

Sustaining Biodiversity: Saving Speices and Ecosystem Services

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October 18, 2021— Period 1

1. Biological Extinction — No species members are left alive
2. Trophic Cascade — Addition or elimination of the top predator causes a cascade effect down the trophic levels
3. Background Extinction Rate — One extinction of species per year per million species
4. Endangered Species — Species of animal or plant that is seriously at risk of extinction
5. Threatened Species — Vulnerable to endangerment
6. Regionally Extinct or Local Extinction — Extinct in specific areas
7. Functionally Extinct — Some individuals remain, however, the species can no longer play a functional role in the ecosystem
 - Ex. Old growth redwood trees; Abalone
8. Biodiversity Hotspots
 - Biogeographic regions that are a reservoir of biodiversity, but is threatened with destruction
 - Extinction rates projected to be much higher than average
 - Biologically diverse environments are being eliminated or fragmented
9. The 6 Top Threats to Species: HIPPCO
 - Habitat destruction, degradation, and fragmentation
 - Invasive (non-native) species
 - Population and resource use growth
 - Pollution

- Bioaccumulation can cause extinctions of species not directly affected by pollution
- Climate Change
- Overexploitation
 - Poaching and smuggling of animals and plants
 - * Animal parts
 - * Pets
 - * Plants for landscaping and enjoyment
- 10. Habitat Fragmentation — Large intact habitat divided by roads, crops, and urban development
- 11. National parks and nature reserves are habitat islands
- 12. Invasive (non-native) species
 - There are 7,100 harmful invasive species that have been deliberately or accidentally introduced into the United States