

# What is Biodiversity?

Over the last 200 years, Australia has suffered the most significant documented decline in biodiversity of any continent. But, what is biodiversity anyway?

Biodiversity is the variety of all living things on earth. That is a pretty broad topic to sum up, with millions of different species of plants and animals, billions of different individuals all with trillions of different characteristics. Biodiversity can be broken down into three levels.



## Genetic Diversity

Genetic diversity is the variety or differences between individuals of the same species.

These differences come from our DNA, our genetics, and are essential when we think about disease prevention or crop productivity. Some individuals of a group of merino sheep may grow super fine wool; or, some hummingbirds may be resistant to a specific disease.



## Species Diversity

Species diversity is the variation among different species. This can be measured with species abundance or species richness.

Species abundance is a measurement of how many individuals of a single species occur in a location.

Species richness is the number of different species in a location.



## Ecosystem Diversity

Ecosystem diversity is the variety of habitats, communities and ecological processes that occur within an ecosystem.

**Remember:** any measurement of biodiversity is not a static measurement. Biodiversity changes based on external factors such as invasive species introduction, changes to the aquatic environment, and the loss or fragmentation of habitat.

