



KORSMAN CONSERVANCY NEWSLETTER

SUMMER 2022

Aquatic Biodiversity Project: Part 1, Fish

Years in the planning, this project finally became reality when the Rotary Club of Benoni Aurora sponsored it through an international environmental grant.

Although the project was delayed for a couple of months due to our water quality issues last year, the water had recovered by January to enable us to go ahead.

The idea is to improve aquatic biodiversity: first reduce invasive carp by netting, then increase numbers of indigenous fish (Southern Mouthbrooder) and so attract a wider variety of fish-eating bird species.



Preparation First, paperwork. We obtained permits to net and release from GDARD. After a lot of exercise jumping through all the hoops we satisfied them eventually.



The chosen release area is away from sewerage sources and fringed by vegetation. This offers the fish protection.



We installed underwater fences (blue lines on the map) to exclude carp from the release area and give the indigenous fish space where they were not outcompeted.

The fences go beneath the surface to allow waterfowl to swim over and the mesh can be pushed down if the water level drops.



Just before the release, Ekurhuleni started pumping out Pan water at short notice (see page 3).

Although the outlet is 300m away from the release area, we built a 'safety screen' to fit in the channel leading to the sump.

Release Day 29 January – Photos by David Dooley



Casper Kruger's team netted out carp in the release area. Rotarians and members waded in to pull the net.

The fish were also supplied by Casper Kruger, of Optimum Fisheries at Hartebeespoort.



There were only a few carp in the net, a sign that our site selection was good.

Several indigenous Southern Mouthbrooder were also discovered in the net and returned to the water.



2000 fingerlings were released into their new home.



Water, water everywhere

Heavy storms in the space of a few weeks raised the Pan level by 65cm which flooded the grassland, the pathway and the road in places. Nobody can remember the Pan level being so high.



21 January The rock island, normally full of birds, is almost completely underwater leaving no space to perch.



By efforts of our Ward Councillor Mary Goby, Ekurhuleni replaced the water evacuation pump which was removed from Westdene North pump station by contractors in 2019 and never returned. When the pump is running, the water level drops 10mm per day.

Scientific Sandbags

To filter the sewerage that flows in at the culvert opposite 76 (at the footbridge) we installed sandbags of iron shavings mixed into sand and gravel.

Iron is a powerful element for capturing phosphate, the ingredient in washing powder that wreaks havoc with the ecosystem. The iron shavings were donated by Prima Industrial.

Ironically (no pun intended) the sandbags worked in reverse after the pan level rose, reducing the outward flooding of the road at this site.



Christmas 2022 came early when an electric motor was finally installed to make the second sewerage pump operational. This has already reduced the frequency of sewerage spills.



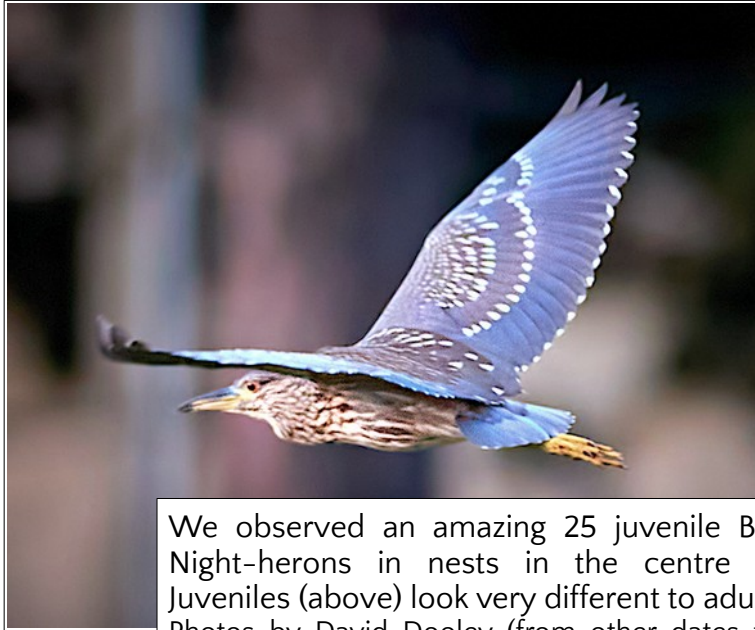
Summer CWAC Waterbird Count

Conducted in conjunction with the East Rand Bird Club.

The high water level impacted our waterbird count and we recorded low numbers. The waterbirds may have been hidden in the flooded grassland, or have temporarily moved to other locations with more dry land.



Linda Stracker and I counted the central reed patch by canoe and paddled all the way to the Divot gate.



We observed an amazing 25 juvenile Black-capped Night-herons in nests in the centre reed patch. Juveniles (above) look very different to adults (below). Photos by David Dooley (from other dates than the bird count).

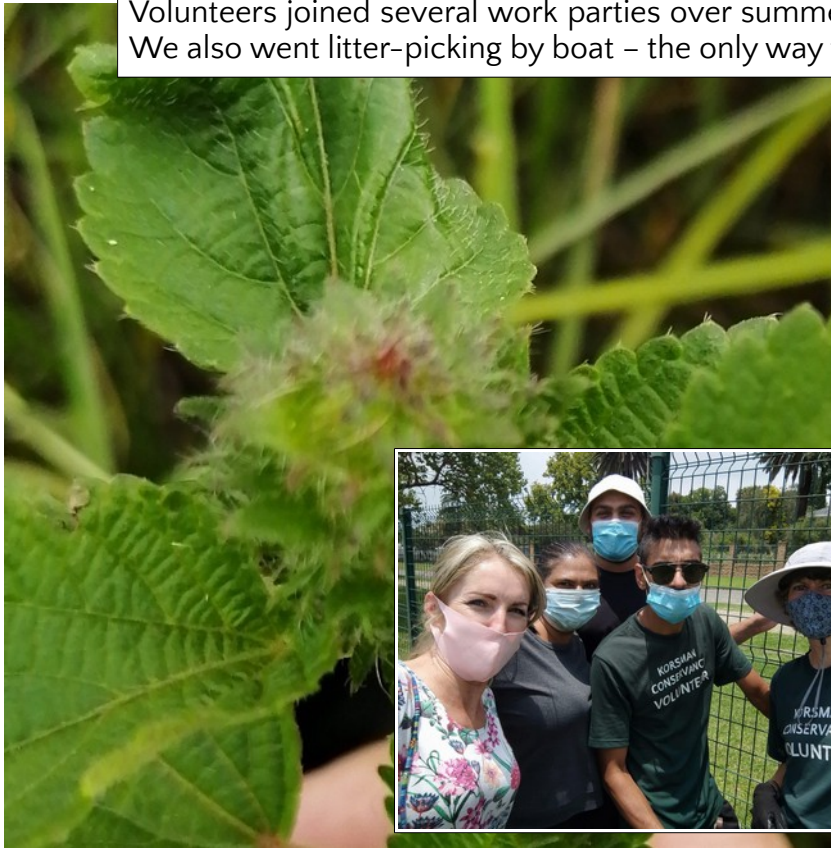


A fun non-bird sighting was this family of three Slender mongooses



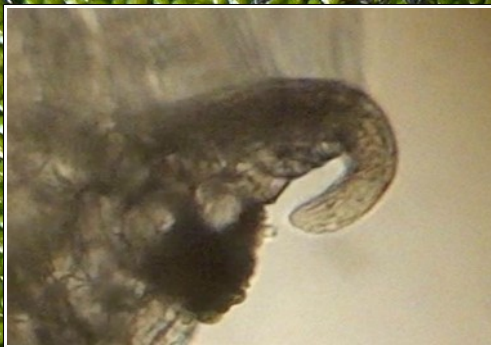
This juvenile Goliath heron caught an oversize fish along the path to the bird hide. After 20 minutes of unsuccessfully trying to swallow it, the Goli abandoned the fish.

Volunteers joined several work parties over summer to pull out *Acalypha* weed. We also went litter-picking by boat – the only way to access the flooded parts.



The tiny things

These 1mm green floating *Wolffia arrhiza* plants are the smallest flowering plants on earth and part of a fascinating microscopic ecosystem.



A microscopic *Stenostomum* flatworm emerges from a pore on the plant surface.

Wolffia is used in some countries as a high-protein food, but does the protein come from the accompanying worms? ;-)



A whirling colony of dozens of *Sinatherina semibullata* rotifers, joined at their feet. They are all female and carrying eggs.

Historic fact There is only one other full South African record of these: from 1935, at a pan just 11km from Korsman, south of the present-day Carnival City.