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TRANSPORT FOR CAPE TOWN
ENVIRONMENTAL MANAGEMENT DEPARTMENT

Kyran Wright
Site Manager

T: 021 444 0315 E: kyran.wright@capetown.gov.za

CONSERVATION WISE

Conserving Biodiversity for Future Generations

QUARTERLY REPORT OF THE MILNERTON RACECOURSE ENVIRONMENTAL MANAGEMENT COMMITTEE

JANUARY – MARCH 2018



Left to right: *Orphium frutescens*, a mole snake and *Lycium afrum*.



Above: *Elegia vaginulata*.

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Surreptitious Scorpions

A scorpion survey was conducted for the first time at the Milnerton Racecourse in March. The Site Manager, four students and another staff member from the Biodiversity Branch conducted the survey in the Southern area. There were no previous records of scorpions in Milnerton Racecourse. It is believed that scorpions were never targeted during previous invertebrate surveys.

Scorpions have a unique characteristic in that their exoskeletons fluoresce brightly when exposed to ultraviolet (UV) light. This peculiar feature has been somewhat of a mystery to scientists with current theories hypothesising that scorpions can detect light throughout their exoskeleton, aiding in identifying shelter and obstructions. Regardless of the purpose behind the cyan-green glow, this trait allows one to easily locate them in the field at night time, provided that a UV light is used.

A moonless night in March was selected to do the survey. A 51 LED UV torch (purchased by the Environmental Management Committee) was used for the survey.

Scorpions, although nocturnal, are known to remain concealed in full moon conditions to avoid detection by predators. Unfortunately the weather made an unexpected turn in the evening, bringing in a chilly wind. Scorpions are active during warmer conditions.

Four scorpions were located during the survey, identified by Conservation Services Coordinator Cliff Dorse as *Uroplectes lineatus* (Striped lesser thick-tailed scorpion). The individuals were very small, ranging from 15 mm to 30 mm in length. Although these were juveniles, we expect to find larger specimens in warmer conditions.

Uroplectes lineatus are a Western Cape endemic that occur from the West Coast National Park to the Cape Peninsula. Their venom is noted for its clinical importance. Scorpions, unlike most other invertebrates, give birth to live young. The babies will climb onto their mother's back and remain with her for about 10-20 days, until their exoskeletons harden. The individuals that were detected during the survey had likely only recently left their mothers' protective care.

Below: *U. lineatus* found during the survey under UV light (top left); normal light (top middle); under UV in its natural habitat (top right); an adult *U. lineatus* specimen (bottom left, photo: N. Larsen) and a mother *U. lineatus* with a brood of babies on her back (bottom right; photo: N Larsen)



A Kukumakranka Discovered in MRC

A new species, *Gethyllis ciliaris*, commonly known as kukumakrankas, was added to the Milnerton Racecourse species list. 'Kukumakranka' refers to plants of the genus, *Gethyllis*, of which there are 33 accepted species.

This particular species is classified as 'Near Threatened' according to the IUCN Red List and brings the total of indigenous species at the Reserve to 329. Of these species, 38 are recognised as Red List species, further highlighting the need to carefully conserve the flora and ecosystems of the site. *Gethyllis ciliaris* flowers over Christmas time (thought to be triggered by changes in atmospheric pressure) when only the uniquely fragrant flower itself is visible above the surface.



Left: Botanical painting by Robert Jacob Gordon of *Gethyllis ciliaris* as present both above and below the ground, in its different developmental states

Right: *Gethyllis ciliaris* discovered in the Northern Area of the Milnerton Racecourse.

Following germination, the fruit of this geophyte remains hidden below the ground until it emerges around three months later, dispersing its seeds just in time for the winter rain. The distinctive spiralled leaves emerge from the soil shortly thereafter.

The edible fruit of *Gethyllis* species is sometimes used as a flavourant in brandy which imparts its unique aroma into the beverage.

If you come across a kukumakranka, or any other interesting find in the Reserve, please do forward them on to the Site Manager for our records.



Preparing for the Burn

Much of this quarter was spent preparing for an ecological burn at Milnerton Racecourse to promote the restoration of the newly obtained piece of land in the Nature Reserve.

A permit was applied for from the City's Air Pollution Management Division. In preparation for the burn, a team of worker hand-pulled kikuyu grass from the Restoration Area during February.

This team also assisted in preparing research plots to compare the effects of fire against areas that will not be burnt, as part of former Site Manager, Landi Louw's Masters project.

Cones of *Leucadendron levisanus* (Critically Endangered) were collected from the surrounding reserve area and these will be sown into the burnt are.

A notice was placed in local newspapers alerting residents to the planned burn. Letters were also dropped in postboxes of residents in the immediate vicinity.

At the time of publication of this report, the ecological burn had already been conducted. Look out for next quarter's edition for a complete report.



Above: The area to be burnt (yellow) marked as Site 3

Breaking the Berm

An unnatural berm in the Restoration Area was flattened in March as part of the ongoing rehabilitation of this section of the Milnerton Racecourse. Historically the Restoration Area was used as a training area for horses. Circa 2003 an additional path was cleared which entailed bulldozing the earth to one side, and creating the berm. Following the removal of laterite tracks in 2017, two deep gullies remained on both sides of this berm, creating an unnatural topography. This berm needed to be flattened to recreate the natural topography.

Kenilworth Racing carried out the operation with the aid of one of their tractors. The flattening was a success with the berm providing ample soil to fill the trenches on either side to a level consistent with the surrounding land.

Currently the area is devoid of vegetation. It is expected to see regrowth with the arrival of the winter rain. The patch will also be re-planted with cuttings of various species sourced from the surrounding Reserve in July. The exposed sand provided an ideal source of potting soil which is being used to root the cuttings in the City's plant propagation facility in Westlake. The restoration of this patch will be monitored in the future.

Left to right, below: The berm in the northwestern corner of the Restoration Area; a Kenilworth Racing tractor levelling the berm; the levelled berm.



Upcoming Event

Our annual nocturnal survey will be held at Milnerton Racecourse in early May this year. The objective of the survey is to document elusive animals which are usually active in the evening or at night.

During the survey we will explore both the Northern area as well as the restricted-access Southern area. The data collected is used to help us better understand the fauna that live in the Reserve and a fantastic opportunity for members of the public to explore the area at an unusual time.

Certain diurnal species, such as the Cape dwarf chameleon, are actually easier to survey at night and are a true highlight of the evening. This year we will also be incorporating a scorpion survey, similar to the one mentioned earlier in this report.

The survey will begin shortly after sunset and last for about two hours. Those that wish to assist with the survey this year can contact the Site Manager at Kyran.Wright@capetown.org.za.

Please note that we do cover some rough terrain so participants must be fit and wear appropriate shoes and clothing.

Right: A few participants from last year's survey (top); A Cape dwarf chameleon (bottom left); A Clicking stream frog (bottom right)

