

background extinction: without human and environmental stress, the average number of species (including all organisms), per million species, that disappear each year; in the fossil era, the background extinction rate was 10 to 100 species per year.

bioaccumulation: the build-up of harmful chemicals in organisms after uptake from the environment. Bioaccumulated toxins can affect entire ecosystems due to the interconnectedness of food webs.

biodiversity: the variety of life on Earth from the level of genes to ecosystems. It can also include the evolutionary, ecological, and cultural processes that sustain life.

biomes: the Earth's major ecological communities, classified according to predominant vegetation and animals that have evolved to live there.

chlamydia: a sexually-transmitted bacterial infection that affects humans and other animals such as birds, mammals and reptiles. In all species, the disease can seriously damage the reproductive system, leading to infertility, sterility, abortion, inflammation, and influenza-like symptoms.

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): an international agreement between countries to ensure trade in wild animals and plants doesn't threaten species' survival. CITES lists species according to the degree of protection they need, and limits international trade accordingly.

clearcutting: cutting and removing all trees from an area of forest.

dead zone: an area of oxygen-depleted water uninhabitable for fish, caused by eutrophication.

deforestation: the loss of forest due to overcutting of trees.

ecosystem: a community of living organisms that interacts with each other and their physical environment.

ecosystem services: the life-sustaining benefits provided by nature that are necessary for environmental and human well-being.

endangered species: a species that is at risk of becoming extinct.

Endangered Species Act: a 1973 law providing broad protection for species of fish, wildlife, and plants that are listed as threatened or endangered in the U.S. or elsewhere. Provisions are made for listing species, as well as for recovery plans and the designation of critical habitat for listed species. Also the enabling legislation for the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

estuary: a body of water where freshwater from rivers and streams mixes with salt water from the ocean. Estuaries are some of the most productive environments on Earth, boasting high levels of plant and animal diversity.

eutrophication: a flourishing of algal blooms that depletes the water's dissolved oxygen, suffocating marine life and potentially causing human disease.

extinction: the disappearance of a species or population.

H.I.P.P.O.: a mnemonic device for the greatest threats to biodiversity: Habit Loss, Invasive Species, Pollution, Human Population and Overharvesting.

indicator species: a species whose presence or absence reveals a characteristic of its environment, such as soil quality or climate change. These species are generally more sensitive to change and thus can provide early warnings of ecosystem disruptions.

invasive species: a species not originally from an ecosystem, whose introduction adversely affects its new environment.

IUCN Red List of Threatened Species: a list that provides a framework to classify species according to their extinction risk. Its primary goal is to identify and document the species most in need of conservation attention and to provide an index of the state of degeneration of biodiversity.

keystone species: a species whose existence plays a large role in the survival of other species although it may have only a small presence in the ecosystem, and whose absence could result in major ecosystem upheaval.

mass extinction: a significant global rise in species extinction rates above background levels in a geologically short time period. There have been five mass extinction events in Earth's history, and many scientists believe we are witnessing the sixth today.

microhabitat: a smaller part of a larger ecosystem that encompasses the specific biotic and abiotic conditions in an organism's immediate vicinity.

observed extinction rate: the number of species documented as extinct by scientists over a certain period of time.

poaching: the illegal hunting and killing of wildlife.

predation: the act of one organism (the predator), killing and consuming another (the prey).

salmonella: a group of bacteria that is transmitted to humans from contaminated food. Symptoms include diarrhea, fever, abdominal cramps, and vomiting. Infection is preventable by properly refrigerating and cooking foods, and avoiding unpasteurized milk products.

top predator: a species at the top of their "food chain" who, as a key predator, plays an important role in ecosystem balance.

tropical rainforest: a large, dense forest which grows near the equator, between the Tropic of Capricorn and the Tropic of Cancer, that receives 4-8 meters of rain each year.

umbrella species: a species requiring a large area of habitat, whose preservation helps foster the survival of many other species in the ecosystem.

wetlands: an area of land saturated with water (salt, fresh or in between) for all or parts of the year, such as marshes, estuaries, peatlands, rivers, and flooded forests. Wetlands act as water filters, control floods and erosion, and serve as habitat for a variety of plant and animal species among other essential ecosystem services.