



CITY OF CAPE TOWN
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ENERGY, ENVIRONMENT & SPATIAL PLANNING
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CONSERVATION WISE

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QUARTERLY REPORT OF THE MILNERTON RACECOURSE ENVIRONMENTAL MANAGEMENT COMMITTEE

JANUARY – MARCH 2016



Left to right: *Pelargonium auritum* var. *auritum*, *Tetragonia fruticosa*, and *Pelargonium triste*.



Chinkerinchee (*Ornithogalum thyrsoides*) in the Northern Area of Milnerton Racecourse.

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Aquatic macro-invertebrate research

A comparison of aquatic invertebrates present in permanent, seasonal and temporary ponds was undertaken by Cape Peninsula University of Technology (CPUT) student Karen Merret at the Milnerton Racecourse section of Table Bay Nature Reserve. The study started in 2015 and the report was assessed by the CPUT in this quarter.

The study looked at the aquatic macro-invertebrate communities at a family level within the different type of ponds. The purpose was to determine whether or not there were any significant differences between the communities present in the different type of ponds and whether or not any environmental parameters affected them significantly.

Ten families of aquatic macro-invertebrates were found. These include pond snails, water boatmen, water scavenger beetles, midges, water mites, riffle beetles, aquatic caterpillars, mosquitoes, back swimmers and predaceous diving beetles.

No significant difference was found between the macro-invertebrate communities of the temporary, seasonal and permanent ponds at Milnerton Racecourse, but a strong correlation between family diversity and the pH of the water was found.

Karen also stated that freshwater ponds are important habitats for invertebrates that are under threat globally due to negative anthropogenic influences such as pollution. In comparison to other branches of freshwater ecology, little attention has been paid to them and this is especially the case within the Western Cape (see below images of invertebrates identified to Family level).



Left to right: Water scavenger beetle larvae, water boatman, midge larvae, mosquito larvae.



Left to right: Aquatic caterpillar, water mite, predaceous diving beetle, pond snail.

Feathery fauna

A Barn owl (*Tyto alba*) was seen on the evening of 19 February 2016 by wildlife enthusiast Trevor Hardaker as it repeatedly flew over the reserve. The last previous record of Barn owl at Milnerton Racecourse was in 1997.

There are currently 128 species of birds on Milnerton Racecourse's birds species list. Since 2014, two new species have been added to the list, including Diderick cuckoo (*Chrysococcyx caprius*) and African harrier-hawk (*Polyboroides typus*).

Right: An example of a barn owl (Photo: F. de Jager, Eagle Encounters).



Habitat suitability assessment for Cape caco

A habitat assessment was conducted by Site Manager Landi Louw to determine the suitability of the Milnerton Racecourse section of the Table Bay Nature Reserve for the possible introduction of *Cacosternum capense* (Cape caco, also known as the Cape dainty frog). The study started in 2014 and the report was assessed by UNISA during this quarter.

After Cape caco was originally discovered at Rondebosch Common in Cape Town, it has since become locally extinct there due to the historical transformation of the habitat. In 2010 Cape caco was classified as "Near Threatened" by the IUCN.

The natural habitat of the Cape caco has largely been destroyed. They are now only protected in three nature reserves in the Western Cape while about 90% of the breeding population remains outside formally protected areas in agricultural wheat fields. The long-term survival of these sub-populations is insecure due to changes in agricultural methods and the use of chemicals.

The purpose of the study was to determine whether there are suitable habitats present at Milnerton Racecourse to sustain a population of Cape caco. Data on the frog's habitat preferences were collected from a site at Klipheuwel where the species currently occurs. The same parameters were then measured at the Milnerton Racecourse in order to compare the two sites.

The parameters that were measured included water and soil pH, water temperature and depth, circumference of ponds, water colour and dissolved oxygen, as well as vegetation and prey species. Most of these parameters were similar between Milnerton Racecourse and Klipheuwel. Soil and water salinity was however significantly different between the two sites, with Milnerton Racecourse being more saline.

It was recommended to further study the interactions of Cape caco with other frog species, as well as collect data on the frog's diet, possible predators and their salinity preferences.

Due to the low rainfall levels experienced during 2015, a very small number of temporary ponds formed at the study sites. Temporary ponds are the primary habitat of Cape cacos during winter. During summer they aestivate underground. It is thus recommended that the study is continued during consecutive years when the rainfall is higher and more temporary ponds are available for data collection.

The two sites that were used for data comparison are quite different in terms of the texture and chemistry of the soils as well as vegetation present. A control site which is located within the Cape Flats area, which is more similar to the habitat at Milnerton Racecourse, should be beneficial.



A Cape caco (Photo: Allan Channing, IUCN).



A temporary pond at Klipheuwel.

Sprawling species list

Eleven new plant species were added to the plant species list of Milnerton Racecourse since September 2014. *Babiana nana* was recently identified at Milnerton Racecourse, and is a new species record for the site, bringing the total plant species record to 259.



Right: *Babiana nana* at Milnerton Racecourse.

THREAT: Litter!

A variety of litter was found during monthly litter clean-ups at Milnerton Racecourse this quarter. The majority of litter that is picked up at the site includes the thin plastic bags handed out at grocery stores as well as the larger thicker plastic grocery bags.

Even when disposed of properly, plastic takes many years to decompose and break down, generating large amounts of garbage over long periods of time. If not disposed of properly the bags can pollute waterways, clog sewers and have been found in oceans affecting the habitat of marine animals.

Certain properties in the La Camargue and Stable Yard complexes have been responsible for the littering. The items that are simply dumped over the walls into the Nature Reserve include corn stalks, prawns, mutton bones, sand, garden refuse, cigarette butts, cigarette packets as well as alcohol bottles and cans.

We encourage residents to help us protect the Nature Reserve by abiding to the National Environmental Management: Protected Areas Act (Act 57 of 2003) as well as the Milnerton Racecourse Operational Environmental Management Plan. Dumping of litter, garden, refuse, cigarette butts, or building rubble in the Nature Reserve will not be tolerated. Any person contravening the National Environmental Management: Protected Areas Act may be prosecuted or fined.



Garden refuse and litter found next to certain properties in the La Camargue and Stable Yard complexes.

THREAT: Fire!

Prescribed ecological burns were done at Milnerton Racecourse during 2008, 2010 and 2012. The Nature Reserve was divided into three burn blocks and one block burned was burned every two years.

The purpose of the burns was to reduce fire hazards by removing large amounts of flammable plant material as well as rejuvenate fire-dependent Fynbos by stimulating the germination of seed in the soil.

The Nature Reserve is scheduled for another controlled burn after 2020. If Fynbos burns too often or in the wrong season due to accidental fires, plants do not have time to set seed, which could cause the loss of species and a deterioration of biodiversity.

We therefore urge residents that live adjacent to the Nature Reserve, as well as visitors, to not smoke or dispose of cigarette butts in the nature reserve.

The City's Community Fire Safety by-law declares that dropping cigarette butts is an offence and can cause uncontrolled wildfires.

Wildfires do not only destroy biodiversity, but also cause damage worth millions of Rands and potentially the loss of human life. Arson is a serious criminal offence that could result in jail time.



Watsonia meriana bulbs emerging at the Racecourse after a prescribed ecological burn in 2008.