JULY – SEPTEMBER 2013 JACOBUS JOHANNES RETIEF TABLE BAY NATURE RESERVE QUARTERLY REPORT FOR THE MILNERTON AREA CITY OF CAPE TOWN: BIODIVERSITY MANAGEMENT All photographs by author, unless otherwise stated.





Figure 1. Aerial view of Table Bay Nature Reserve over the Diep River (photo: Bruce Sutherland).

	CONTENTS	page
1	AREA MANAGER'S SECTION	2
2	HIGHLIGHTS AND CHALLENGES	7
3	BIODIVERSITY MANAGEMENT	10
4	NATURE CONSERVATION	12
5	WATER MANAGEMENT	15
6	FIRE MANAGEMENT	17
7	COMPLIANCE MANAGEMENT	17
8	PEOPLE AND CONSERVATION	18
9	HUMAN RESOURCE MANAGEMENT	23
10	<u>VISITORS</u>	24
11	INFRASTRUCTURE MAINTENANCE	27
12	FINANCIAL MANAGEMENT	27



Figure 2. Map of the Table Bay Nature Reserve.

L AREA MANAGER'S SECTION

- **1.1 This quarterly report** summarises the activities of the Biodiversity Management Branch in the Milnerton Area, specifically in and around the Table Bay Nature Reserve (TBNR) for the period from 1 July to 30 September 2013. This report is written in such a way that stakeholders and role-players may refer to it for information purposes, but does it not contain all the official internal reporting information.
- 1.2 Main headlines in the local media this quarter focussed on flooding and storm incidents and associated pollution, the problem of "vagrancy", possible leachate pollution in the Diep River, incidents involving animals, including a zebra and a caracal, and wildlife photography.
- **1.2.1 Flooding and storm incidents and associated pollution** received some attention in the local media due to exceptionally high rainfall and surface runoff this winter. Some areas where flooding was visible in and around the Table Bay Nature Reserve included the Diep River at Blaauwberg and Otto du Plessis Drive bridges, the Milnerton Golf Club, the Milnerton Aquatic Club, and the Milnerton Lagoon.



Figure 3. Article in the local press about floods and storm damage.

Figure 4. Article in the local press about floods and storm damage.

The Table Bay Nature Reserve lies in the Diep River floodplain and consists of a large wetland complex. Due to the lack of planning information in the previous century, much of the urban infrastructure of Milnerton and Table View around the Reserve presently lies within the various flood zones on the river. Roads and residential developments will be exposed to flooding from time to time.

The City of Cape Town now has detailed information and maps of flood zones which can help residents to plan for flooding and take suitable precautions to protect their properties.



Figure 5. Article in the local press about floods and storm damage.



Figure 6. Article in the local press about floods and storm damage.

Floods and storm damage often change the face of the Diep River estuary at the Milnerton Lagoon as well as the Table Bay coastline. The mouth of the estuary changes as sand is washed in and out of the estuary.

The urban environment unfortunately receives vast amounts of litter through the summer season which accumulates in road drainage gullies and storm water canals. This litter is washed into the River, wetlands and estuary every winter, creating a massive impact on our environment.



Figure 8. Article in the local press about floods and storm damage.

Beach clean-ups and beach cleaning teams are trying to remove as much litter as possible from the beaches. Various NGO groups, schools, residents, Solid Waste teams, and Working for the Coast teams are working to improve our beaches, but the ultimate sustainable solution to littering is to stop it at the source. All citizens of Cape Town are responsible to stop littering and to work towards a litter free City.

Every person who as haver dropped a bottle top, a crisp packet, or a piece of paper in the road is basically responsible for the littering of our wetlands, rivers and coastline. Too many pedestrians, motorists, and public transport passengers still throw litter out of vehicles, buses and train windows. For littering to decrease, this behaviour must change in Cape Town.

The impact of litter on our environment, ecosystems, and tourist attractions is immense and cannot be quantified even by the costs of clean-ups. The City receives thousands of complaints about littering from residents, but it is every one in Cape Town's responsibility to stop littering, and not just the municipality's responsibility to keep cleaning up.

If people stop littering, the City can direct money to other essential requirements.



Figure 7. Article in the local press about floods and storm damage.



Figure 9. Article in the local press about floods and storm damage.



xy the rocknopper penguin and SANCLUB education officer kingan lasep.

PHOTO: FRANCOIS LOUV

Ocean litter a killer

The Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) hosted their annual beach cleanup event for Mandela Day at Lagoon Beach in Milnerton.

In stormy Cape Town weather, a 150strong crowd joined the event and dedicated their 67 minutes of volunteering by collecting rubbish and pollution on this prominent Cape Town beach.

Rifqah Taliep (SANCCOB's education officer) opened the event with a short talk on the dangers of garbage to seabirds. As a seabird hospital, SANCCOB saves seabirds 395 days a year and has treated over 95 000 seabirds since being established in 1968 in Table View.

Plastic litter and items like discarded fishing gear, bags, ropes, straws and caps pose a real threat to seabirds. Over the years, SANCCOB has admitted countless birds that have been entangled by rope, injuried by sharp objects or have ingested plastic materials. Most of the litter on our beaches is in fact not from ships but from land-based sources.

SANCOB's message on the day was that everyone should be conscious of the health of our seabirds and oceans and to dispose of their litter in a responsible manner.

of their litter in a responsible manner.
Coincidentally, the beach cleanup team
discovered three abandoned Egyptian goslings at three separate locations along the
beach. Luckily, the three goslings were admitted to SANCCOB and are currently undergoing rehabilitation.

At the close of the event, participants had a chance to meet two of SANCCOB's ambassador penguins, "Rocky the Rockhopper" penguin and "180" the African penguin.

Figure 10. SANCCOB involved in beach clean-ups.

1.2.2 The problem of "vagrancy", displaced people, and illegal occupations affects the Table Bay Nature Reserve in various locations. Notable areas include underneath both ends of the Wooden Bridge, as well as areas in Zoarvlei and next to the river behind the Killarney Depot.

Nature Reserve staff have spent several days this quarter working with Metro Police, Anti-Land Invasion, and the Displaced People's unit to clear away illegal structures. Various articles appeared in the press. Many of the displaced people refuse to leave the Nature Reserve land and simply rebuild structures once they were broken down.

To a certain extent the problem stems from open access to household waste in the traditional grid-style street networks. People take advantage of access to waste in wheelie bins that are left unattended in the streets.

Stubborn vagrants back

NORÉ BAKKES



Figure 11. Article in the local press about the problem of vagrancy.

Vagrancy 'often promoted by residents'

There is a solution to vagrancy according to TLC and Table View Community Police Forum (CPF) Sector 3

Most people have heard what it would take to cure the community of the growing cancer of vagrancy, but they refuse to accept it or simply adhere to it.

Says CPF chairperson, Trevor Nisbet: "The problem lies with us, the residents. We support them. We give them food and throw away stuff of value instead of maybe recycling it. These street people have identified can make money out of it. We feel sorry for them and give them food or money. We

Nisbet and TLC representatives once again highlighted this concern at the well-attended CPF meeting that was held on Mandela Day, Bernie Kent (social worker) and Ricardo

Joseph (field worker), both of Table View's TLC, addressed those who attended the meeting on Thursday.

As a community, Table View residents have been grappling with the question of what to do with the increasing numbers of displaced people living on the streets.

Nisbet says it is first important to identify these people and then try to help them.
"There are three types of people living on ately need help. They are often drug or alco-hol addicts. Then you get those who raid our refuse hins looking for food or something to ell. Finally you get those who are criminals and identifying targets in the neighbour-hood TLC and other non-profit organisa-tions can help those who fall into group one or two," he explains.

After the identification process, residents, the CPF or Table View Neighbourhood Watch could contact TLC, who in turn will send out field or social workers to help the displaced person to get their lives back on

"Residents can help with the identifica-

we know where street people sleep regularly. One of these problem areas is near the water alides. It used to be known as the 'baby-drop', where mothers could 'drop-off' their babies to be looked af-ter. It had to closed because of all the vagrants, because mothers would be too afraid to leave their babies there where vagrants

Nisbet concludes: "Instead of just moaning about these vagrants, we need to take re-

sponsibility."
"Instead of giving to the person on the street we should give to TLC or other organisations who could better their lives. Give responsibly!"

Figure 12. Article in the local press about the problem of vagrancy.

1.2.3 The Diep River's water quality is of major concern to the Nature Reserve. The floodplain is prone to various sources of pollution, Vissershok landfill site being one of them. Monthly water samples in the Catchment area help to monitor water quality trends in the Diep River.

City denies leachate in Diep River

ANDRÉ BAKKES

According to an anonymous member of a Residents' Monitoring Committee (RMC), thousands of litres of leachate might have contaminated Diep River since 1 July.

However, the Department of Water Affairs and Forestry (DWAF) categorically denies this claim, however.

The RMC member told TygerBurger that a contractor who has been removing the leachate from the site for the last 15 years stopped working on site at the end of June.

Leachate is liquid that extracts solutes from other matter as it passes through it. In an environmental sense, leachate most com monly refers to water acquiring properties from the refuse that it contacts.

In other words, it is produced when water comes into contact with waste - particularcomes into contact with waste – particularly household waste – in a landfill.

The RMC member elaborates: "On average the contractor would supply three 30 000

litre tankers daily to transport the leachate off the site and these vehicles would average

four to five loads each day of the week." At the time of contacting TygerBurger on 23 August, the RMC member said that authorities have still not assigned any extra ve-hicles to remove the leachate.

He adds: "According to my calculations, from 1 July up till date (23 August), we would have transported in excess of 16 million litres of leachate offsite to treatment facilities. What has happened to this excess? How much has run into the stormwater and hence into the Diep River?"

On 22 July the contractor apparently saw a leachate pond overflowing into the storm collection dam, which eventually runs into Diep River.

DWAF poured cold water on the RMC member's claim when they stated that leach-ate did overflow into the stormwater pond, but that the stormwater pond is designed to receive the overflow in the event of an emer-

There was apparently a lot of water that the pond had to accommodate on the day of the incident and no leachate escaped into the environment.

Insofar as the possibility of leachate polluting Diep River, DWAF assures the public that the City of Cape Town has put measures in place to address the management of the

achate dams.

DWAF investigated the situation in Vissershok when they received the complaint on 15 August and inspected the site again yes-

They concluded by stating that the only concern they had was that a contractor to re-move the leachate wasn't appointed time-ously by the City of Cape Town.

Once water comes into contact with waste it is known as leachate. It is claimed that thousands of litres of leachate might have contaminated Diep River since July, but the Department of Water Affairs and Forestry denies this.



Figure 13. Article in the local press about possible leachate pollution in the Diep River.

1.2.4 Human-animal interactions are inevitable in an urban / natural interface, such as around Table Bay Nature Reserve.

Some animals are potentially dangerous and can cause harm if approached incorrectly. Animals do not know boundaries and are often not impeded by fences.

We are proud that animals, including predators, still roam free in our Nature Reserve. It is however important to know what to do when an animal has strayed outside the bounds of the Nature Reserve into private property.

Most animals (small antelope, otters, birds, frogs, tortoises) must be left in peace to move back into the Nature Reserve in their own time.

Only very dangerous animals will be relocated by Nature Reserve staff at request. Call your closest nature reserve office or the SPCA in case a dangerous animal is posing a threat to you.

Do not handle animals on your own. Under no circumstances may anybody kill any wild animal. Call trained professional staff.

Spring time is snake time

With the cold wet winter behind us the spring brings with it a new season of the circle of life. Reptiles such as snakes are coming out of hibernation to hunt for a much-needed spring meal.

much-needed spring meal.

Snakes are an important natural balance
in our environment controlling the vermin
rodents, and other disease caring pests. A
snake's diet varies from species to species
such as rats, mice, birds, moles, slugs,
snails or frogs, etc.

Snakes are attracted into built up areas
due to the abundance of their food severe.

due to the abundance of their food source. Humans unintentionally create anake-friendly gardens due to unkempt or overgrown gardens containing discarded build-ing material, rubble or compost. It in turn is a suitable habitat for those Little pests like rats, mice and exotic birds. Remember snakes are attracted to neglected areas for food and to avoid human confrontation. There is no real way of keeping snakes off your property, but if you keep your grass

cut short, trees well trimmed and clean up all your building rubble, just to mention a few, then there is less likelihood for snakes to reside on your property. In short keep your garden tidy. Very, very few snake spe-cies can be considered a threat to humans, as most do not have venom glands. Snakes only defend themselves against interfer-ore, and never states.

only detend themselves against interference and never attack.

Killing a snake is nothing to be proud of as you are dealing with an animal that has no arms, fingers, feet, legs, eyelids and a long list of disadvantages over other animals.

Let's not

Let's not succumb to ignorance by de-Late not succumb to ignorance by de-stroying what we fear, but rather learn more about snakes, their behaviour and why they are important cohabitants and why we should look out for them.

I for educational awareness takes, demos and training please contactShaun on 082 532 5033 or

MacAdderbite@yahoo.com.



A Cape Cobra basking on a rock off the DoordeKraal dam (Bellville) after the rain this last

Figure 14. Article in the local press about snakes.

Brave rescue fails for rooikat

ANDRÉ BAKKES @andrebakkes

When the rusty-coloured caracal feline opened her eyes, the pain subsided for a moment and was replaced by surprise.

The caracal (rooikat) was lying on the back seat of a Mercedes.

Within seconds she was doing her best "don't-you-dare" impression when a person tried to open the door.

This seemed to work, because that face contorted with fear.

She can remember crossing the N7 near Melkbosstrand... feeling an unbearable pain shoot through her leg and then passing out.

Two people were peering through the window this time. She hisses and spits. By the time the feline was darted by the SPCA the inside of the car had lost the

Battle of Claw and Seat. The story begins with a Canal Walk businessman driving from Yzerfontein on the N7.

Unfortunately, he hit a caracal on his way towards Cape Town and was faced with a dilemma - should he drive on or try to save the unconscious cat?

He chose the latter.

The man loaded the cat into his car on the back seat and raced to Hakuna Matata Veterinary Clinic in Bloubergstrand.

Once he arrived he left one of the windows slightly open and went in to inform Dr Carike van Loggerenberg of the new patient

Much to everyone's shock the feline awoke from her slumber while he was

Says Van Loggerenberg: "We informed the SPCA and had to wait for them to arrive and dart her. Her back right leg was broken. This kind of injury requires that



The caracal's close encounter with a Mercedes was his last.

she stays immobilised during aftercare, so the only thing the SPCA could do was to put her down. It was very sad, but one must look at the bigger picture." Cape of Good Hope SPCA's wildlife unit

manager Brett Glasby says they had to dart the animal through the gap in the window. "She was a wild animal and very defensive. There was an extra element of danger because the animal was injured," he explains.

Both Van Loggerenberg and Glasby say that the driver showed compassion to try to help the animal, but that he didn't go about it in the right way

Glasby says it was lucky the caracal

didn't wake up while he was driving.

"We really appreciate what the gentleman did. Not many people would do what he did, but it would have been a very dangerous situation had the animal woke up while he was on the N7

The wild cat could also have woken up while he put it in the car. While we appreciate what he did, it is better to get someone who is trained and able to do the handling," says Glasby.

According to him one can save SPCA's number on one's phone for quick access or one could phone the City of Cape Town's 107-number, who in turn could no-

Figure 15. Article in the local press about a caracal that was killed on the road.

1.2.5 Local photography hobbyists have recorded some remarkable sightings of animals in the Nature Reserve, and many of these were published in the local press.

Several wildlife photographers visit this nature reserve on a regular basis. Frieda and Jan Prinsloo showcase some of their best images from around the Rietvlei Section on their website at http://www.savoels.za.net/Rietvlei%20Nature%20 Reserve%20Cape%20Town/.

A gallery of images is also available on the Friends of Rietvlei's informative website at http://www.friendsofrietvlei.co.za/gallery.html.

Cape clawless otters are a regular occurrence, but to see more than one at the same time is quite unusual. Donovan Gaynor captured three in one frame at the Rietylei Section.

Visitors are encouraged to report interesting sightings and to send their best pictures to the Nature Reserve Management.



Parklands couple Frieda and Jan Prinsloo are nature photography enthusiasts and regular visitors to the Rietvlei Nature Reserve where they captured these images from one of the hides of a Cape Clawless Otter catching a fish.



Figure 16. Local wildlife photography published in the press.

Eyes too big for his belly

An otter ventured into Rietviel on Monday morning to have its pick of the juiciest fish. This particular otter managed to catch a meal bigger than itself. It took the otter more than an hour to fill up and swim lazily back home, A Parklands resident, Frieda Prinsloo, was on the scene to capture the feast on her camera



Figure 17. Local wildlife photography published in the press.



Figure 18. Three Cape clawless otters in one frame (photo: Donovan Gaynor).

A stray Plains Zebra mare was reported by various witnesses from Killarney and the Diep River Section. This sparked much debate and rumours about the origin of the animal.

CapeNature was contacted to advise the City about what to do. They advised that the animal must be captured and relocated to a registered herd at a game reserve.

This decision was made due to the fact that the Zebra would not be able to integrate into any herd in the Table Bay Nature Reserve, and that the conditions are not suitable.

Mr Stephen Mitchel (game capture operator) and Dr Jan Hovers (veterinarian) were permitted by CapeNature to assist the City with the capture operation.

The Zebra was immobilised with a dart gun at the Milnerton Riding Club next to the Diep River after it took up residence in the horse stables area.

During the immobilisation a blood sample was also taken to analyze for African Horse Sickness. The zebra was then loaded into a transport box and moved to a location determined CapeNature.

The blood samples were sent to the State Veterinarian at Elsenbura and Onderstepoort. The results for the test came back negative, meaning that the Zebra was not a carrier of African Horse Sickness.

To date this Nature Reserve has not learned what the origin of the animal was. The capture operation however gave the staff and students very valuable experience in the handling and stransport of game species. Various articles in the local press followed the story with much interest.





A young female Plains Zebra of unknown origin showed up at the Table Bay Nature Reserve's Diep River Section. Later in the week, the zebra entered the Milnerton Riding Club's horse stable area. Biodiversity Management staff from the City of Cape Town's Environmental Resource Management Department, assisted by game capture operator Stephen Mitchell, and veterinarian Dr Jan Hovers, captured the animal using a tranquiliser dart. The zebra will now be integrated into a herd at a game reserve that will be specified by CapeNature. A blood sample will be tested for African Horse Sickness. From left are: Koos Retief, Biodiversity Area Manager, Milnerton, Dr Hovers (with beige cap), Mr Mitchell and assistant Jan Raats.

Figure 19. Article in the local press about a stray Zebra capture.

Stripes spot

ANDRÉ BAKKES

hable View is the setting of a brand new animation, Madagascar & Escape from Du Noon.

In this movie, Marty the Zebra, was cap-tured by animal poachers, held up in Du

Noon before it finally escaped on Sunday

evening.

Marty nearly got hit by a vehicle on the carner of Illianuwherg and Koeberg reads much to the surprise of the driver and a secu-

rity guard.

Fortunately he side stepped the car with a smooth elippety-clop evasive maneeuvre and took a right turn up likasuwherg Road – tewards Madagascar.

On his way there he noticed a pleasant looking viei on his right and the absence of

cars made it look pretty inviting.

What he's up to now is a mystery, but it will all be revealed in Madagascar & One Too

Many Zebru Crossings.

Table View Neighbourhood Watch (TVN), the local police, as well as the currently unknown driver and security guard, recken the above is based on a true story.

There is therefore a real possibility that Marty is now chilling somewhere in Table

TVN chairperson, Ryno Roberts, elaborvv chairperson, Kyno Roberts, elaborates: "We found it pretty amusting when we heard that there may be a zebra running around in Table View. Two witnesses saw it, but even though TvVn and the police responded in full force, we could not find it."

Spokesperson of Table View police, Lt Elizabeth Mauru, tried hard to stop laughting when Tygerflarger made an engulry. She says they could only find the zelsza stripes. Munro says the possibility exists that it was a prank phone call, but she later admitted that there were quite a few witnesses to the outrageous tale.

Roberts first pitched the twist in the script that the when middle have been adde tracked.

that the solve might have been side tracked by the viel next to Blanuwherg Road.

He continues: "Just a few woeks ago I heard that some farms near Durbanville have been targeted and robbed of their ani-

"It is perfectly possible that sumeons stole a zebra, took it to Du Noon and then it es-caped down Keeberg Road in the direction

The "incident" was reported on TVN's Fa-rebook page and there was quite a response. It seems that everyone has a pun or two ready for this most untilledy of sightings.

Purery

One wrote: "On his way to Madagascar!"
Another wrote: "Ah, I wish I had known
this! In the US a few months ago I was asked
what the most dangerous animal I had ever
seen in our street was."
"All I could say was a tortoise, but a zebra
would have been better."
If anyone apots the "alleged" zebra they
can contact Tuble View Police Station on
our statum.

021 553 8233.

And when you go rebra-spotting, take your camera and send a photo to websityper-burger to Ja.

Figure 20. Article in the local press about a stray Zebra capture.

Roaming Matilda safe

ANDRÉ BAKKES

he horses at Milnerton Riding Club were in for a smelly surprise last week when a striped relative decided to drop in and eat their feed and drink their water Just before the horses became really fed-up with the globetrotting zebra TygerBurg-er reported on last week ("Stripes Spotted", it was immobilised and transported to Rustenburg Farm in Somerset West. It was originally suspected by the Table

View Neighbourhood Watch that the zebra

might have escaped from Du Noon animal thieves, but it has since come to light that it became "bored with life" on a farm along the N7 and decided to explore the world be youd the fence.

Matilda

Pictional claims that "Marty the Zebra" starred in Madagascar 5: Escape from Du Noor were therefore thoroughly debunked.

It was also discovered that Marty is, in fact, a Matilda (for the lack of a better name).

One grain of truth in last week's article is

that Matilda became overwhelmed by the sights and sounds of the "Big City", and af-ter it was nearly run over on the corner of Koeberg and Blaauwerg roads it fled into the Disp River viol.

Koos Retief, biodiversity area manager for Milnerton, sums up the merry Matilda's journey from there when he says: "She lived next to the river in the Diep River section of the Table Bay Nature Reserve for a few days. We first noticed her on the west side of the Killarney Race Track. She then came into the riding club after smelling horses

and probably feeling lonely."

Stressed out

A safe haven for Matilda was unpleasant for the harses, however. The riding club's yard manager, Audrey Hanson, elaborates: "The horses were very stressed out! They were off the fond and ran around the whole place, clearly upset. Even in the stables, they were shaken and nerv-ous, running around in circles. They didn't like the smell of the animal."

To page 2.

Figure 21. Article in the local press about a stray Zebra capture.



Matilda the Zebra (in the back) couldn't keep her eyes off Turbo the horse. He didn't mind the attention, but she still smelled a bit funny.

PHOTO: ANDRÉ BAKKES

If Matilda had eyebrows she would have lifted one of them now.

Hanson continues: "The horses knew something's there, but they didn't know what it was! The zebra didn't want to be away from the horses though. When the horses were taken to the stables at 15:00 she would run around and was probably thinking: 'Where have my friends gone?' In the morning it was quite funny, because she was running up and down and we're thinking: 'Ah! Dressage! That's beautiful!' In fact, the horses do beautiful dressage when they see the zebra - tails up and snorting, like 'Look

Hanson says she wishes they could keep the zebra. Matilda now feels loved and lowers her eyebrow (which she doesn't have).

Hanson muses that the only horse who could stand the zebra was Turbo.

Matilda probably thought there sparks between her and the stallion.

Turbo probably reckoned he could just about stand the smell without completely freaking out.

Retief concludes: "There are two types of zebras in South Africa. The berg zebra, an indigenous zebra to the Western Cape, and the plains zebra, which is from the Serengeti and the Lowveld.

"This one is a plains zebra."

They immobilised and transported Matilda on Thursday afternoon.

Everything proceeded without a hitch, so it would be appropriate to end this fairytale saga with the words: "And she lived happily ever after.'



Biodiversity area manager Koos Retief looks on while authorities sedate 'Matilda the Zebra' the PHOTO: CITY OF CAPE TOWN

Figure 22. Article in the local press about a stray Zebra capture.

2.2 An article about the controlled burning at Robben Island was published in the <u>July/August 2013 issue of the CONTACT magazine</u>. The burning took place from 22-26/04/2013, but subsequently more Nature Reserve staff went over to the island to continue burning operations.

Robben Island burn a first

City fire-fighters and environmental staff helped out with the removal of alien vegetation from this world heritage site, with a week-long series of controlled burns – the first time this has been done there.

Ire and Rescue Services and conservators from the Environmental Resource Management Department's Biodiversity Management Branch (ERMD: BMB) managed a pioneering removal and burn of invasive and alien plants on Robben Island in April.

Robben Island Is a world heritage site, and falls under the auspices of the South African Heritage Resources Agency (SAHRA). This "living museum" was once a leper colony, and had military installations during two world wars, but is best known for the imprisonment of former President Nelson Mandela. Apart from this rich history, the island is also a haven for colonies of African penguins and swift terns, as well as many other species.

However, invasive and alien plants have started to encroach. In particular, rooikrans and blue gum trees had been introduced and had slowly invaded, causing a loss of biodiversity as well as increasing the fire risk.

A disposal problem

Robben Island has no fire station and limited fire-fighting resources, and cannot be easily reached by City fire-fighters and their equipment under normal circumstances. The City helped the Island's environmental manager, Sabelo Madlala, in assessing this fire risk.

The Public Works Department funded the cutting of firebreaks around the island's village precinct, and the removal of invasive plants.

This project was labour-intensive and timeconsuming, and the cut material from alien trees is very expensive to dispose of. It was not cost-effective to take large quantities of branches and stumps off the island, and it was also not feasible to add this vegetation to a landfill. Controlled burning was therefore used, to remove this biomass.

Full-time and volunteer fire-fighters and conservation staff spent a week on the island, and were housed in a part of the former jail, now converted into a dormitory.

The work entailed building large stockpiles of hundreds of tons of dry vegetation from cleared areas, and then burning them.

Under the leadership of fire boss Willie Olivier, the crews ensured that the burn stacks were well tended and burned.

All round It was a very successful exercise, with Fire and Rescue Service and Environmen-



Alien eliminators: Involved in the controlled burns on Robben Island (pictured right) were. from left Bongani Mnisi (ERMD: BMR, Regional Manager: North), Ian Schnetler (Chief Fire Officer), Willie Olivier Fire and Rescue Divisional Commander), Sabelo Madlala (Environmental Manager: Robben Island). Jacques Kuyler (ERMD: BMR, Area Manager: Blaauwberg), Julia Wood (ERMD Manager: Biodiversity Management), Willem Modman (Fire and Rescue Platoon Commander), and Koos Retief (ERMD: BMB: Area Manager: Milnerton).



tal Resource Management staff members working together as a combined unit.

This partnership between the City and Robben Island, and the use of fire as a management tool, is a first in the Island's history, and is paving the way for improved and continued management of invasive and alien plants. The City hopes to invest more specialist input to improve and safeguard the biodiversity and natural habitat of the Island.

The City has started to focus on preventative and proactive fire management to reduce fire risks and flammable vegetation fuel loads. This approach reduces the threat of uncontrolled wildfires and the costs involved in managing them.

Throughout the city during the past fire season, controlled brush-pile burning and ecological vegetation fires were used to good effect, with no damage to property.

Figure 23. Article about controlled burning at Robben Island in the **CONTACT magazine of July/August 2013**.

BIODIVERSITY MANAGEMENT

Biodiversity Database

Species presence and absence in the Table Bay Nature Reserve is recorded in four different data collection boundaries. The below Table 1 is a compilation of this data of present records for the Nature Reserve as a whole, meaning that all four data collection boundaries were merged.

Not all species occur in all the management sections. Nature Reserve staff undertake active searching to confirm the presence of certain species that have not been recorded for a long time. Since the previous quarter, one additional amphibian, two additional mammals, seven additional birds, and three additional plants were recorded. There is however still many species that needs to be recorded for the Nature Reserve. See Appendix 1 for a list of species present in the Nature Reserve.

CLASS	PRESENT	NOT SEEN	PRESUMED LOST	TOTAL
Amphibians	<u>7</u>	2	2	11
Mammals	<u>30</u>	0	1	31
Fish	<u>13</u>	1	0	14
Reptiles	<u>20</u>	11	1	32
Birds	<u>185</u>	9	16	210
Plants	<u>258</u>	60	115	433
TOTALS	514	83	135	732



Figure 24. Skaapsteker snake at Rietvlei Section.



Figure 26. Cape clawless otter tracks.



Figure 25. Cape grysbok at Milnerton Lagoon Section.



Figure 27. Mole snake in the Diep River Section.

3.2 Protected Natural Environment mapping

It was noticed that the City's newly added mapping layer of Protected Natural Environments (PNEs) did not include the Rietvlei PNE for some reason. Only the Cape Peninsula and Lourens River PNEs were indicated on the mapping. Koos Retief then consulted with Amalia Stipinovich to add the Rietvlei PNE boundary. This was done by plotting the coordinates recorded in the original Nature Area proclamation of 3 August 1984 in the Government Gazette No 9345 on the GIS mapping.

A boundary was then attached from the coordinates to the present Erven of the nature reserve. The new mapping layer now indicates three PNEs, including Rietvlei.

The Table Bay Nature Reserve completely incorporates the old Rietvlei PNE boundary.



Figure 28. previous mapping layer of PNEs (Cape Peninsula and Lourens River) which did not indicate the Rietvlei PNE.



Figure 29. The Rietvlei PNE subsequently added to the new mapping layer.

3.3 Annual Reserve Site Visit

The Branch Manager's annual reserve site visit to Table Bay Nature Reserve took place on 18/09/2013.

The site visit was attended by Julia Wood (Branch Manager), Roy Ernstzen (Regional Manager: East), Adele Pretorius (Monitoring and Evaluation Coordinator), Owen Wittridge (Area Manager: Helderberg), and Natanya Dreyer (Communication and Marketing Coordinator).

The site visit focused on the previous year's major achievements as well as management challenges.

Various areas were inspected in the field, including the Rietvlei boardwalks, Diep River alien clearing, the Milnerton Lagoon, Wave's Edge, and the Milnerton Racecourse Section.



Figure 30. Annual reserve site visit.

4 NATURE CONSERVATION

4.1 Flora Management

4.1.1 Invasive vegetation management during this quarter focussed on cutting and burning large areas of **Port Jacksons in the Diep River Section**. Two contractors funded by Working for Wetlands were used for this purpose. A permit was obtained to burn the stockpiles of brush material and all the burning was completed before the end of September 2013.

A number of **Blue-gum trees were ring-barked in the Diep River floodplain**. Blue-gum trees are very invasive and must be removed from conservation areas. They also deplete groundwater from the soil during summer months, impacting negatively on indigenous vegetation.

Control of Water hyacinth took place by means of manual removal coupled with biological control agents in the Milnerton Ridge canal. The floods during this winter helped to a certain extent to move much of the remaining Water hyacinth out to sea where it would die off.

Control of kikuyu grass continued with herbicide application in selected areas during this quarter. In winter, the treatment of kikuyu is temporarily stopped due to higher water levels and many indigenous plants that flower. A "kikuyu control and restoration plan" is presently being drafted.

Follow-up clearing was conducting and hand-pulling of several species of alien annual weeds was done at selected areas in the Nature Reserve. **Detailed monthly reports** are sent to the Alien Species Unit.



Figure 31. Release of biological control agents on Water hyacinth.



Figure 32. Ring-barking of Blue-gum trees in Diep River Section (photo: Christopher Singo).



Figure 33. Stack-burning of Port Jackson brush piles in Diep River Section (photo: Christopher Singo).

4.1.2 The National Vegetation Type mapping that is presently in use by the City, in the area of Rietvlei, does not have enough detail. The new South African National Biodiversity Institute (SANBI) map indicates more definition as well as an additional type called "Freshwater Lakes." Koos Retief and Dr Patricia Holmes consulted about this discrepancy and agreed to recommend that the City should use the new SANBI map from now on.

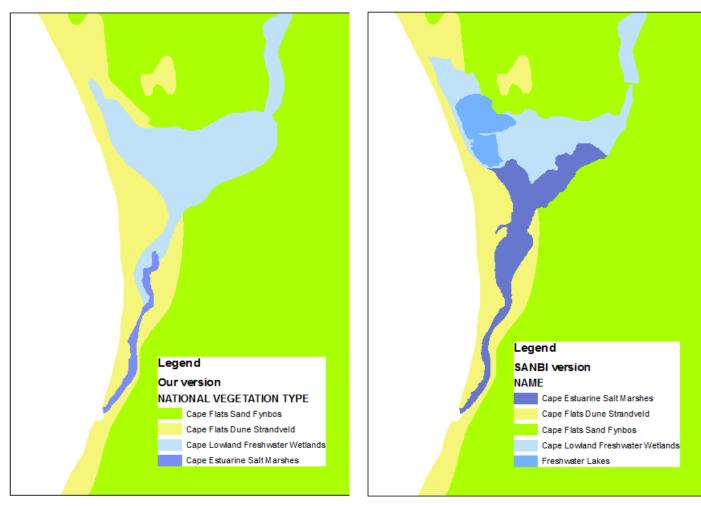


Figure 34. Presentation vegetation map used by the City.

Figure 35. Proposed vegetation map to by used by the City.

4.1.3 The Bird Hide Block used to consist only of alien Rooikrans trees. After about 12 years of rehabilitation, the area is now looking like a diverse natural habitat to be proud of.



Figure 36. the rehabilitated Bird Hide Block (phot: Bruce Sutherland).

4.2 Fauna Management

4.2.1 Monitoring of Wildlife: Game counts and sightings

An integrated bird census was conducted at TBNR on 9/09/2013. The census was done by the Nature Reserve staff, North Region staff, and volunteers, covering 11 water area sections, including Potsdam Waste Water Treatment Works (WWTW) as well as a terrestrial (bush) bird survey.

The waterbirds numbered a total of 2,156 birds from 41 species, including 18 Great crested grebe, 10 Little grebe, 9 White pelican, 36 Whitebreasted cormorant, 23 Reed cormorant, 21 African darter, 12 Grey heron, 1 Blackheaded heron, 5 Purple heron, 7 Little egret, 8 Yellowbilled egret, 1 Cattle egret, 38 Sacred ibis, 5 Glossy ibis, 3 Hadeda ibis, 107 Greater flamingo, 42 Lesser flamingo, 2 Whitefaced duck, 175 Egyptian goose, Yellowbilled duck, 18 Cape teal, 17 Redbilled teal, 61 Cape shoveller, 3 Spurwinged goose, 3 African fish eagle, 1 African marsh harrier, 16 Common moorhen, 521 Redknobbed coot, 11 African black oystercatcher, 42 Blacksmith lapwing, 3 Marsh sandpiper, 19 Blackwinged stilt, 4 Water thicknee, 128 Kelp gull, 641 Hartlaub's gull, 5 Caspian tern, 1 Swift tern, 34 Common tern, 3 Pied kingfisher, 31 Cape wagtail, and 7 Mallard.

Total	Diep River	North Viel	South Viei	Central Pan	Dolphin Beach	Minerton Channel	Legoon North	Lagoon South	Zoarviei North	Zoarviei South	Potsdam WWTW
2156		300	304	403	90	240	191	210	63	33	214
18	1000	1	13	2	2		100	10000	100	100	
10		117	1	0.10	3					- 3-	3.
9	100			.9	-		100	200		-	-
36	1	- 7	13	1		100	2	12			
23	4	5	7	1		1	3				-
	3	3		2			2	-			-
	_			-		1-	-				
		-	173			-					-
		1	2								
			-			4		2			
			1	1		7			1		
	-		-	-			7.1		-		
	0	16	3:			2				· t	6
		***	_		1	-	-				40.
		1			-						
	-	-	7.	14		65					21
	6		- Con-			100					3
	0			20							2
	9	. 8	-10	82		9	35	10			12
								40		2	13
		-	46	-		2.4	-				9
	7		5	1.		10	2				2
	t	. 12	7		1				8		9
		-0	10	- 12			-		-		7
						1					
	2	-	1								
	3				- 4	5				- 4	2
		199		62					12		10
	64	1-7-6	102	0.5	20	30		111	14	4.5	10
	1	- 4	10		3	11	7				9
	4	-	-2		- 2	11					7
				16		12					
	1			-0		42			_		3
		62	1	36				25			-
	11				40	16			-45	- 2	104
	1	24			-46	10	11.7	110	4.0	-	V.Ord
			1						-		
	-			-				7.4			_
	-		+				1				-
	6	7		+	1	3				- 6	4
	3	. /	- 2	-	1	4	2			3	2
	2156 18 10 9	Total 6 108 18 10 9 9 36 1 1 1 1 1 5 2 7 1 1 8 5 1 1 1 1 3 3 2 1 1 1 1 1 3 3 2 1 1 1 1 1	Total 6 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total 0	2156 108 300 304 403 18	2156 108 300 304 403 90 18	Total	Total 0 2 9 0 0 2 40 191 18 1 13 2 2 10 1 2 3 9 36 1 7 13 1 2 2 23 4 5 7 1 1 3 21 1 3 3 11 2 2 12 1 3 3 11 2 2 12 1 3 3 7 1 1 1 1	Total Ö Z Ö Ö Z Ä Z Ä Z Ä Z Ä Z Ä Z Ä Z Ä Z Ä Z Ä Z J <td>Total 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td> <td>Total 3 2 9 0 8 2 3 4 2 12 12 3 3 4 2 12<</td>	Total 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Total 3 2 9 0 8 2 3 4 2 12 12 3 3 4 2 12<

Figure 37. Waterbird census results from 9/09/2013.

Additional species that were seen included Cape grysbok, Black-shouldered kite, Karoo prinia, Helmeted guineafowl, Cape spurfowl, Little rush warbler, Orange-throated longclaw, Lesser swamp warbler, Redwing starling, Greater striped swallow, White-throated swallow, Common starling, Levaillant's cisticola, Brown-throated martin, Pied crow, Pintailed whydah, Red bishop, and Cape canary.

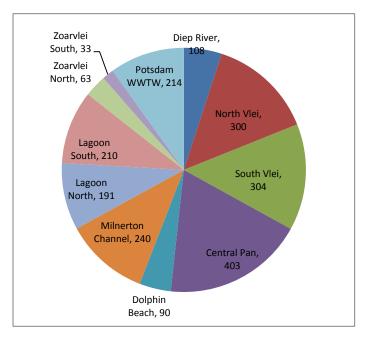


Figure 38. Pie chart of numbers of birds per section.

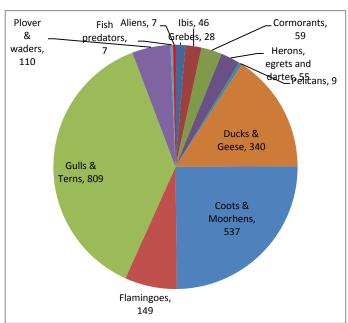


Figure 39. Pie chart of different birds numbers.

5 WATER MANAGEMENT

5.1 Water quality

Water quality was monitored on three occasions at 15 monitoring points in the Table Bay Nature Reserve. The monitoring dates were 30/07, 27/08, and 30/09/2013. The samples are analysed by the Athlone Scientific Services Department and reports are received on a monthly basis.

5.2 Rainfall measurements

Rainfall at Rietvlei this quarter was exceptionally high, especially in August.

RIETVLEI RAINFALL: U	Jpdated	on 30/09/2	013												
	Ave	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
January	10.531		16.0	57.9	3.5	8.0	16.0	1.0	1.5	4.0	4.00	1.00	10.00	5.00	9.00
February	6.8		2.0	10.0	6.0	0.9	4.0	7.0	19.5	6.0	9.00	5.00	0.00	0.00	19.00
March	7.4462		0.0	10.1	32.2	7.0	14.5	4.0	15.0	4.0	0.00	1.00	7.00	0.00	2.00
April	33.136	5.0	18.9	29.9	10.9	79.5	69.5	27.2	45.5	10.0	32.50	9.00	20.00	56.00	50
May	49.386	26.1	48.7	38.6	22.2	2.3	54.1	104.0	42.5	44.0	94.00	84.00	34.00	64.00	33
June	67.689	51.6	36.4	62.8	13.1	66.8	83.3	25.5	127.7	67.0	83.00	71.00	93.00	57.00	109.5
July	68.575	46.1	175.7	69.5	27.3	65.8	38.0	64.2	96.0	116.0	57.00	38.00	13.00	72.00	81.5
August	73.961	24.3	108.7	66.9	81.1	45.5	74.0	45.0	86.0	68.5	79.00	30.00	54.00	67.00	205.5
September	34.132	49.3	61.5	19.5	53.8	17.8	30.0	12.0	34.0	4.0	47.00	12.00	33.00	39.00	65
October	24.904	5.3	31.2	33.7	25.3	119.0	9.8	20.5	22.0	2.0	29.00	0.00	10.00	16.00	
November	20.046	8.8	22.5	13.2	2.8	3.0	9.8	31.0	30.0	46.0	62.50	12.00	8.00	11.00	
December	10.431	2.5	10.5	20.1	15.5	6.5	0.0	4.5	22.0	19.0	7.00	10.00	18.00	0.00	
TOTAL	407.0	219.0	532.1	432.2	293.7	421.9	402.9	345.9	541.7	390.5	504.0	273.0	300.0	387.0	574.5
NB: Open Spaces = No	DATA.	RED indica	ates ins	ufficie	nt / inc	omplet	e DATA	١.							

Figure 40. Rainfall data recorded at Rietvlei main entrance.

This quarter totalled an above-average 352mm, bringing the total for 2013 to 574.5mm so far.

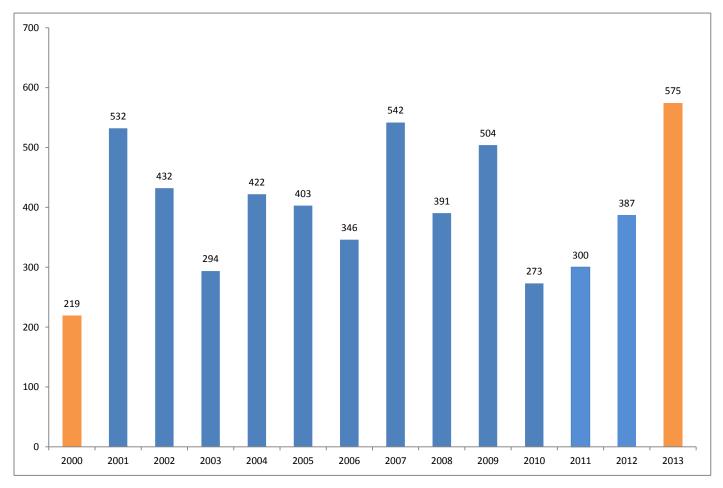


Figure 41. Annual total rainfall at Rietvlei since 2000.

August had exceptionally high rainfall of 205,5mm which is 132 mm more than the average for August.

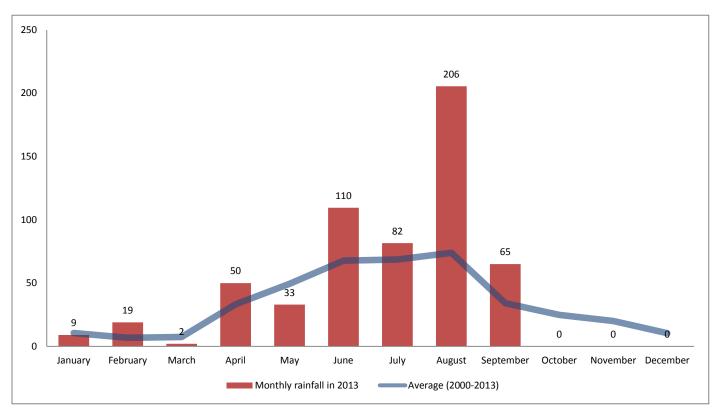


Figure 42. Monthly rainfall vs the average rainfall pattern.

The accumulation of rainfall far exceeded the average accumulation rate.

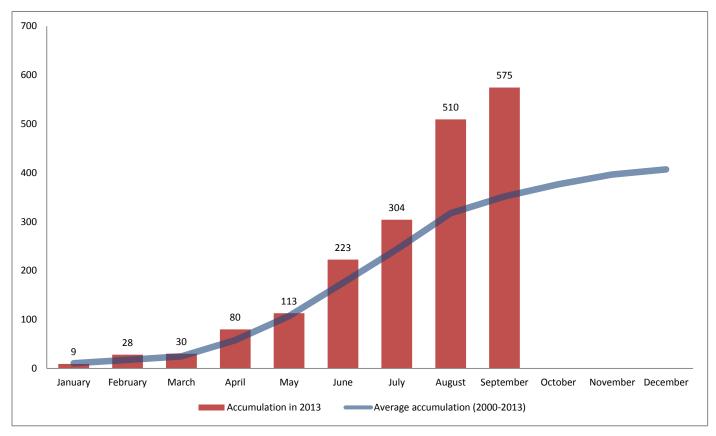


Figure 43. Monthly accumulation of rainfall vs the average accumulation pattern.

6 FIRE MANAGEMENT

The Table Bay Nature Reserve team conducted controlled burning of Port Jackson brush piles at the **Diep River Section** on various dates during this quarter. The work was hampered by flooding in the area, but most of the brush material was burned nonetheless.

The Nature Reserve team also assisted **Robben Island** with further controlled burning during the week of 16-20/09/2013.

7 COMPLIANCE MANAGEMENT

7.1 Displaced people and illegal structures were removed from various locations, including Zoarvlei Section and the Diep River next to the Killarney Depot. Most of the people that inhabit these structures have no regard for the rule of law and they repeatedly build structures in new locations despite warnings and criminal charges.

The lady in the picture below (seen here with a panga in her hand) already has at least two assault charges against her for violent intimidation of law enforcement and peace officers as well as City staff.



Figure 44. Illegal structure at Killarney Depot.



Figure 45. Illegal structure at Killarney Depot.

7.2 Illegal occupations underneath the Wooden Bridge are also a serious problem due to the fact that they are not visible to the general public.

Despite having been removed various times, and even washed away during the winter floods, the occupants repeatedly build their structures under the bridge again.

The Nature Reserve has requested the Heritage Department to consider redesigning the underside of the bridge during possible future renovation of the bridge structure.

Presently the bridge is not safe for pedestrians, and is therefore closed off, but the illegal occupants pay no heed to the barricades.



Figure 46. Illegal occupations underneath the Wooden Bridge.

Overnighting, littering, fires, and illegal structures are not allowed in any public space or Nature Reserve. Residents are requested to report any illegal structures, fires, and overnighting of people in the Nature Reserve to the Reserve Management office.

8 PEOPLE AND CONSERVATION

- The staff from the Table Bay Nature Reserve was involved in no less that 30 official meetings.
- The office and reserve facilities were used for no less than 20 events and 588 person days of benefit to people.
- Environmental education programmes reached no less than 381 people over 6 events.

8.1 Stakeholder Engagement (external meetings)

TBNR staff attended no less than 18 external stakeholder meetings during this quarter.

Table 2. External stakeholder meetings relating to the TBNR.

AREA	DATE	MEETING	PURPOSE		
TBNR	01/07/2013	Milnerton Aquatic Club regarding Stand-Up Paddling at Rietvlei	Planning and		
	18/07/2013	Milnerton Aquatic Club access management issues	feedback		
	25/07/2013	Rietvlei Management Working Group			
	02/08/2013	Zoarvlei Management Advisory Committee			
	07/08/2013	Milnerton Racecourse future management			
	20/08/2013	Subcouncil 1: Activity Day meeting			
	28/08/2013 Milnerton Racecourse future management				
	30/08/2013 Milnerton Racecourse EMC				
	09/09/2013 Milnerton Racecourse future management				
	10/09/2013	Rietvlei Boma ceiling project site meeting			
		Draft Water Area By-law workshop: Milnerton Canoe Club			
	11/09/2013	Conservancy tank project site meeting			
		Milnerton South to Paarden Eiland LASDF			
		Draft Water Area By-law workshop: Milnerton Aquatic Club			
	12/09/2013	Friends of Rietvlei 25 year commemoration			
	16/09/2013	Subcouncil 16 presentation of Julia Wood's annual report			
	17/09/2013	Draft Water Area By-law workshop: Friends of Rietvlei			
	20/09/2013	Solar geyser installation project site meeting			

8.2 Stakeholder Engagement (internal meetings)

TBNR staff attended no less than nine internal stakeholder meetings during this quarter.

Table 3. Internal stakeholder meetings relating to the TBNR.

AREA	DATE	MEETING	PURPOSE
TBNR	01/07/2013	Conservation Compliance challenges and priorities	Planning
	09/07/2013	Counselling meeting with a staff member	
	12/07/2013	Counselling meeting with a staff member	
	16/07/2013	GIS regarding mapping of Edge Effects	
	30/07/2013	Supply Chain Management: Projects over R200,000	
	30/08/2013	Rob Slater regarding monitoring programmes	
	09/09/2013	Milnerton South to Paarden Eiland LASDF	
	18/09/2013	Julia Wood's Nature Reserve site visit	
	20/09/2013	Zonation and precinct plan update	

8.3 North District Meetings: Management and Health & Safety

Table Bay staff attended two Regional Meetings during this quarter.

Table 4. Records of regional meetings relating to the TBNR.

AREA	DATE	MEETING	PURPOSE
	02/08/2013	North Regional Management Meeting	
	30/09/2013	North Region Health & Safety meeting	

8.4 Environmental Resource Management / Branch Meetings / Fun Days

Table Bay staff attended one Branch Meeting during this quarter

Table 5. Branch meetings relating to the TBNR.

AREA	DATE	MEETING	PURPOSE
	29/08/2013	Branch meeting: Tygerberg NR	

8.5 Partnership and benefits to people

8.5.1 Rietvlei Boma

The Rietvlei Boma was used for no less than 20 events this quarter, providing at least 588 person days of benefit to people

Table 6. Rietvlei boma usage

DATE	GROUP	ACTIVITY	PERSON DAYS
2013/07/01	EPWP working group	Health and Safety	37
2013/07/01	Fire and Life Safety Education & Awareness	Education workshop	15
2013/07/02	Fire and Life Safety Education & Awareness	Education workshop	15
2013/07/03	Planning & Building Development Management	Training session	8
2013/07/08	EPWP working group	Health and Safety	43
2013/07/15	City Parks	Workshop	15
2013/07/22	EPWP working group	Health and Safety	47
2013/07/25	Rietvlei Management Working group	Meeting	8
2013/07/29	EPWP working group	Health and Safety	43
2013/08/05	EPWP working group	Health and Safety	42
2013/08/12	EPWP working group	Health and Safety	43
2013/08/19	EPWP working group	Health and Safety	21
2013/08/26	EPWP working group	Health and Safety	20
2013/09/02	EPWP working group	Health and Safety	14
2013/09/06	City Parks	Business Plan session	8
2013/09/09	EPWP working group	Health and Safety	44
2013/09/16	EPWP working group	Health and Safety	50
2013/09/20	Ntinga Destiny Consulting	Employee selection process	50
2013/09/23	EPWP working group	Health and Safety	35
2013/09/30	EPWP working group	Health and Safety	31
		TOTAL	588

8.5.2 Environmental Education

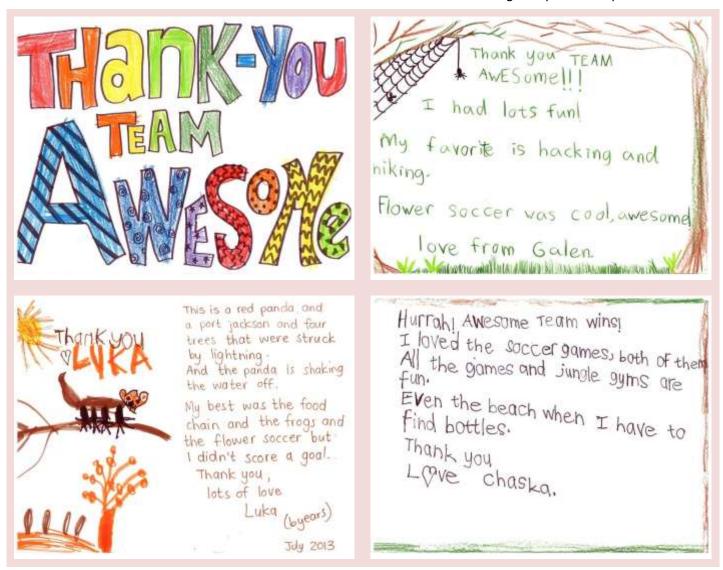
Environmental Education was presented at no less than 6 events this quarter, providing at least 381 person days of benefit to people.

Table 7. Environmental Education this quarter.

DATE	GROUP(S)	LEARNERS	ADULTS	PD'S	PROGRAMME
2013/07/04	Belhar Primary Junior Rangers	31	2	33	Wetland biodiversity
2013/07/22	Blouberg Ridge Primary School	137	3	140	Importance of Biodiversity
2013/07/26	WANR staff	0	5	5	Smart Living training
2013/08/13	Rondebosch East Primary School	92	13	105	Biodiversity programme
2013/08/22	Wallacedene High School	76	2	78	Wetland ecology
2013/09/17	West Coast Christian School	15	5	20	Importance of Biodiversity
TOTALS		351	30	381	

8.5.3 School Holiday Progamme

The school holiday programme for children is growing in popularity. Below are some of the letters that we have received from children after their visits to the reserve during the previous quarter.



8.5.4 Friends of Rietvlei Partnership

The Friends of Rietvlei have invested much into the maintenance of the Rietvlei Education Centre as well as provision of interpretive signage in the Nature Reserve.

Chevron sponsored the production of a series of eight interpretive information sign boards in three languages at two locations in the Nature Reserve. The Friends of Rietvlei designed the sign boards in consultation with the City of Cape Town.

The sign boards were unveiled at the Friends' 25year commemoration at which event the CEO of Chevron, Mr Pottenger, was present.

The role that the Friends of Rietvlei are playing in the Nature Reserve cannot be replaced, and we wish them at least another 25 years of great successes.



Figure 47. Unveiling of interpretive signage (photo: E. Krynauw).

8.5.5 Milnerton Aquatic Club Partnership

The Milnerton Aquatic Club's opening cruise for the season took place on 31/08/2013. An article featured in the local press about the event.

The MAC facilitates much of the water sports that take place at the Rietvlei Water Area, under the management of the Nature Reserve.

MAC event ends in naval flour war

ANDRÉ BAKKES

Water is no stranger to the yachting fraterni-ty. They do, after all, stare in the face of an intimidating storm and sail through it with

That's why they didn't let a bit of flooding get in the way of having a whale of a time at Milnerton Aquatic Club (MAC) on Satur-



James Digby Grant is baptised in flour it is usual for the kids to throw flour and water over the MAC Management Committee after

While the wind was howling, the cold biting and Rietviel once again crept up towards the clubhouse, members celebrated the an-nual MAC Opening Cruise.

It didn't all go according to plan, however. In Roman times, nations went into land battles waving banners to identify themselves and they chanted war cries to intimi-

date the enemy.

In drier times (remember them?) MAC members used to adopt this ancient tradi-tion to decorate their boats at opening cruises. This weekend they had to make do with-out fancy decorations. But, there was plenty of flour!

Conservation officer, Pat Downing says: "Eve Howarth told me that, in all her 30 odd years of being a member, has she laughed so much at the antics of the children and Patrick, the groundsman, who sprayed eve-ryone with the fire hose, water pistols and flour bombs."

The communication officer Angela Gray elaborates on this annual event at the begin-ning of spring: "It is usually marked by a formal raising of the national and club bur-gee (flag) followed by a review of the fleet— a colourful tradition that is steeped in more than 600 years of Royal Navy tradition and history, wherein Admirals (and/or royalty) used to review their fleet on special occasions. Unfortunately boats were unable to launch for the sail-past and thus this couldn't happen.

Given that the opening of the new season also marked the anniversary of a five-year plan, Commodore Ross Cowing chose to use the occasion to review the club's achieve-ments by honouring those who had been

ments by nonouring those was working towards these goals.
Continues Gray: "Clearly the plan had worked and there was an extensive list of achievements – from MAC having the



The MAC Management Committee and VIP visitors: Mark Barnardo (rear commodore of Sail), James Digby Grant (rear commodore of Power), Paul Wagstaff (rear commodore of Windsurfing), Angela Gray (communication officer), Rhine Barnes (MAC president), Villam Gravett (honorary treasurer), Ross Cowing (MAC commodore), Lynne Barnes (MAC member), Rob Steenkarnp (vice-commodore), Pat Downing (conservation officer), Heather Brenner (ward councillor) and Andre Wollheim (honorary secretary).

youngest team in the Lipton Cup for a few and successful season at MAC years, to boasting National Champions in various boat classes, as well as having youngsters who have travelled the World youngsters who have travelled the World and represented South Africa at various World Championships in wake-boarding, sailling, windsurfing and water skiing. Their achievements are an inspiration to all and have certainly laid down a great foundation for what promises to be another enjoyable

Downing agrees when she adds: "The Flag Officers pranced around like Neptune's workers and with such a start to the aquatic season of 2013/14, which was a complete break-away from the traditional ceremony of an opening cruise, the new season promises to be a good one for aquatic sports."

Go to www.tygerburger.co.za for a photo

gallery of the day.

Figure 48. Article in the local press about the MAC's opening cruise..

Project boosts traditional craft

"A very exciting traditional project is flourishing in Du Noon where women are harvesting the problematic Typha Capensis reed that, while not an alien but nevertheless an invader, is choking our waterways and stormwater systems," said Subcouncil 1 chairperson, Heather Brenner during a recent public meeting.

The women are using their natural talents to weave mats, baskets, trays, lampshades and containers to mention but a few.

"The city is in partnership with the project through its Economic Development and Environmental Resource Management Departments to help sustain this initiative and present a unique opportunity to balance the needs of the community, the environment and the market economy," continued Brenner.

Both the DA and the ANC have contributed to the promotion of this project.

Brenner also touched on the city's efforts to provide much-needed relief to residents affected by the recent heavy rains particularly in informal settlements.

Said Brenner: "A total of 65 areas throughout the metro, comprising 3 030 households, were partly or severely inconvenienced by the heavy rains. In Subcouncil 1, parts of Du Noon, Doornbach, Joe Slovo Park and Witsand were badly impacted and Table View did not escape in Ward 4's area just west of the bridge on Blaauwberg Road at Heron Waters and in Sprigg Road, where the Rietvlei burst its banks in historical echo of the 1974 floods."

The city's proactive preparations for the current winter season have apparently been instrumental in reducing the number of areas and residents affected by heavy rains.

Wesfleur Hospital in Atlantis is about to get an extension to accommodate "bigger and better" emergency facilities.

"Costing in the region of R12 million, the new Emergency Centre will be located on the site of the existing Wesfleur Hospital adjacent to the CBD. The extension was positioned on the only suitable space available on the site, which in itself restricted the size of the building in many ways. The new building will closely resemble the aesthetics of the existing hospital. The refurbishing of the ablution facilities as well as the refurbishment of the existing trauma section and its conversion to a paediatric ward is part of the contract," said Brenner.

Figure 49. Article in the local press about a reed harvesting project in TBNR.



took these moody winter pictures of a gnaried, dead tree in the Table Bay Nature Reserve, at the end of Avonmouth Crescent, Parklands.



Figure 51. Pictures from the Nature Reserve in the local press.

Figure 50. Pictures from the Nature Reserve in the local press.



■ The old tradition of paddling the Dieprivier in Milnerton from bridge to bridge by the Grade 9 class of the Sonnekus Church youth group, took on a new meaning when they had to fight their way through the dense reeds and muddy river bank just to get to the water on Sunday September 8. After an hour of tough paddling most of them arrived at the Woodbridge unscathed.

Figure 52. The Diep River used for paddling.

This indicates a dog chasing a bird in the Nature Reserve. The law requires that dogs must always be under control in dog walking areas and may not threaten wild animals.



Figure 53. A bad example of a dog out of control.

9 HUMAN RESOURCE MANAGEMENT

9.1 Staff Establishment and training

Staff at TBNR consisted of 11 permanent staff and 21 contract (non-permanent) staff

Table 8. Table Bay staff complement.

TBNR	POSITION	PURPOSE	PERMANENT	CONTRACT
Internal	Area Manager	Functional / Operational Management	1	
	Assistant Cons Off	Gate control / Visitor Mngt / Law Enforcement	2	
	Assistant Cons Off	Conservation Compliance – Diep River	1	
	People & Cons Off	1		
	Senior Field Ranger	1		
	Field Ranger	4		
	Senior Workers	Labour, field Ranging	1	
	Intern	Education Programme Management		1
	Student	Nature Conservation Learning		1
External	Workers	EPWP Labour		19
		TOTALS	11	21

- **9.1.1 Nature Conservation student for 2013, Landi Louw,** applied for a permanent position as a Visitor Control Officer at Blaauwberg Nature Reserve. She was successful in her application and started working at BBNR on 01/09/2013. **We want to congratulate Landi Louw and wish her success.**
- **9.1.2 Nature Conservation students** selected for 2014 are Damon Hope, Stuart van Blerk and Braden Wilkinson. They will replace the 2013 students on 01/01/2014.
- **9.1.3 UNIMOG driver training** was given to Koos Retief and Clinton Roux. Both passed the course.
- **9.1.4** The North Region annual staff educational outing was undertaken at Cape Point this year.

The day is intended to be used to inspire our staff through environmental education, team building, and experiencing a natural landscape other than the area that we normally work in.

Below picture was taken at the lookout point of Cape Point. Back row: Sakhile Luhani, Gavin Oliver, Kyle Kelly, Koos Retief, Lungiswa Mangcola Clinton Roux, Sonwabile Shilinga, Qalile Lisa, Allan Gargan. Front row: Mzukisi Matyobeni; Elzette Krynauw, Jade Kastoor.



Figure 54. North Region staff educational outing to Cape Point, Sakhile Luhani pointing to where we come from (photo Daniel Droste).

10 VISITORS

10.1 Entrance and revenue

Entrance fees at Rietvlei totalled R30 084 during this quarter.

Table 9. Revenue collected at the Rietvlei main entrance this quarter.

	TARIFF	JULY	AUG	SEPT	VISITORS	MONEY
Pensioners	R 6.50	34	16	26	76	R 494.00
Adults	R 13.00	212	221	177	610	R 7 930.00
Children 3-17 yrs	R 6.50	63	51	29	143	R 929.50
Scholars - student card	R 6.50	11	1	20	32	R 208.00
Children <3yrs	R 0.00		3		3	R 0.00
Friends groups	R 0.00	35	23	11	69	R 0.00
Season Ticket - adult	R 120.00	1	1	1	3	R 360.00
Season Ticket - snr citizen	R 62.00	3	1		4	R 248.00
Season Ticket - family	R 185.00	2	4	2	8	R 1 480.00
Vehicles	R 18.00	125	124	95	344	R 6 192.00
Powerboats	R 50.00	13	16	15	44	R 2 200.00
Sail / paddle adults	R 20.00	3	2	1	6	R 120.00
Sail / paddle <18yrs	R 11.50	2			2	R 23.00
Sail /paddle annual permit	R 90.00	1		3	4	R 360.00
Fishing Senior Citizen	R 14.00	19	16	16	51	R 714.00
Fishermen Adult	R 40.00	71	82	47	200	R 8 000.00
Fishermen Children	R 14.00	27	22	10	59	R 826.00
TOTALS		622	583	453	1658	R 30 084.50

Visitors to the Nature Reserve include people that pursue environmental education opportunities, water sports recreation, as well as leisure activities in a natural environment.

Many visitors to open access areas in the Nature Reserve, such as the beach, public walkways and the Milnerton Lagoon, are not accounted for in the revenue and visitor statistics.

Recently the Rietvlei Boma facility has become an additional venue at the Nature Reserve that attracts groups for meetings, workshops and training sessions.

The focus of Management is to promote visitors to the Nature Reserve in line with the zonation plan and management framework.

The more people are involved in activities at the Nature Reserve, and the more people use the reserve and its facilities in responsible ways, the more valued the reserve would be in the community.



held its third annual school holiday programme recently. Children aged six to 12 enjoyed fun-filbed mornings learning about food webs and the importance of plants and animals in the environment. Outdoor activities allowed the children to identify plants and animals, their functions and the effects on a food web if a species is removed or becomes extinct. Other activities included races, nature bingo, scavenger hunts and bio-billionaire which encouraged group work amongst the children and tested the knowledge they had learned throughout the programme. Go to www.tygerburger.co.za for more photos.

Figure 55. Article in the local press about the school holiday programme.

10.2 The Cape Radio Flyers' lease at Rietvlei will expire after 20 years, on 31/05/2014. The club applied to Property Management Department for a renewal of their lease. The Environmental Resource Management Department and the Nature Reserve cited various reasons why the lease should not be renewed. A final outcome on this matter is being awaited. Reserve Management is planning to rehabilitate the site of the lease in order to restore the natural wetland, once the lease has expired.

The below image in the local press creates the impression that anybody can fly model aircraft at Rietvlei. It makes no mention of the club or the lease area. No comment was requested from Reserve Management either. Considering the sensitive wetlands, and the fact that the club is not allowed to launch or land planes outside the lease area, this type of article sends the wrong message to residents and neighbours of the Nature Reserve.



Figure 56. Photo in the local press about a model aircraft flyer at the Rietvlei wetlands.

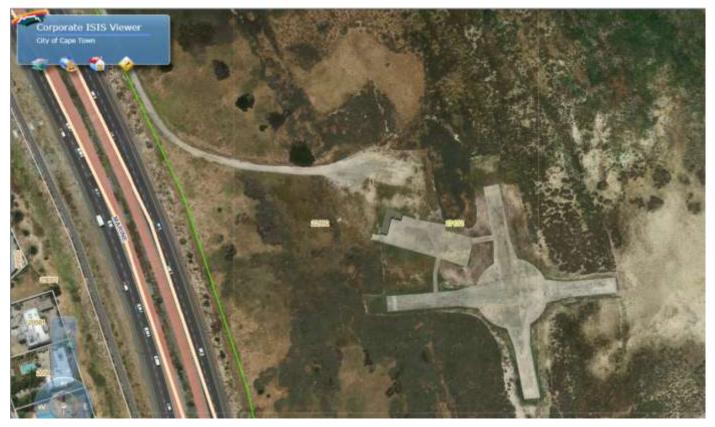


Figure 57. Road and lease area of Cape Radio Flyers in the Rietvlei Section that must be rehabilitated after the expiry of their lease.

10.3 The old tyre wake barrier at Rietvlei was removed due to its state of disrepair. The Milnerton Aquatic Club towed the massive structure out of the water. The Nature Reserve staff loaded and dumped the material at Vissershok landfill site.

The dumping charges cost almost R7,000 over 13 truck dumps of about 20 tonnes of material.

This operation will improve the visual perspective of the water as well as stop the constant contamination of the shoreline by tyres and flotation material.

In future all infrastructure on the water must be approved in writing by the Nature Reserve Management.



Figure 58. Old tyre barrier being hauled out.



Figure 59. Temporary stockpiling of tyres on shoreline.



Figure 60. First load of tyres being removed.

10.4 The Milnerton Riding Club experienced flooding of the stables area during this quarter. The lease area of their club does not fall inside the Nature Reserve, but it does lie in the River's floodplain.



Figure 61. Milnerton Riding Club (photo: Tanya Williams).

11 INFRASTRUCTURE MAINTENANCE

- **11.1** The new electric entrance gate was completed and the old fencing was removed.
- **11.2 Indigenous landscaping** was planted around the entrance gate and the palisade wall of the boat park in order to beautify the entrance and create a welcoming environment. Geert Sprangers and Stefan Goets assisted the Nature Reserve team in this work.
- **11.3 New interpretive signage kiosks** were constructed and moved to selected locations. The Friends of Rietvlei worked with the Nature Reserve. The signs were later placed in the kiosks.
- **11.4 Litter** was removed from various locations in the reserve. Hundreds of bakkie and truck loads are removed every quarter. Due to massive littering on the roads an in storm water catch pits, much of this litter flows into the Milnerton Lagoon.
- **11.5** The boardwalks are being repaired after severe flooding caused some damage. Some of the new sections of boardwalk had not settled well enough yet, causing parts of the boardwalk to lift. When the flood subsided the damage was visible. The repairs will be done be re-digging the holes for the support posts.



Figure 62. Construction of new signage kiosks.



Figure 63. Litter in the Milnerton Lagoon.



Figure 64. The boardwalk flooded.

12 FINANCIAL MANAGEMENT

12.1 Projects for **2013/2014** financial year at TBNR include:

- Construction of a water conservancy tank at Rietvlei office
- Rietvlei boma ceiling insulation
- Installation of solar water geysers at the ablution block
- Upgrade of Rietvlei boma canvas roller blinds

These projects are currently underway in the supply chain process.

APENNDIX 1: Species present in Table Bay Nature Reserve

Present Amphibians 7

Amietia fuscigula Amietophrynus pantherinus Strongylopus grayii Tomopterna delalandii Xenopus laevis Kassina senegalensis

Vandijkophrynus angusticeps Return to table.

Present Mammals

30

Aonyx capensis Arctocephalus pusillus Atilax paludinosus Bathyergus suillus Canis lupus familiaris Cryptochloris asiatica Cynictis penicillata Equus burchellii Felis caracal Felis silvestris catus Galerella pulverulenta Genetta tigrina Georychus capensis Herpestes ichneumon Hystrix africaeaustralis Lepus capensis Mellivora capensis Mus minutoides Mus musculus Myosorex varius Neoromicia capensis Oryctolagus cuniculus Otomys irroratus Raphicerus campestris Raphicerus melanotis Rattus norvegicus Rattus rattus Rhabdomys pumilio Sylvicapra grimmia Tatera afra Return to table.

Present Fish 13

Anguilla mossambica steinitzi Caffrogobius nudiceps Clarias gariepinus Cyprinus carpio Galaxias zebratus Gambusia affinis Gilchristella aestuarius Lithognathus lithognathus

Liza richardsonii Mugil cephalus

Oreochromis mossambicus

Sandelia capensis Tilapia sparrmanii Return to table.

Present Reptiles 20

Acontias meleagris meleagris Afrogecko porphyreus Bradypodion pumilum Chersina angulata Dasypeltis scabra Duberria lutrix Lamprophis aurora Lamprophis capensis Lycodonomorphus inornatus Lycodonomorphus rufulus

Meroles knoxii Naja nivea

Pelomedusa subrufa

Psammophylax rhombeatus

Pseudaspis cana Scelotes bipes Tetradactylus seps Trachylepis capensis Trachylepis homalocephala Typhlosaurus caecus Return to table.

Present Birds 185

Accipiter melanoleucus Accipiter tachiro Acrocephalus baeticatus Acrocephalus gracilirostris

Actitis hypoleucos Actophilornis africanus

Alcedo cristata Alopochen aegyptiaca Amaurornis flavirostra

Anas capensis Anas erythrorhyncha Anas hottentota Anas platyrhynchos Anas smithii Anas sparsa Anas undulata Anhinga rufa

Anthus cinnamomeus
Apalis thoracica
Apus affinis
Apus apus
Apus barbatus
Apus caffer
Ardea cinerea
Ardea goliath
Ardea purpurea
Asio capensis
Batis capensis
Bostrychia hagedash
Bradypterus baboecala

Bubo africanus Bubulcus ibis Burhinus capensis Burhinus vermiculatus Buteo vulpinus Calandrella cinerea Calidris alba Calidris canutus Calidris ferruginea Calidris minuta Cecropis cucullata Centropus burchellii Ceryle rudis Charadrius hiaticula Charadrius marginatus Charadrius pallidus Charadrius pecuarius Charadrius tricollaris Chlidonias leucopterus

Chiadrius tricolaris
Chlidonias leucopterus
Chroicocephalus cirrocephalus
Chrysococcyx caprius
Chrysococcyx klaas
Ciconia ciconia
Cinnyris chalybeus
Circus maurus
Circus ranivorus
Cisticola juncidis
Cisticola subruficapilla
Cisticola textrix

Cisticola subruficapili Cisticola textrix Cisticola tinniens Colius colius

Colius striatus Columba guinea Columba livia Corvus albicollis Corvus albus Corvus capensis Corvus splendens Cossypha caffra Crithagra albogularis Crithagra flaviventris Crithagra sulphurata Dendrocygna bicolor Dendrocygna viduata Dicrurus adsimilis Egretta alba Egretta garzetta Egretta intermedia Elanus caeruleus Emberiza capensis Erythropygia coryphoeus

Estrilda astrild
Euplectes capensis
Euplectes orix
Falco biarmicus
Falco peregrinus
Falco rupicolus
Fulica cristata
Gallinago nigripennis
Gallinula chloropus
Haematopus moquini
Halcyon albiventris
Haliaeetus vocifer
Himantopus himantopus
Hirundo albigularis

Hirundo dimidiata
Hirundo fuligula
Hirundo rustica
Hirundo semirufa
Hydroprogne caspia
Ixobrychus minutus
Laniarius ferrugineus
Lanius collaris
Larus dominicanus
Limosa lapponica
Macronyx capensis
Megaceryle maximus
Merops apiaster

Megaceryle maximus
Merops apiaster
Milvus migrans
Milvus parasitus
Morus capensis
Motacilla capensis
Nectarinia famosa
Netta erythrophthalma
Numenius arquata
Numida meleagris
Nycticorax nycticorax
Oena capensis
Onychognathus morio

Onychognathus morio
Oxyura maccoa
Passer domesticus
Passer melanurus
Pelecanus onocrotalus
Phalacrocorax africanus
Phalacrocorax capensis
Phalacrocorax lucidus
Phalacrocorax lucidus
Phalaropus tricolor
Philomachus pugnax
Phoeniconaias minor
Phoenicopterus roseus

Platalea alba

Plectropterus gambensis Plegadis falcinellus Ploceus capensis Ploceus velatus Pluvialis squatarola Podiceps cristatus Podiceps nigricollis

Porphyrio madagascariensis

Porphyrio martinicus Prinia maculosa Pternistis capensis Pycnonotus capensis Recurvirostra avosetta

Riparia cincta Riparia paludicola Rostratula benghalensis

Rynchops niger Scleroptila africana Scopus umbretta Serinus canicollis Sigelus silens Sterna balaenarum Sterna hirundo Sterna vittata

Streptopelia capicola Streptopelia semitorquata Streptopelia senegalensis

Sturnus vulgaris
Sylvietta rufescens
Tachybaptus ruficollis
Tachymarptis melba
Tadorna cana
Telophorus zeylonus
Thalasseus bergii
Thalasseus sandvicensis
Thalassornis leuconotus
Threskiornis aethiopicus
Tricholaema leucomelas

Tringa glareola
Tringa nebularia
Tringa stagnatilis
Turdus olivaceus
Tyto alba
Upupa africana
Urocolius indicus
Vanellus armatus
Vanellus coronatus
Vidua macroura
Xenus cinereus
Zosterops capensis

Present Plants 258

Zosterops pallidus

Return to table.

Acacia cyclops
Acacia saligna
Aizoon sarmentosum
Albuca fragrans
Albuca juncifolia~
Albuca spiralis
Amaryllis belladonna
Amellus asteroides~
Androcymbium capense
Androcymbium eucomoides
Anthospermum prostratum
Anthospermum spathulatum
ecklonianum

Anthospermum spathulatum~ Aponogeton distachyos Arctotheca calendula Arctotheca populifolia Arctotis hirsuta Aristea africana

Aspalathus cymbiformis Aspalathus ericifolia~

Arundo donax

Aspalathus hispida~ Aspalathus ternata Asparagus asparagoides Asparagus capensis Asparagus rubicundus Athanasia dentata Atriplex cinerea~

Atriplex semibaccata~ Avena fatua Azolla filiculoides Babiana tubiflora Babiana tubulosa Berkheya rigida

Bolboschoenus maritimus

Briza maxima
Brunsvigia orientalis
Bulbine lagopus
Calopsis viminea
Carissa macrocarpa
Carpanthea pomeridiana
Carpobrotus acinaciformis
Carpobrotus edulis
Ceratophyllum demersum~
Chlorophytum undulatum
Chrysanthemoides incana
Chrysanthemoides monilifera
Cliffortia ericifolia

Cliffortia hirta
Commelina benghalensis
Conicosia pugioniformis~
Cortaderia selloana
Cotula coronopifolia
Cotula filifolia
Cotula turbinata
Cotyledon orbiculata~
Crassula decumbens
Crassula fallax

Cliffortia falcata

Crassula flava Crassula glomerata Cyanella hyacinthoides Cynanchum africanum Cynodon dactylon Cysticapnos vesicaria Dasispermum suffruticosum

Diascia capensis Dimorphotheca pluvialis

Disphyma crassifolium

Disa bracteata Dischisma capitatum Dischisma ciliatum ciliatum

Drimia filifolia

Drosanthemum candens
Echium plantagineum
Ehrharta calycina
Ehrharta villosa~
Eichhornia crassipes
Elegia tectorum
Erica subdivaricata
Eriocephalus africanus~
Euphorbia burmannii
Euphorbia mauritanica~

Euphorbia peplus
Falkia repens
Felicia tenella~
Ferraria crispa~
Ferraria crispa~
Ficus natalensis~
Geissorhiza aspera
Geissorhiza tenella
Geranium incanum~
Gladiolus carinatus
Gladiolus cunonius
Gladiolus griseus
Gnidia spicata

Haemanthus pubescens

Haemanthus pubescens pubescens

Haemanthus sanguineus Harveya squamosa Hebenstretia dentata Helichrysum patulum Helichrysum revolutum Heliophila africana Hermannia alnifolia Hermannia multiflora Hermannia pinnata Hermannia procumbens

Hermannia procumbens procumbens

Hermannia procumbens~ Holothrix villosa Indigofera complicata

Ixia paniculata

Lachenalia contaminata
Lachenalia pallida
Lachenalia reflexa
Lachnaea grandiflora
Lampranthus amoenus
Lampranthus calcaratus
Lampranthus explanatus
Lampranthus glaucus
Lampranthus reptans
Lampranthus sociorum
Lavatera arborea
Lemna gibba

Lemna minor
Leucadendron levisanus
Leysera gnaphalodes
Limonium equisetinum
Limonium scabrum~
Limosella africana~
Lolium multiflorum

Ludwigia adscendens diffusa

Lycium afrum
Lycium ferocissimum
Lyperia lychnidea
Lyperia tristis
Lythrum salicaria

Malva parviflora~ Manulea rubra Melianthus major

Mesembryanthemum crystallinum

Metalasia densa
Metalasia muricata
Micranthus junceus
Monopsis lutea
Monopsis simplex
Moraea albiflora
Moraea flaccida
Moraea gawleri
Morella cordifolia
Morella quercifolia
Muraltia dumosa
Muraltia satureioides
Myoporum tenuifolium
Myriophyllum aquaticum

Nemesia affinis

Oxalis luteola

Nidorella foetida
Nylandtia spinosa
Olea capensis~
Olea europaea africana
Ornithogalum flaccida
Ornithogalum thyrsoides
Orphium frutescens
Otholobium fruticans
Otholobium virgatum
Othonna filicaulis
Oxalis hirta~

Oxalis obtusa Oxalis pes-caprae~ Oxalis purpurea Oxalis pusilla Paspalum vaginatum Passerina corymbosa Pelargonium capitatum Pelargonium hirtum Pelargonium myrrhifolium~ Pelargonium senecioides Pelargonium triste Pennisetum clandestinum Persicaria lapathifolia Petalacte coronata Pharnaceum lineare Phoenix canariensis Phragmites australis Phylica cephalantha Phylica ericoides~ Phylica parviflora Phyllobolus canaliculatus Phyllopodium cephalophorum

Pistia stratiotes
Plantago crassifolia
Plantago crassifolia
Plantago crassifolia
Plecostachys serpyllifolia
Pseudalthenia aschersoniana
Pterygodium catholicum
Putterlickia pyracantha
Rhynchosia ferulifolia

Romulea hirsuta~ Romulea schlechteri Romulea tabularis Rumex crispus Rumex lativalvis Ruschia caroli Ruschia macowanii Salvia africana-lutea Sarcocornia natalensis~ Sarcocornia perennis~ Satyrium coriifolium Satyrium odorum Schinus terebinthifolius Searsia crenata Searsia laevigata Searsia lancea Searsia lucida~ Searsia tomentosa Sebaea albens Sebaea aurea

Senecio arenarius
Senecio burchellii
Senecio elegans
Senecio halimifolius
Senecio hastatus
Senecio littoreus~
Senecio pubigerus
Senecio rosmarinifolius
Sideroxylon inerme~
Sparaxis bulbifera

Spergularia media Spiloxene capensis Spiloxene curculigoides Stenotaphrum secundatum

Stoibrax capense Struthiola striata Sutherlandia frutescens Tetragonia decumbens Tetragonia fruticosa Thamnochortus erectus Thamnochortus spicigerus

Thesium spicatum Torilis arvensis Trachyandra divario

Trachyandra divaricata Trachyandra revoluta Tribolium hispidum Triglochin bulbosa Typha capensis Vicia benghalensis

Vicia sativa∼

Wachendorfia paniculata Wahlenbergia androsacea Wahlenbergia capensis Watsonia meriana~ Zantedeschia aethiopica Zygophyllum sessilifolium

Return to table.