

Chapter 10: Biodiversity

Section 1, What is Biodiversity?

A World Rich in Biodiversity

- _____ short for biological diversity, is:
 - the _____ of organisms in a given area
 - the _____ within a population
 - the variety of _____ in a community
 - the variety of _____ in an ecosystem.
- Certain areas of the planet, such as _____, contain an extraordinary variety of species.

Unknown Diversity

- The number of species known to science is about _____, most of which are _____.
 - Actual number of species on Earth is _____.
- New species are considered known when they are _____ scientifically.

Levels of Diversity

- Biodiversity can be studied and described at three levels:
 - _____
 - _____
 - _____
- Species diversity refers to all the _____ between populations of species, as well as between different species.
- Ecosystem diversity refers to the _____ of habitats, communities, and ecological processes within and between ecosystems.
- Genetic diversity refers to all the _____ contained within all members of a population.
- A _____ is a segment of DNA that is located in a chromosome and that code for a specific hereditary trait.

Benefits of Biodiversity

- Biodiversity can affect the _____ of ecosystems and the _____ of populations.

Species Are Connected to Ecosystems

- Every species is probably either _____ upon by at least one other species in ways that are not always obvious.
- A _____ is a species that is critical to the functioning of the ecosystem in which it lives because it affects the survival and abundance of many other species in its community.
- An example is the _____.

- _____ increases the chances that some members of the population may survive environmental pressures or changes.
- _____ are less likely to survive such pressures.

Species and Population Survival

- When a population shrinks, its genetic diversity _____ as though it is passing through a bottleneck.
- The members of the population may then become more likely to _____ genetic diseases.

Medical and Industrial Uses

- About _____ of the drugs prescribed in the United States are derived from plants, and almost all of the antibiotics are derived from chemicals found in _____.

Agricultural Uses

- Most of the crops produced around the world originated from a few areas of _____ biodiversity.
- Most new crop varieties are _____, or crops developed by combining genetic material from other populations.

Ethics, Aesthetics, and Recreation

- _____ is a form of tourism that supports the conservation and sustainable development of ecologically unique areas.