



Fast Facts about Biodiversity

- Biodiversity can be measured on three levels:
Species diversity (the sheer variety of living things, from microscopic bacteria and fungi to towering redwoods and enormous blue whales)
Ecosystem diversity (tropical rainforests, deserts, swamps, tundra, and everything in between)
Genetic diversity (the variety of genes within a single species, which give rise to the variations that cause species to evolve and adapt over time)
- Tropical ecosystems support higher levels of biodiversity than temperate or boreal ecosystems. **Tropical rainforests and coral reefs** are the most diverse ecosystems on the planet. 50-90% of Earth's plant and animal species are found in tropical regions. (World Resources Institute)
- Biodiversity "hotspots" are areas of the world with a **high number of endemic species** (that is, species found only in that place).
- Over 50% of the world's plant species and 42% of all terrestrial vertebrate species are native to a specific country and do not naturally exist elsewhere. (Conservation International)



Taxonomists--biologists who specialize in identifying and classifying life on the planet--have **named approximately 1.7 million species** about 13,000 more species are added to the list of known organisms. (National Wildlife Magazine)

In 1980, in the tropical rainforests of Panama, scientists discovered 1,200 species of beetles living in and around just 19 trees... and fully **80% of these species were previously unknown to science**. (Equator Initiative)

Approximately **half of all synthetic drugs** have a natural origin, including 10 of the 25 highest-selling drugs in the US. (Equator Initiative)

- The greatest species diversity is found among the invertebrates. Invertebrates are animals without backbones, including insects, crustaceans, sponges, scorpions and many other kinds of organisms. Over **half of all the animals already identified are invertebrates**. Beetles are some of the most numerous species.
- Scientists know the least about the diversity of **microscopic organisms** such as bacteria and protozoa. Microorganisms may be tiny, but they are tremendously important, forming the base of the food chain and playing many other roles in ecosystems.
- Based on data on recorded extinctions of known species over the past century, scientists estimate that current rates of species extinction are **about 100 times higher than long-term average rates** based on fossil data. (Encyclopedia of Earth: Biodiversity)