What are Community Interactions?

Worksheet

Community interactions are relationships between species in an ecosystem: competition (both harmed), predation (predator gains, prey loses), parasitism (parasite gains, host harmed), and mutualism (both gain).

Questions

1. A lion hunts and eats a zebra. This is an example of

A) competition
B) predation
C) parasitism
D) mutualism

2. Two species of insects both eat the same plant. This is an example of

A) predation
B) parasitism
C) competition
D) mutualism

3. A bird eats insects from an alligator's teeth (parasite removal) and gets food; the alligator's teeth stay clean. This is

A) parasitism
B) mutualism
C) predation
D) competition

4. Competitive exclusion occurs when

A) one species eats another
B) one species outcompetes another for resources
C) both species thrive together
D) parasites kill hosts

5. Two plant species grow in a forest. Species A can photosynthesize faster and grows taller, blocking sunlight from Species B. What type of interaction is this, and what is the outcome?

6. A tick attaches to a deer's skin, feeds on blood, and weakens the deer without killing it. What type of interaction is this?

7. A flowering plant produces nectar; a bee collects nectar (food) and pollinates the flower (helps reproduction). What type of interaction is this?

8. Define: What is competition?

9. Define: What is predation?

10. Define: What is parasitism?

Answer Key

1. B) predation - The lion (predator) hunts the zebra (prey). Lion gains energy; zebra dies. This is predation.

2. C) competition - Both species compete for the same food (plant leaves). If resources are limited, both are harmed.

3. B) mutualism - Both species benefit: bird gets food, alligator gets cleaning service. Mutualism.

4. B) one species outcompetes another for resources - If one species is superior at using a limited resource, it excludes the other (outcompetes it weaker species dies out).

5. Interaction type: competition (both species need sunlight) Species affected: both harmed (A gains, B loses light) Outcome: competitive exclusion - Species B dies out or relocates Note: if resources are not limiting, both may coexist

6. Interaction type: parasitism Parasite: tick (benefits: food) Host: deer (harmed: loses blood, energy) Outcome: tick population depends on deer health; high tick load can cause anemia

7. Interaction type: mutualism Bee benefits: obtains food (nectar) Plant benefits: reproduction (pollination) Outcome: both species depend on the interaction for survival; coevolution common

8. Two species both need the same resource (food, water, light, territory); both are harmed if resources are limited.

9. One species (predator) hunts and eats another (prey). Predator gains energy; prey dies. Controls prey population.

10. Parasite lives on/in host, feeds, and harms the host without killing it (unlike predation). Host is weakened.