

A diverse world

A How did biodiversity [evolve](#)?

Up to the year 2008, scientists described around 1.7 million species, including about:

950,000	species of insects
300,000	species of plants
30,000	species of fish
15,000	species of reptiles and amphibians
10,000	species of birds
5,000	species of mammals

The rest includes, for example, [molluscs](#), worms, spiders, [fungi](#), and microorganisms. New species are discovered every day. In 2006, 16,969 new species were discovered.

But how did this diversity evolve?

Through natural [selection](#), organisms that are better [adapted](#) to their environment than other members of their species [survive](#) longer and therefore produce more [offspring](#). This means that changes in the genetic material produce a new species over many, many generations.

A new species is formed when a population changes so strongly that it can no longer reproduce with other members of the original species. This [occurs](#), for example, when populations of a species are separated geographically, as during the last ice ages. Enormous [glaciers](#) split the habitat of many species. The populations lost contact with one another and evolved into different species.

This also happened in the early history of the earth when continents and islands [split off](#) from one another. New species are usually formed when the environmental [conditions](#) for a plant or animal change [significantly](#).

For a large number of species it took around 3.5 [billion](#) years to evolve from the [primeval](#) life forms on our planet to their present form.

