



**CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD**

**SPATIAL PLANNING AND ENVIRONMENT
ENVIRONMENTAL MANAGEMENT DEPARTMENT**

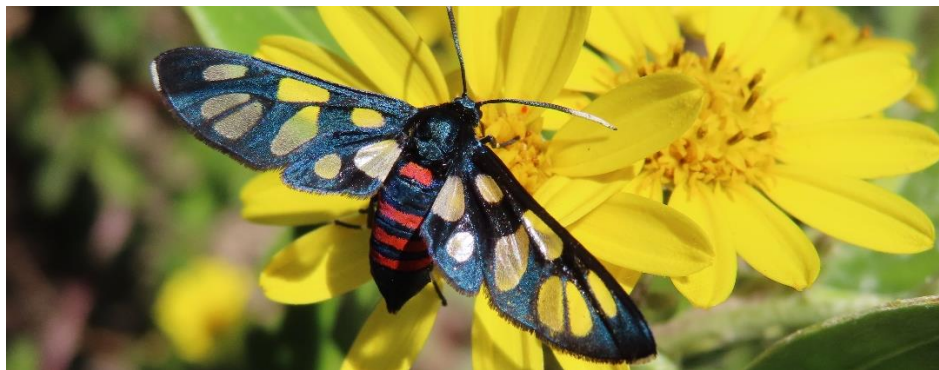
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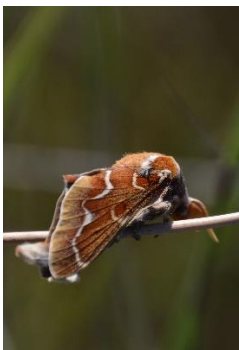
CONSERVATION WISE

Conserving Biodiversity for Future Generations

January – March 2021 REPORT OF THE MILNERTON RACECOURSE ENVIRONMENTAL MANAGEMENT COMMITTEE



Above: A Heady Maiden (*Amata cerbera*) seen on a Bitou Bush (*Osteospermum moniliferum*) flower.



From left to right: Cape Lappet Moth (*Eutricha capensis*); *Manulea rubra*; Black Headed Heron (*Ardea melanocephala*); *Leucadendron levisanus*; Cape Dwarf Chameleon (*Bradypodion pumilum*)

Funded by the **Royal Ascot Master Property Owners' Association** (RAMPOA) in partnership with the **City of Cape Town** and the **Cape Town Environmental Education Trust** (CTEET).



Ecological Burn

WHY DO WE NEED TO BURN?

Milnerton Racecourse Section of Table Bay Nature Reserve (MRC) conserves the Critically Endangered Cape Flats Sand Fynbos, which is largely endemic to Cape Town. Approximately, the entirety this vegetation type occurs within the City of Cape Town area, and more than 85% is transformed.

Of the 324 recorded indigenous plant species in MRC, 26 species have the threatened Red List status, including *Cliffortia ericifolia*, *Hermannia procumbens* ssp. *procumbens*, *Leucadendron levisanus*, *Acrolophia bolusii* and *Lampranthus stenus* (largest known population).



Figure 1 North view of the northern section of MRC, a depiction of a near natural habitat of Cape Flats Sand Fynbos



Figure 2 North view of the southern section of MRC, a depiction of a slightly degraded habitat of Cape Flats Sand Fynbos.



Figure 3 *Hermannia procumbens* ssp. *procumbens*



Figure 4 *Leucadendron levisanus*

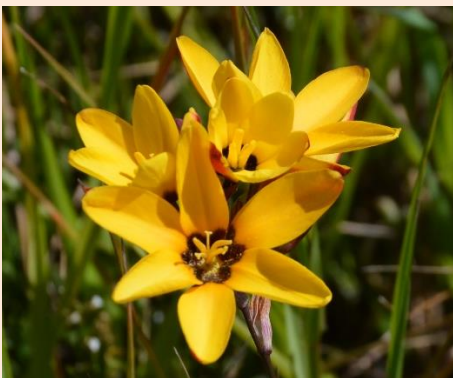


Figure 5 *Baeometra uniflora*



Figure 6 *Lampranthus glaucus*

Below is a map showing the habitat condition of MRC as surveyed in 2017. As you will see below, a large area of MRC is in a natural or near natural state, which is part of the reason why the Reserve is an important biodiversity site, it holds a pocket of pristine Cape Flats Sand Fynbos.



Figure 7 Habitat condition map of the Milnerton Racecourse section of Table Bay Nature Reserve, as surveyed in August 2017. Purple (5) = natural, red (4) = near-natural, orange (3) = degraded, mustard yellow (2) = heavily modified and yellow (1) = irreversibly modified habitat condition

Cape Flats Sand Fynbos is a fire-driven ecosystem and the role of fire in fynbos is an essential ecological component to maintaining biodiversity. Fire management involves reconciling ecological appropriate fire frequencies by burning in the correct season to mimic summer fires and at a veld age that supports biodiversity. Too frequent fires, fires which burn out of phase of the natural burning regime, present a threat to slower-growing species, which can be eliminated. If fire is excluded from the area, other unwanted species can invade and result in loss of biodiversity. Conversely, if vegetation is allowed to burn too frequently, the area becomes degraded and alien species invade, especially grasses, which results in the loss of biodiversity value. Prescribed ecological burning of vegetation is a management option in areas where vegetation becomes senescent and there is a risk of species loss. The objective of fire within MRC is to create a mosaic of vegetation age classes and successional stages within the Conservation Area to maximize representation of species at any given time. Fire will be managed for maintaining biodiversity, restoring degraded vegetation and other ecological functions such as the reduction of some alien invasive plant species.

Objectives for ecological burning within MRC:

- Removal of ageing vegetation/ insect infestation including fuel load reduction
- Stimulate the germination of soil-stored seeds
- Prevent local extinction of plant species (maintain biodiversity)
- Create a mosaic of different vegetation ages within MRC (promoting veld heterogeneity)



Figure 8 *Lycium afrum*

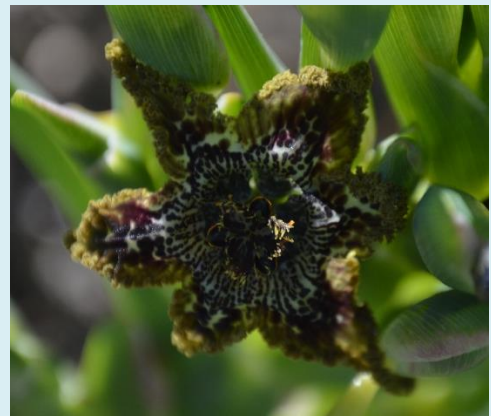


Figure 9 *Ferraria crispa* subsp.

Preparing for the ecological burn

In preparation of the ecological burn and as part of restoration, seed collection was conducted in January and February. Seeds were harvested and sent for cleaning and smoking. The seeds need to be smoked because Fynbos is a fire-driven ecosystem and the seeds are only activated for germination once they have gone through the process of fire.



Figure 10 Collecting seed.



Figure 11 Collecting seed.

The seeds will be sown back into the burn block once the ecological burn has been conducted. It is preferred that seeds be sown into the ground during the wet months of the year, of which, in this case, seeds will be sown in the months of May/June.

Fire breaks of width 10 m were cut on the southern and western boundaries of the proposed burn block. The northern and eastern boundaries of the proposed burn block had a fire break of width 2 m cut because the two 4-meter-wide cinder and sand tracks will act as fire breaks.



Figure 12 Proposed burn block shown on the map in orange.



Figure 13 Team cutting the fire break in preparation of the ecological burn.



Figure 14 Cutting the fire break in preparation of the ecological burn.