

**biological diversity (biodiversity):** The variety of life across all levels of biological organization, including the diversity of species, genes, populations, and communities.

**species:** A population or group of populations of a particular type of organism whose members share certain characteristics and can breed freely with one another and produce fertile offspring.

**species diversity:** The number and variety of species in the world or in a particular region.

**genetic diversity:** A measurement of the differences in DNA composition among individuals within a given species.

**ecosystem diversity:** The number and variety of ecosystems in a particular area. One way to express biodiversity. Related concepts consider the geographic arrangement of habitats, communities, or ecosystems at the landscape level, including the sizes, shapes, and interconnectedness of patches of these entities.

**bioprospecting:** Searching for organisms that might provide new drugs, medicine, foods, or other products of value or interest.

**biophilia:** An inherent love for and fascination with nature and an instinctive desire people have to affiliate with other living things. Defined by biologist E.O. Wilson as “the connections that human beings subconsciously seek with the rest of life.”

**extinction:** The disappearance of an entire species from Earth.

**extirpation:** The disappearance of a particular population from a given area, but not the entire species globally.

**background extinction rate:** The average rate of extinction that occurred before the appearance of humans. For example, the fossil record indicates that both birds and mammals, one species in the world typically became extinct every 500-1000 years.

**mass extinction events:** The extinction of a large proportion of the world’s species in a very short time period due to some extreme and rapid change or catastrophic event. Earth has had five in the past half-billion years.

**Red List:** An updated list of species facing unusually high risks of extinction. The list is maintained by the World Conservation Union.

**habitat fragmentation:** The process by which an expanse of natural habitat becomes broken up into discontinuous fragments, often as a result of farming, logging, road building, and other types of human development and land use.

**poaching:** The illegal killing of wildlife, usually for meat or body parts.

**conservation biology:** A scientific discipline devoted to understanding the factors, forces, and processes that influence the loss, protection, and restoration of biodiversity within and among ecosystems.

**Endangered Species Act:** The primary legislation, enacted in 1973, for protecting biodiversity in the United States, it forbids the government and private citizens from taking actions (such as developing land) and would destroy threatened and endangered species or their habitats, and it prohibits trade in products made from threatened and endangered species.

**endangered:** In danger of becoming extinct in the near future.

**threatened:** Likely to become endangered soon.

**Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES):** A 1973 treaty facilitated by the United Nations that protects endangered species by banning the international transport of their body parts.

**Convention on Biological Diversity:** A 1992 treaty that aims to conserve biodiversity, use biodiversity in a sustainable manner, and ensure the fair distribution of biodiversity's benefits.

**captive breeding:** The practice of keeping members of threatened and endangered species in captivity so that their young can be bred and raised in controlled environments and subsequently reintroduced into the wild.

**forensic science:** The scientific analysis of evidence to make an identification or answer a question relating to a crime or an accident.

**biodiversity hotspot:** An area that supports an especially great diversity of species, particularly species that are endemic to the area.

**community-based conservation:** The practice of engaging local people to protect land and wildlife in their own region.