



What is Biodiversity

Biodiversity is the variety of life in the world or in a particular habitat or ecosystem.

Humans have identified and described

2 Animal
Species
Million

435k Land Plant
Species

The true number of animal species is unknown. The most widely-cited estimate is **8.7 million** species.



An Ecosystem is a geographic area where plants, animals, and other organisms, as well as weather and landscapes, work together to form a bubble of life.

Joshua Tree Desert Ecosystem



Redwood Forest Ecosystem



Pacific Tide Pool Ecosystem



It is useful for us to understand the species of the world categorized into their ecosystems. This variety of different habitats, communities and ecological processes is called **Ecosystem Diversity**.

Joshua Tree Desert Ecosystem



Desert Kit Fox



California Fan Palm



Beavertail Cactus



Joshua Tree



Mojave Aster



Greater Roadrunner



The variety of species in a specific ecosystem is referred to as **Species Diversity**.

An Ecosystem like the Amazon Rainforest has a far greater diversity of species than an ecosystem like the Arctic Tundra.

Amazon Rainforest Ecosystem



Arctic Tundra Ecosystem



Why do you think there are more plant and animal species in the Amazon than in the Arctic?

Within a single species, there can be variations in characteristics of the plant or animal.
This is called **Genetic Diversity**.



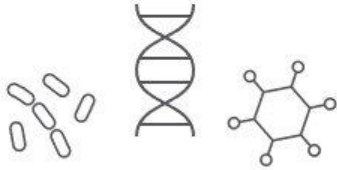
Genetic Diversity of Corn



Genetic Diversity of Cats

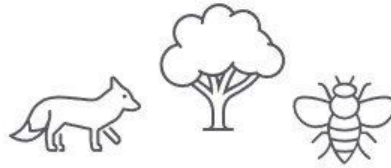
3 TYPES OF BIODIVERSITY

The Variety of life on Earth



Genetic Diversity

Variety of genes and traits available within a species



Species Diversity

Variety of species within an ecosystem



Ecosystem Diversity

Variety of ecosystems in an area of land or water

