

# CAPE TOWN'S UNIQUE BIODIVERSITY: SPECIES

## Cape Town has a rich biodiversity!

Number of species in the city:

- 3350 Plants (190 endemic)
- 364 Birds
- 83 Mammals
- 60 Reptiles
- 27 Amphibians (2 endemic)
- 8 Freshwater Fish
- ? Invertebrates
- (Unknown but more than 140 endemic)

### Saved from the brink

#### Rondevelei Spiderhead (Protea Family)



- Saved when the last plant was discovered!
- Fortunately this species is not self-sterile and so can set seed. Many other species cannot breed when there are too few individuals left (the "living dead"). Such species must be cloned, and have no ecological future. Quickly propagating a species to many individuals helps prevent inbreeding which otherwise could rapidly result in extinction.

*By comparison, the entire United Kingdom has a total of 1200 plant species and 67 endemic plant species*

### CAPE TOWN IS EXPERIENCING A BIODIVERSITY CRISIS:

- 13 species of plants are **GLOBALLY EXTINCT**
- 319 species of plants are **THREATENED WITH EXTINCTION**
- 19 species of vertebrates are **THREATENED WITH EXTINCTION**

### Gone forever

#### Wynberg Conebush (Protea Family)

- Last seen in 1807 in Hibberts Garden in England!
- This drawing is the only evidence that it ever existed.
- Some eight other species are extinct forever due to development.



### Saved by botanical gardens

#### Whorled Heath (Heath Family)

- Picked and built on – extinct in the 1950s.
- Rediscovered in five botanical gardens.
- Returned to the wild at Rondevlei, Kenilworth and Tokai.
- Three other species extinct in the wild are being bred at Kirstenbosch National Botanical Garden for reintroduction into the wild.
- The destruction of lowland Fynbos and Renosterveld is leaving species homeless. The only way to conserve them is to keep their habitat. Zoos and botanical gardens are simply not enough to maintain their genetic diversity.



### Habitat loss is the greatest threat

#### Winecups (Iris Family)



- Endangered with extinction.
- Occurs in Shale Renosterveld.
- Two thirds of our plant species are threatened by habitat transformation (mainly agriculture and urbanisation).
- 10 of our veld types and wetlands – the homes to our plants and animals – are Critically Endangered.

### Multiple threats

#### Geometric Tortoise



- Endangered with extinction.
- Occurs in Alluvium Fynbos.
- Habitat loss due to agriculture and alien plant invasion has drastically reduced the home of this species. It survives mainly in a few reserves specially created to protect it and its food plants.

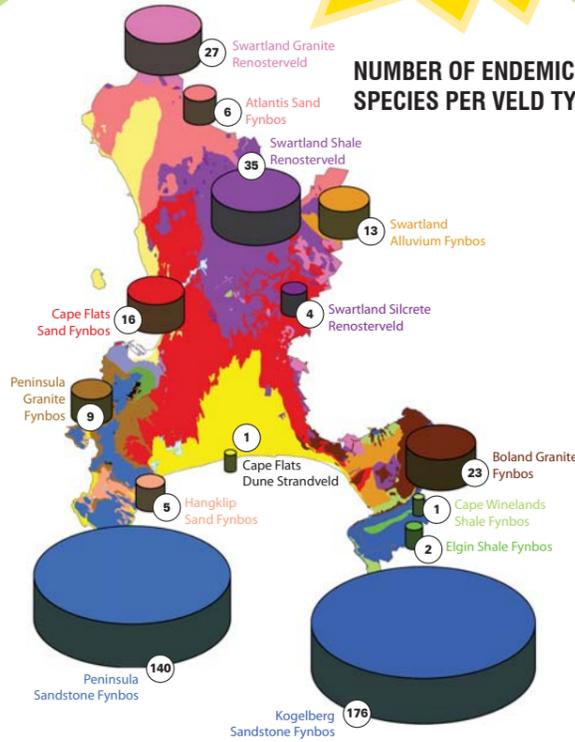
### Gardens conserve too

#### Western Leopard Toad

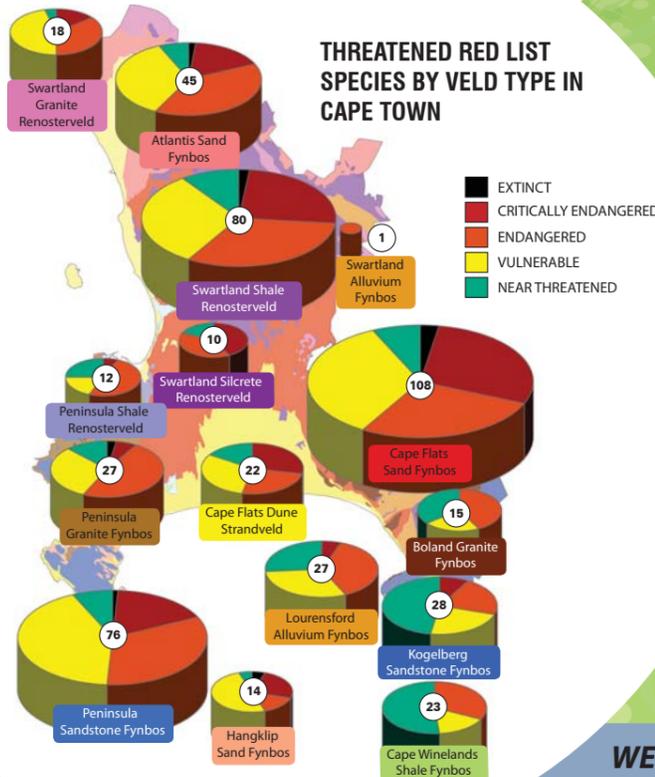


- Some animal species rely on urban gardens in order to survive.
- This Endangered toad lives for 11 months in gardens, migrating to breeding ponds in August for a few days. Urban areas can play an essential role in conservation.

### NUMBER OF ENDEMIC SPECIES PER VELD TYPE



### THREATENED RED LIST SPECIES BY VELD TYPE IN CAPE TOWN



### Naturally rare: a local endemic

#### Table Mountain Ghost Frog

- Only found in three kloofs on Table Mountain.
- Many species have really small distribution ranges – as small as a single suburb in Cape Town. It is these local endemic species that are most threatened by habitat loss.
- Did you know that seven species of frog are on the City's threatened Red List?



### Living dead?

#### Kraaifontein Spiderhead (Protea Family)

- The last three plants of this species at North Pine were destroyed by mowing. A single plant survives in the wild.
- Its entire habitat has been destroyed.
- Although cultivated at Kirstenbosch National Botanical Garden, there is no suitable site for its conservation. It is hoped that the Bracken Nature Reserve can conserve it; but what if it can't? How will we conserve this species and its symbionts?

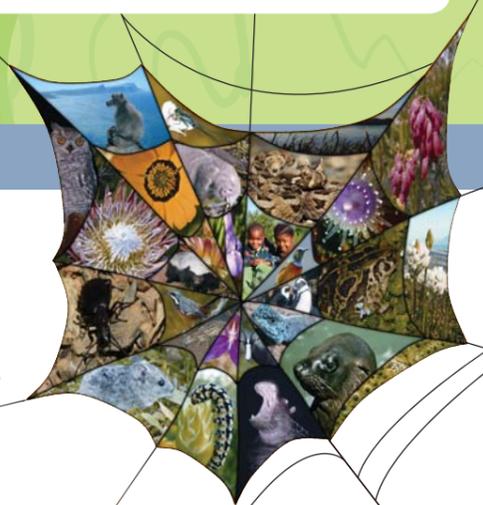


### CONSERVATION IS ABOUT GENES

Genetic diversity is essential for maintaining healthy and resilient populations. Viable genetic populations must be conserved in the wild, seed banks and gene banks can only serve as a backup. Let's hope we never get to a stage when that is all we have left.

### WEB OF LIFE

In nature everything is linked. If you take out one part, you may impact the whole system. Plant species need their pollinators, seed dispersers, predators, and associated fungi and bacteria in order to survive. Animal species need their gut bacteria, food plants, parasites and symbionts. Just as we need the animals and plants for our survival. Everything needs to be conserved together - you can't conserve bits and pieces.



## We have an international biodiversity crisis in our back yard. WHAT ARE YOU DOING ABOUT IT?

For more information on the veld types, their conservation, a glossary of terms and how you can help visit [www.capetown.gov.za/environment](http://www.capetown.gov.za/environment), go to "Publications" then "Brochures & Booklets" and select "Fact sheets on Cape Town's unique biodiversity".