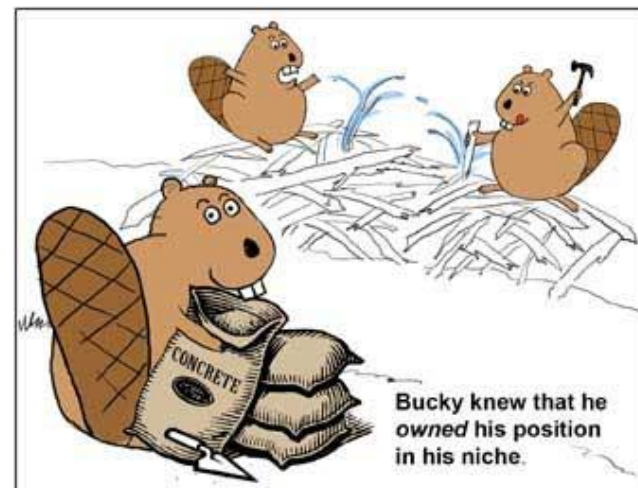


Ecosystem Interactions



Ecosystem Interactions

- Habitat: area where an organism lives
- Niche: the role or position that an organisms has in its environment
 - An organism's niche is how it meets its needs for food, shelter, and reproduction



Community Interactions:

Competition

- Organisms compete for basic needs such as food, shelter, and mates
- Competition: when more than 1 organism uses a resource (i.e. food, water, space, light) *at the same time*



Community Interactions: Predation

- Predation: when one organism eats another organism.
- *Predator* = the organisms that pursues another organism
- *Prey* = the organism that is pursued





SYMBIOSIS



- Some species survive because of the relationships they have with other species
- Symbiosis: the close relationship that exists when 2 or more species live together.
- 3 types of symbiosis:
 1. Mutualism
 2. Commensalism
 3. Parasitism





Mutualism



- Mutualism: when 2 or more organisms live together and they both benefit from each other.
- Example: Algae and fungi form lichens on trees
 - Algae provide food for fungi
 - Fungi provide habitat for the algae





Commensalism



- Commensalism is a relationship in which 1 organism *benefits* and the other organism is *neither helped nor harmed*
- Example: Clownfish & Sea Anemones
 - Clownfish swim in the stinging tentacles of sea anemones without harm
 - The clownfish receive protection and food missed by the sea anemones
 - The sea anemones are not harmed nor do they benefit





Parasitism



- Parasitism: when one organism benefits at the expense of another organism
- Parasite can be external (ticks and fleas) or internal (bacteria, tapeworms, and roundworms)
- The parasite doesn't always kill the host. It may only harm or weaken it
- If the host dies, the parasite will also die unless it finds another host



Parasitism

- Another type of parasitism is brood parasitism
- Brown-headed cowbirds demonstrate brood parasitism because they rely on other bird species to *build their nests* and *incubate their eggs*
 - They lay their eggs in another bird's nest and abandon them
 - The other bird then takes care of the young cowbirds
 - The baby cowbirds often push the other eggs and young birds from the nest so that they are the only ones to survive



Symbiosis



Mutualism



Parasitism



Commensalism

