

CAPE TOWN'S UNIQUE BIODIVERSITY PLANTS AND ANIMALS

7. Endemic species

General: Endemic species are extra special. 'Endemic' means that they occur nowhere else on earth, and species endemic to Cape Town are confined to within the city's borders. They have to be conserved and managed within Cape Town, otherwise they will become globally extinct forever. Of course, there are many other species that should be conserved in Cape Town, but often they can be conserved just as well or better elsewhere. Endemic species do not have this luxury – Cape Town is their only home on earth. Cape Town has an unusually high number of endemic species, and we have the sole responsibility to preserve them.

Plants: It is estimated that there are about 3 400 indigenous plant species in Cape Town. This is exceptional, as, for example, the entire United Kingdom has only just over 1 200 native plant species – less than the number on the Cape Peninsula. Of these species, 190 are known to be endemic to Cape Town.

Vertebrates: There are only two known vertebrates endemic to Cape Town and both of these are frogs: the Table Mountain Ghost Frog and the Cape Peninsula Moss Frog. (Cape Town is home to a total of 27 amphibian species.)

Invertebrates: We have no idea how many insects, spiders and other invertebrates are indigenous to Cape Town. As far as we know, nobody has ever tried to list all indigenous invertebrates in the city.

The following are known to be endemic to the Cape Peninsula:

Spiders and scorpions	31 species
Millipedes and centipedes	21 species
Beetles	17 species
Crustaceans	17 species
Earthworms	12 species
Bugs	10 species
Flies	7 species
Cockroaches	5 species
Bristletails	4 species
Caddisflies	4 species
Snails and slugs	4 species
Velvetworms	2 species
Butterflies	2 species
Fishmoths	2 species

Near endemics: Although we have so many endemic species, the number of species that need to be conserved in Cape Town is far higher. This is because many species are not confined to Cape Town, but have most of their distribution here. Examples include the Black-girdled Lizard, Western Leopard Toad, Cape Platanna, Cape Rain Frog, and hundreds of plant species.

Where do the endemics occur? We do not have good data of where our endemic species occur. For plants, the following veld types are especially rich in endemic species (although not all of them are confined to Cape Town).

Kogelberg Sandstone Fynbos	176 species
Peninsula Sandstone Fynbos	140 species – <i>all city endemics</i>
Swartland Shale Renosterveld	35 species
Swartland Granite Renosterveld	27 species
Boland Granite Fynbos	23 species
Cape Flats Sand Fynbos	16 species – <i>all city endemics</i>
Swartland Alluvium Fynbos	13 species
Peninsula Granite Fynbos	9 species – <i>all city endemics</i>

Threats: Threats vary between different groups of species. Plants are most threatened by agriculture, urbanization, invasive alien plants, and fire. Most groups are probably affected by these same threats. Butterflies and scorpions are threatened by illegal collecting as well. For some groups, we have little idea of the threats. For example, is the European Earthworm, which was imported for the compost industry, threatening our indigenous earthworm species?

Where conserved? Most species are best conserved in nature reserves, but some animal species are perfectly at home in urban environments. The Western Leopard Toad, for example, is far more common in gardens than in the wild, and thrives in green gardens with compost heaps and little or no pesticide use. Unfortunately,



Tony Rebelo

**Rondevlei Spiderhead (Protea Family)
Saved when the last plant was discovered!**

many species can only be conserved in nature reserves as they require fire, pollinators and other conditions that are not met outside of their natural ecosystem. The problem with conserving species in botanical gardens and amateur collections is that once domesticated species are very difficult to rehabilitate into the wild. *Ex situ* conservation outside nature reserves is thus a last resort for species that have had their entire habitat destroyed.



Nigal Forshaw

**Fairy Heath (Heath Family)
Only found on the mountains above Simonstown**



Clifford Doirse

**Table Mountain Ghost Frog
Only found on Table Mountain**



Millennium Seed Bank

Whorled Heath (Heath Family)
 Picked and built on – extinct 1950s
 But discovered in 4 botanical gardens in this century.
 Returned to the wild at Rondevlei, Kenilworth & Tokai

For more information, an explanation of terms, a list of endemics, and copies of fact sheets, visit www.capetown.gov.za/environment; go to "Publications", and select "Brochures, booklets and posters".



Google

Wynberg Conebush (Protea Family) was endemic to Peninsula Granite Fynbos and was last recorded in 1805



Tony Rebelo

Constantia Heath (Heath Family)
 One of 15 species of *Erica* confined to the City



Clifford Dorse

Good Hope Lady (Iris Family)



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