



A Goliath Heron with a freshly caught carp

Coping with the challenge of conservation in suburbia THE KORSMAN CONSERVANCY

What do an airline captain, an analytical chemist, an IT specialist and a Reverend have in common? These four women run Korsman Conservancy, an organisation attracting attention in Benoni and beyond. Jane Trembath (the pilot and chairperson), Catherine Marques (the chemist and treasurer), Tracy Boggis (the IT expert and infrastructure chief), and Rev Debbie van de Laar (the secretary), all share passionate dedication to care for the 50 hectare Korsman Bird Sanctuary, a wetland in the heart of a Benoni suburb, the focus of this urban conservancy.

Historically known as Westdene Pan, the area was fenced and declared a bird park in the 1950s. The project was initiated by town councillor, Nic Korsman, who felt the birds needed protection as new suburbs steadily expanded around it. Once the area was fenced, game were introduced as an attraction. Although popular with the public, game kept in a limited area was not practical. Some donated animals such as zebra were unsuitable,

Jan de Beer

and the same donor was upset when Benoni Council turned down his offer of a pair of giraffes. After many problems, including poaching, dogs killing the animals and hoof rot from high water levels, the game was finally removed in 1996.

Nowadays, the Sanctuary is home to just birds and many invertebrates, some of these are quite special. Flocks of Greater and Lesser Flamingo regularly visit the pan, and Goliath Herons have taken up residence. There are presently two breeding pairs, unusual in an urban context and considering that they normally defend large territories. This may be partly due to the abundance of carp, so much so that there is no competition for food. The original breeding pair have raised an average of two chicks per year, with the largest successful brood in 2018 of three chicks that reached independence.

Korsman Conservancy was established in 2010, following decades of other volunteer groups caring for the Sanctuary. But it was when Jane Trembath became Chairperson in 2014, that the Conservancy really 'took off'. The biggest challenges facing the Sanctuary were massive infestations of invasive alien vegetation, and an overgrowth of reeds taking over the water and encroaching on the grassland. Another problem was fading interest in the Conservancy, with membership (and with it, funds) slowly dropping since it was established.



The Korsman committee members

Some of the invertebrates are bio-indicators and testament to the clean environment that the Conservancy has worked so hard to ensure. The Red-listed Rare Marsh Sylph Butterfly *Metisella meninx* a wetland habitat specialist, and twenty recorded species of Odonata (dragonflies and damselflies) flutter and dart around, in contrast to some other East Rand pans devoid of life.

Jane tackled the invasive vegetation first, with a steep learning curve identifying the species and best practise in removing them. Techniques and tools were adapted to suit the conditions, such as slashing dense stands of annual weeds to prevent seeding. Their successful 'sharp spades' are ladies spades, cut to to a point, which enables faster, easier weeding with less disturbance to the soil.

Some Category 1b species have been almost completely eradicated, and the rest are responding to management.

Reeds and bulrushes threatened to overwhelm the Sanctuary. In some places, reeds had encroached so far into the grassland that they had breached the fence and grew on the verge. The glimpses of open water were getting smaller and smaller. If interesting birds came to the Sanctuary, one would never have known, because they were invisible behind the reeds.

Eventually, the Conservancy persuaded the Metro to conduct high-pressure spraying in the accessible areas. After the reeds died back and a Conservancy worker slashed them with a brush cutter, one could see the water again! The community's support sprang to life with visible results, and since then Conservancy membership has quadrupled.

After the initial success of Ekurhuleni's herbicide spraying, a year passed with no help. The Conservancy took charge of the situation and devised a technique where a worker kitted out in chest waders slashed reeds in water with a brush cutter and sprayed the regrowth.

A serendipitous discovery of an eco-friendly management technique happened when the water was low one year, and a normally deep patch was reachable on foot. After the patch was cut, rain covered the cut stumps which drowned the plant. The cutting and flooding technique is timed for before the first rains, but is only suitable for deep water patches where the birds don't build nests. Closer to the shore, reeds must be cut in winter.

The next leap forward was when Tracy designed and personally built a set of portable pontoons out of recycled materials, that workers could place over reeds to cut them in deeper water. To date, three of the nine hectares of reeds in the water have been removed, and all those in the grassland. The Conservancy is now experimenting with burning isolated sections in the dead of winter. Although they will regrow, burning removes buildup of organic matter that could cause sedimentation, eutrophication of the water, and threaten the sustainability of the wetland.

As with any urban wetland, the entire catchment's litter gets washed in the storm water inlets. Tracy's litter fences (repurposed pool fencing) catches plenty, but more slips through. The community takes part in regular pickups, and the 'D&D' (Dirty and Dangerous) events, where participants regularly have to be dragged out of thick mud, are inexplicably popular.

The most popular annual volunteer event is 'The Burn'. Jane started a rotational ecological burning programme in 2015. Despite the challenges of burning in an urban environment, it has been a great success and played a huge role in rehabilitating the grassland. The key is careful preparation of firebreaks and date selection. Jane obsessively monitors the wind and weather forecasts for weeks to pick the date.

Korsman has a relationship with some local schools. A new project in 2019 was inviting schools to build insect hotels for a less attractive part of the Sanctuary. The hotels are educational and add visual interest. School groups use Korsman to perform obligatory community service, but the pupils are not always there voluntarily, and if phones were left at the gate, more weeds would no doubt be pulled.

Since there are many harder and more extensive jobs that can't be accomplished by volunteers, Korsman raises most of its funds from membership fees for workers and equipment to maintain the Sanctuary.



Ecological burn

Jane has become a keen citizen scientist. She spends many hours inside, and while pulling a stray weed or picking up litter, often discovers interesting creatures which she photographs and works to identify. Jane once got the mutters at a disposable nappy washed in via a storm water inlet, but underneath it on the soil found an alien Collembola, previously unrecorded in South Africa, a new distribution record for a Talitrid landhopper and a beetle that is still unidentified by experts at the SA National Collection of Insects.

Jane records her Korsman observations on iNaturalist, but unless a beetle is well known it does not always get identified. While SAA was still flying, Jane operated regular flights to London and visited the Natural History Museum's Coleoptera Collection there, armed with photographs to identify species.

Unfortunately, little hoppy creatures are not the only new records being set in the Sanctuary.



Reed cutting using portable pontoons

Invasive species also seem to like the pan. One annual weed, a South American *Acalypha* species, spreads so fast that SANBI's Early Warning and Rapid Response team have placed it on their emerging weeds list, even though Korsman is the only place it has been recorded in South Africa. Volunteers gather regularly in summer work parties to pull it out before it seeds.

Another emerging invasive species is the Black Swans. Again, Korsman seemed to be on the 'bleeding edge' with four birds (the highest swan population in countrywide CWAC counts). Jane approached the Gauteng Department of Agriculture and Rural Development (GDARD) for help in removing the big birds, native to Western Australia. This project had to be carefully managed because the swans were popular with the public,

unaware of their invasive potential. "Oh, but they are so beautiful, how can just a few birds matter?" was a common plea.

Because this was a 'first' removal project, Jane and the avian unit jointly developed a technique of placing a temporary fence around the nest and caught incubating birds one by one. The birds were destined for Pretoria Zoo. And the eggs? They rejoined the ecosystem after being eaten by the pan's nest-robbing water mongoose!

The less fun part of running the Conservancy is the never-ending interaction with City of Ekurhuleni, in trying to get the municipality to fulfil its obligations. Jane has adapted the life skills she learnt to succeed in a challenging male-dominated environment in the air for dealing with Metro departments. Fixing some problems needs a lot of persistence. "I don't think Ekurhuleni realised who they were dealing with, and that I never give up!" says Jane. Over many years, other community members had reported long-standing sewerage and water problems to Ekurhuleni without success, but Jane actually managed to get them fixed.

An urban Conservancy requires keeping the balance between the community and the ecological needs of the Sanctuary. Since the 1960s, every bird hide in the Sanctuary met a fiery end for various reasons, so the Conservancy solved it creatively by building indestructible raised viewing berms on the verge of the pan which offer a clear view over the fence.

Korsman Conservancy's work is being recognised widely with other communities regularly contacting the Conservancy for advice in managing their own environmental problems. Nationally, the Korsman Conservancy has been honoured through the awards of a SANParks Kudu award in 2018 and an Ecologic Eco-community Silver award in 2019.

Benoni, and the 145 bird species that have been identified at the pan in the past decade, owe a huge gratitude to the Conservancy for the protection of an ecological treasure that was particularly appreciated in 2020 when Covid-19 forced residents to appreciate and savour wildlife in their own city. 🌍

For more information

Korsman Conservancy

www.korsmanconservancy.com