

**Interactions in Ecosystems  
Lecture Guide, DAY 1**

**Habitat versus Niche**

**Review!**

- What is a habitat?
  - All of the \_\_\_\_\_ in the area where an organism lives.
  - \_\_\_\_\_ ! ;
  - Examples: grass, trees, and watering holes!
- What is a niche?
  - Composed of all of the \_\_\_\_\_  
\_\_\_\_\_ that a species needs to survive
  - Niche includes: type of food a species eats, tolerating certain types of abiotic conditions, and a species' behavior.
  - \_\_\_\_\_ ;
  - Habitat is like an \_\_\_\_\_ in an ecosystem and a niche is like the \_\_\_\_\_ in an ecosystem.

**Resource availability**

- What is a community?
  - \_\_\_\_\_
- Example: \_\_\_\_\_

**Competitive Exclusion**

- One species will always be \_\_\_\_\_ to the environment.
- States that when two species are competing for the same resources, one species will be \_\_\_\_\_ to the niche, and the other species will be \_\_\_\_\_ another niche or become extinct.

**Other outcomes from competitive exclusion**

- \_\_\_\_\_ :
  - Divide resources based on competitive advantages
- \_\_\_\_\_ :
  - Different sizes of teeth could affect the way they eat

**Ecological equivalents**

- Are species that occupy similar niches but live in different \_\_\_\_\_.

- Both have the same niche in similar habitats, but \_\_\_\_\_ for the same resources because they live in different geographical regions. Examples: Mantella and poison dart frog

**Community Interactions**

- \_\_\_\_\_ are two important ways in which organisms interact.
- Competition occurs when two organisms \_\_\_\_\_.

**Competition**

- Two types of competition:
  - \_\_\_\_\_:
    - Competition between \_\_\_\_\_ species (competing for space)
    - Examples: \_\_\_\_\_
  - \_\_\_\_\_:
    - Competition between members of the \_\_\_\_\_ species
    - Examples: \_\_\_\_\_

**Predation**

- Process by which one organism \_\_\_\_\_ upon another organism.

- More Community Interactions

\_\_\_\_\_:

- Any relationship where two species \_\_\_\_\_ together and \_\_\_\_\_.

- 3 types:
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_

**Review Questions:**

1. Complete the table about factors that influence ecosystems.

Type of Factor	Definition	Examples
Biotic Factors		
Abiotic Factors		

2. When does competition occur?
3. What is a resource?
4. What is the competitive exclusion principle?
5. What is predation?
6. When predation occurs, what is the organism called that does the killing AND eating, and what is the food source called?