

Module 2 Study Guide: Biodiversity

Key Terms

- **Biodiversity:** Variety of life
- **Genetic Diversity:** Variation within species
- **Species Diversity:** Variety of species
- **Ecosystem Diversity:** Variety of ecosystems
- **Ecosystem Services:** Benefits from ecosystems
- **Habitat Loss:** Destruction of natural habitats
- **Invasive Species:** Non-native harmful species
- **Overexploitation:** Excessive harvesting
- **Conservation:** Protection of biodiversity
- **Endangered:** At risk of extinction

Levels of Biodiversity

1. **Genetic:** Variation within species
2. **Species:** Number of different species
3. **Ecosystem:** Variety of ecosystem types

Ecosystem Services

- **Provisioning:** Food, water, materials
- **Regulating:** Climate, disease control
- **Cultural:** Recreation, aesthetics
- **Supporting:** Nutrient cycling

Major Threats

1. Habitat loss and fragmentation
2. Climate change
3. Invasive species

4. Overexploitation
5. Pollution

Conservation Methods

- Protected areas
- Species conservation programs
- Habitat restoration
- Sustainable practices
- Legal protection

Study Questions

1. What are the three levels of biodiversity?
2. Why is biodiversity important?
3. What are the main threats to biodiversity?
4. How can we conserve biodiversity?
5. What is the role of protected areas?

Practice

- Calculate biodiversity indices
- Identify threats to local species
- Design conservation strategies
- Evaluate ecosystem services