

Guided Notes- Principles of Ecology

Ecology is the scientific discipline in which the relationships among living organisms and the interactions the organisms have with their environment.

Biosphere means "life" "ball".

There are TWO types of factors organisms interact with in their environment.
List Examples of each.

Biotic Factors (living)

Each other
Other types
of organisms

Abiotic Factors (non-living)

Air
water
Rocks/soil
Sun
Climate (temp. & precipitation)

Levels of Organization - different levels of studying the organism's interactions.

*pick an organism and identify the interactions/relationships at each level.

Organism - one single living thing (ex: lion)

Habitat - place where the organism lives
(ex: savannah/grasslands)

Niche - "hole" organisms job.
(ex: feeding - carnivores
reproduction - sexually)

Population

- Same species in the same area that can interbreed (ex: Pride of Lions)

Biological Community

- many populations interacting
(ex: Lions, gazelles, grasses, trees, insects, etc) → Predator/Prey
• Symbiotic Relationship

Ecosystem

- Physical Environment (water, rock, sun, wind etc.)
+
Biological community

1. mutualism
+/+

bees : Flowers

2. Commensalism
+ / 0

barrel : whale

3. Parasitism
+ / -

tick : dog

Biome

Larger Ecosystem with a similar climate & organisms

Biosphere - Earth supports life

biotic
biotic
biotic