the host eggs and chicks out of the nest or even kill them. Once the chick has eliminated any competition, their fate is better secured and will now benefit from being the sole recipient of all food brought to the nest. Although the success rate of brood parasites varies significantly, often only 50% of eggs ever result in a chick fledging.

The offensive and defensive interactions of parasites and hosts represent some of the most fascinating areas of bird ethology. Their methods continue to evolve, each one adapting to any new strategy developed by the other and each constantly searching for something to give them the edge.
The Friends of Rietvlei consists only of volunteers and are therefore largely dependent on sponsors. Although we are very proud of our nearly 600 members, which by itself represents a large vote of confidence from the community, we keep the membership fee low and can add only so much value to the Reserve.

With the assistance from sponsors and donations we can however add so much more value. We are fortunate to have a wide variety of sponsors, ranging from schools to shopping centres to private companies and corporates. We take pride in the good relationships we have established amongst each other and are extremely grateful for every rand being donated.

However, we would like to highlight our main sponsor, “The Success Academy Rhino Trust” and thank Mr Charl du Toit and his team. They have been extremely supportive, especially with the management, feeding program and veterinary services of the rhino population in Rietvlei Nature Reserve which runs into large amounts of money every year.

We do, however, salute all sponsors and anyone is always welcome to inspect our financials to confirm that every cent being received is being spent to add value on Rietvlei Nature Reserve.

The Friends of Rietvlei have been supported by Imperial Select and Foton with a vehicle being sponsored for our work. Unfortunately, they recently had to retract their vehicle sponsorship due to financial constraints.

We urgently need a double-cab 4x4 to conduct maintenance and patrols on the Reserve.

If you can assist us with a sponsorship, or know of anyone who can, please contact Terry Finney on terry@friendsofrietvlei.org

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Facebook: https://www.facebook.com/groups/friendsofrietvlei/
The AGM took place in March 2017 and the following committee members have been confirmed:

Kobus Engelbrecht - Chairman
Jan de Wagenaar - Secretary
Gerda de Wagenaar - Events
James Drowley - Technical / Maintenance
Mieke Strydom - Finances
Terry Finney - Social Media / Security
Mariane Strohbach - Botanist
Thinus Koch - Historical Advisor

Since the AGM however, there have been some changes; Jan and Gerda de Wagenaar resigned and we wish them all the best for the future and their planned travels. We would like to congratulate them on a job well done over the last few years. They have both added much needed value and will be missed. The job of secretary has thereafter largely been taken over by Terry Finney and we thank him for that.

In order to add more value to our committee we have recently appointed two new co-opted members; Elize Loubser, who is a qualified Zoologist, and will amongst other things be responsible for the planning, administration and execution of the hikes and Davie Malan, who shall be responsible mainly for all the happenings in the angling area.

Donate to the Friends of Rietvlei

Currently, funds are needed for:
- Cheetah collar fund
- Rhino dehorning and feed throughout the winter
- Maintenance and improvement of hides
- Upgrading of hides, walkways & toilets to be wheelchair-friendly
- General maintenance & upgrades

If you are interested in joining the Wednesday group or monthly working sessions to assist with maintenance and upgrades, or want to contribute through sponsorship please get in touch with us at rietvlei@mailbox.co.za for further details.

Editorial Team

Editor - Lauren Engelbrecht
Content - Elize Loubser
Contributors - Terry Finney, Kobus Engelbrecht, Cameron Meyer, Davie Malan & Marianne Strohbach

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