



Biodiversity

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What is Biodiversity?

- The variety of life in the world or in a particular habitat or ecosystem

3 Main Types

- > *Ecosystem* Diversity (variety within certain areas)
- > *Species* Diversity (variety of species within area)
- > *Genetic* Diversity (like different breeds of dogs)



Why we need Biodiversity

- Essential for the process that supports all life on Earth.
- Biodiverse ecosystems provide nature-based solutions against things like floods, storms, filtering our water, and regenerating our soil.
- Provides oxygen, clean air and water, pest control, medicine, and recreation.
- Biodiversity fights climate change!
- Protecting habitats helps endangered animals to recover.

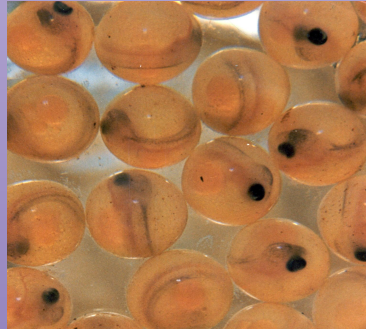
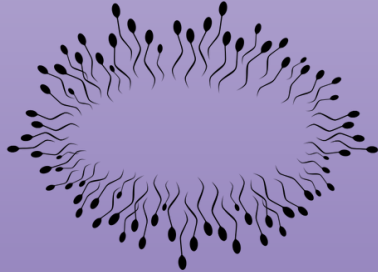


Germ Plasm

One way to save the essence of a species is by preserving its genetic makeup. Or, it's Germ Plasm. This is **any form of genetic material, such as that contained within the reproductive, or germ cells of animals and plants.**

Can be used in the future for research or species recovery efforts.

Materials may be stored as seeds, sperm, eggs, or pure DNA.



Endangered Species Act

In 1973, the U.S. congress passed the Endangered Species Act.

Designed to **protect plant and animal species in danger of extinction.**

The U.S. Fish and Wildlife service must create a list of endangered species. They must, then, protect those species from human harm. Subject to fine anyone who harms, buys, or sells any part of such species. Also, the federal government is unable to carry out any project that jeopardizes the species.



Habitat Conservation Plan

A plan that attempts to protect one or more species across large areas of land through trade-offs or cooperative agreements.

The region of San Diego, California is part of a habitat conservation plan.



Biodiversity Treaty

- International agreement
- The treaty's goal is to **preserve biodiversity and ensure the sustainable and fair use of genetic resources in all countries.**
- The treaty took many years to be adopted as U.S. law. Politicians objected against it, especially the the suggestion that economic and trade agreements should take into account any impacts on biodiversity that may result from the agreements.



