

Chapter 10 Section 3 Notes

It's often difficult to save individual species because:

- small populations are prone to disease
- inbreeding may result in genetic disorders
 - Members of a population may be more prone to inherited genetic diseases if inbreeding takes place frequently within the population.
- captive species may not reproduce in the wild

Captive-Breeding Programs - method used to attempt to restore the population of a species in the wild; program that has helped return threatened species to the wild.

- The California condor is a species that has been bred in captivity and returned to the wild

Preserving Genetic Material

- germ plasm – the genetic material of a species
- germ-plasm banks – preserving genetic material (seeds, DNA, and sex cells)

Preserving Habitats and Ecosystems –

habitat conservation – protecting critical habitats and ecosystems

Reasons for preserving biodiversity:

- isolating unique genetic material so it can be incorporated into existing crops
- increasing the chances of discovering organisms with medicinal value
- finding new plants that can supplement the world's food supply

Conservation Strategies –

- sustainable land use – growing crops among native plants instead of on cleared land
- prohibiting land development
- Preserving entire ecosystems rather than individual species is a good conservation strategy because more than one species can be saved.

Legal Protection for Species

legal protection – laws and regulations to protect endangered species

- Major provisions of the Endangered Species Act
 - products of endangered or threatened species may not be sold or traded
 - lists of threatened or endangered species must be prepared
 - a species recovery plan must be created
 - government projects may not further endanger endangered species
- Recovery and Habitat Conservation Plans
 - habitat conservation plan – designed to protect groups of species by managing lands in a protected area.

International Cooperation - Cooperative efforts to prevent extinction include: Biodiversity Treaty, Earth Summit, worldwide ban on trade in ivory.

- The CITES treaty reduced the slaughter of elephants because it banned the imports and exports of all ivory worldwide.
- The Biodiversity Treaty - ensures the sustainable and fair use of genetic resources in all countries