

What is classification?

Classification is the organising or sorting of organisms into groups according to their characteristics. These may include body form, colour pattern, mode of development or genetics. The classification of organisms is referred to as taxonomy. Natural Science Museums are the 'basis' of taxonomy, where new species are described and named, and research on the classification of organisms is carried out.

When classifying organisms, taxonomists use the following framework:

- Kingdom
 - Phylum
 - Class
 - Order
 - Family
 - Genus
 - Species

Why is classification important?

Classification makes it easier to identify, describe and remember species. Since there are thousands of marine organisms described from Australian waters alone, and more new species are being discovered every year, the use of an international classification system is extremely important.

Classification is used for the scientific naming, identifying, describing of individuals, determining relationships between groups and their evolutionary links – increasing the understanding of the biodiversity and ecology of all flora and fauna. Such information is essential for the planning and protection of biodiversity for the future.



Classification continued...

Five Kingdom System of Classification

The five kingdom system of classification is the most accepted system of modern classification. The five kingdoms include:

ANIMALIA

Includes all multicellular organisms that feed by the ingestion of food particles.

PLANTAE

Includes mosses, ferns, conifers and flowering plants. Using energy from sunlight, they produce their own food from carbon dioxide and water.

FUNGI

Includes fungi and lichens. They break down food externally and absorb the nutrients.

PROTISTA

Includes organisms with a variety of life cycles and appearances.

They can be broadly divided into:

- Heterotrophic protists, which ingest food particles e.g. protozoans.
- Autotrophic protists, which produce their own food e.g. algae.

MONERA

Includes bacteria, prokaryotes and cyanobacteria. These are generally simple microscopic single celled organisms.