

DIVERSITY, CHANGE, and CONTINUITY

BIODIVERSITY

SCIENTIFIC CLASSIFICATION

HISTORY of LIFE on EARTH



BIODIVERSITY



BioDiversity refers to how many different kinds of living things are found in an area.

With every plant or animal that becomes **extinct**, so your **Diversity** of living things (**Bio**) gets smaller.

EcoSystem Diversity = how many different ecosystems your country has. (South Africa has as many as **seven** different Biomes! – Yay for us!)

Species Diversity = how many different species of living things (plants and animals) are in that EcoSystem.

Genetic Diversity = how many different types of that particular plant or animal there are. Like types of dogs.

BIODIVERSITY in SOUTH AFRICA

Only two countries in the world have better BioDiversity than us. This includes species of different plants, animals, birds, reptiles, fish, amphibians, and insects.

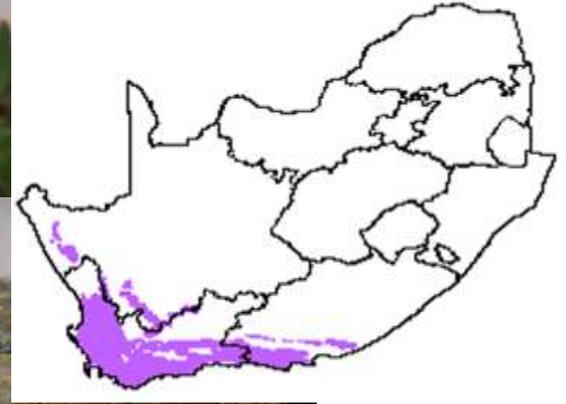


- Indigenous species of plants and animals live where nature put them originally. They fit into that ecosystem and are a part of it.
- Alien species of plants and animals are **exotic** to that area. Nothing eats them, so they easily take over by out-competing the indigenous species.
- Endemic species of plants and animals are indigenous, and are found **only** in a specific area – **nowhere** else in the world! There are three areas like this in South Africa, and all three are in danger of facing extinctions. We call them our **BioDiversity HotSpots**:

OUR THREE BIODIVERSITY HOTSPOTS

- CAPE FLORAL

This is (simply) our FynBos region.



- SUCCULENT KAROO

We studied this Biome as well. It has more succulent plants in it than any other place in the world - $\frac{1}{3}$ of them endemic to this area alone.



- MAPUTO – PONDOLAND – ALBANY

This is a temperate forest region on our North-East coast, with many endemic trees and plants.



4. Diversity, Change and Continuity

A. Biodiversity

Question 1

1. It is the variety of plant and animal life in the world or in a particular habitat.
2. Ecosystem diversity – refers to the number of different types of ecosystems within a particular area, for example within a biome, or a country.

Species diversity – is the number of different species living within a particular ecosystem, biome or country.

Generic diversity – refers to the variations of genes within a single species.

Question 2

- Hotspots are areas which have great biodiversity and high levels of species endemism, but are vulnerable or threatened by destructive human activities.
- Pie graph
- Fynbos + Succulent-Karoo
- Fynbos
 - 6,7%
 - It has one of the greatest levels of biodiversity in the world and 70% of its plant species are endemic/ only found in that region.
- Insufficient water to support many plants.
- Species that occurs naturally in a particular area
 - Species that only occurs in a particular area

