

# ECOSYSTEMS - *STRUCTURES*

Part I - Unit 8

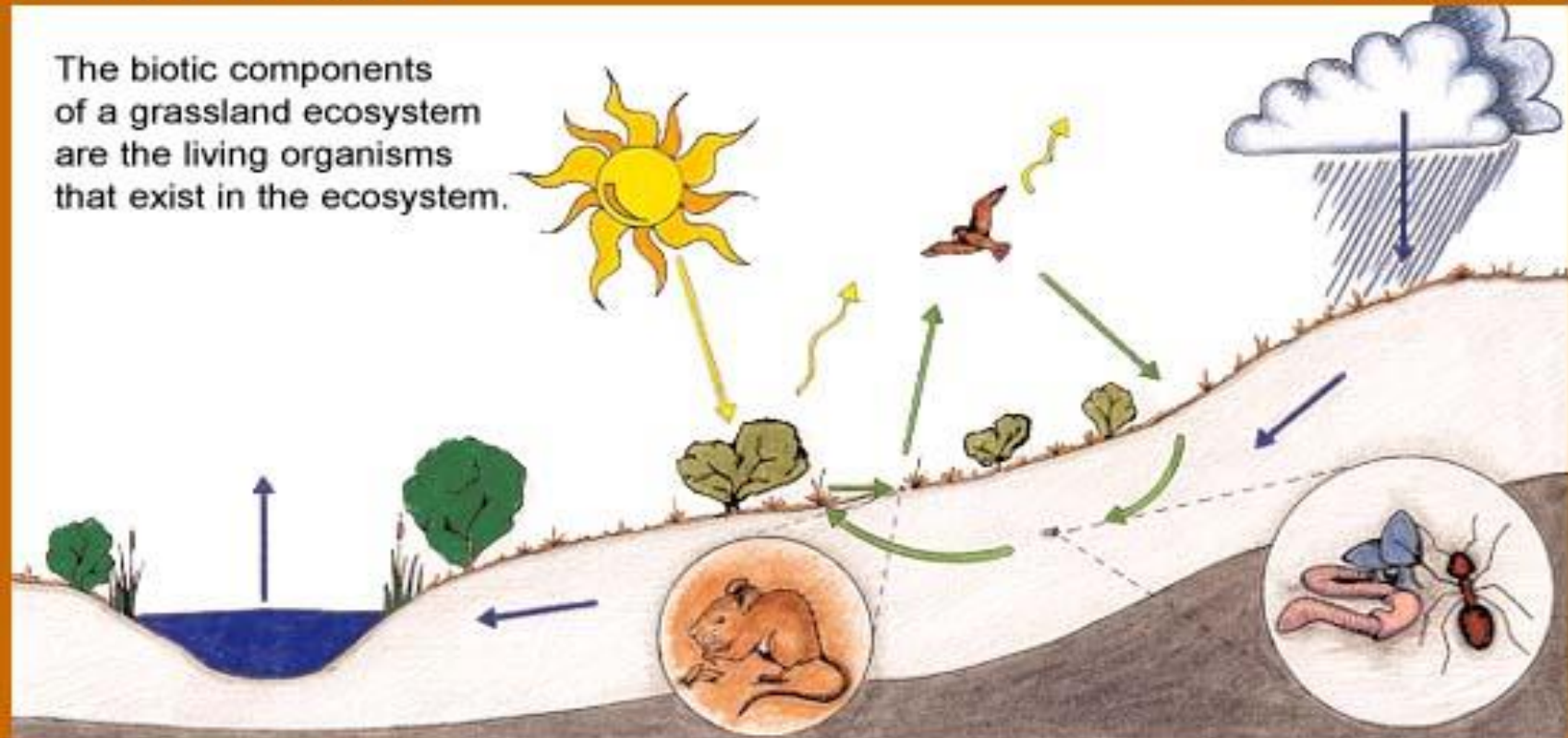
# BIOTIC FACTORS

- ◉ **DEF:** All *living* parts of ecosystems
  - *Plants, animals, bacteria, microorganisms*

## BIOTIC COMPONENTS

ILLUSTRATION: NICOLE BRAND

The biotic components of a grassland ecosystem are the living organisms that exist in the ecosystem.



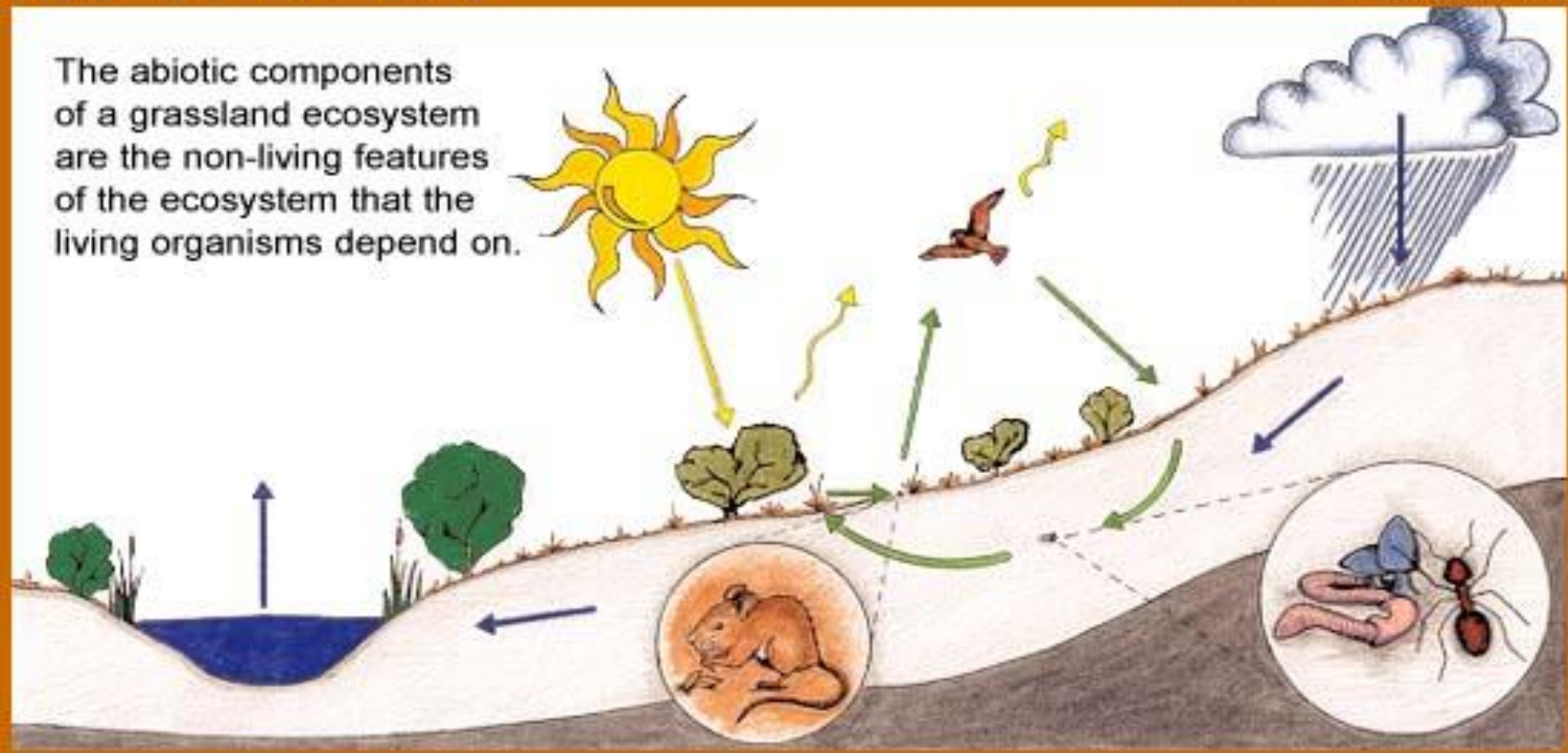
# ABIOTIC FACTORS

- ◎ **DEF:** All non-living parts of ecosystems
  - *Water, soil, air, temp, precip, sunlight*

## ABIOTIC COMPONENTS

ILLUSTRATION: NICOLE BRAND

The abiotic components of a grassland ecosystem are the non-living features of the ecosystem that the living organisms depend on.





# ORGANISM /INDIVIDUAL

○ Single animal,  
plant, or single-  
celled life form  
in an ecosystem



# SPECIES



○ Group of  
*organisms*  
with *similar*  
individuals  
capable of  
*breeding*

# POPULATION

- All *organisms* of a *species* in a specific *region* at a certain *time*





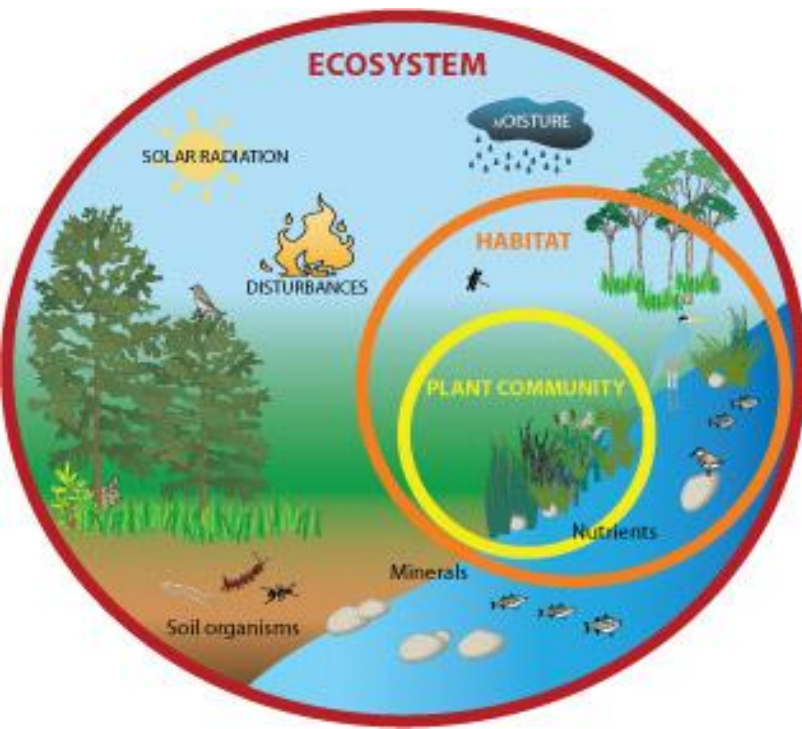
# COMMUNITY



- All *populations* of a *species* in specific *region* at certain *time*

# ECOSYSTEM

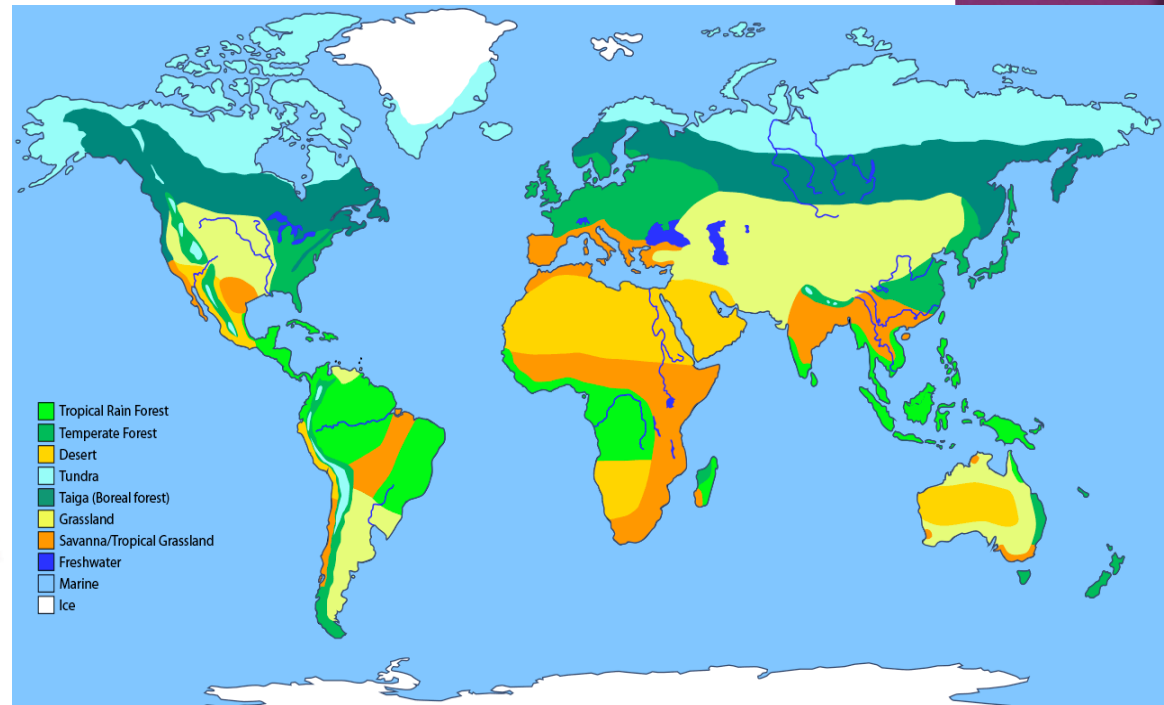
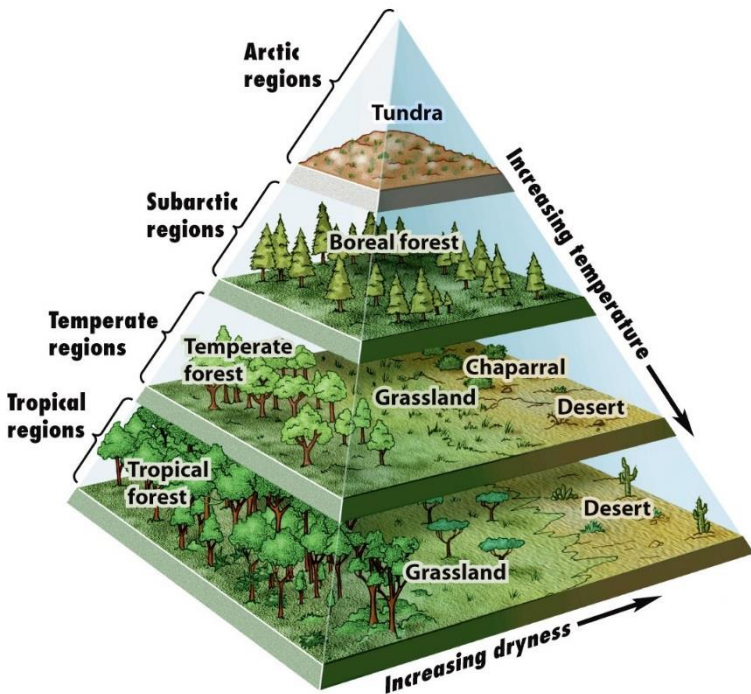
- **Complex** & **structured** environment where **ALL** living and non-living parts work together





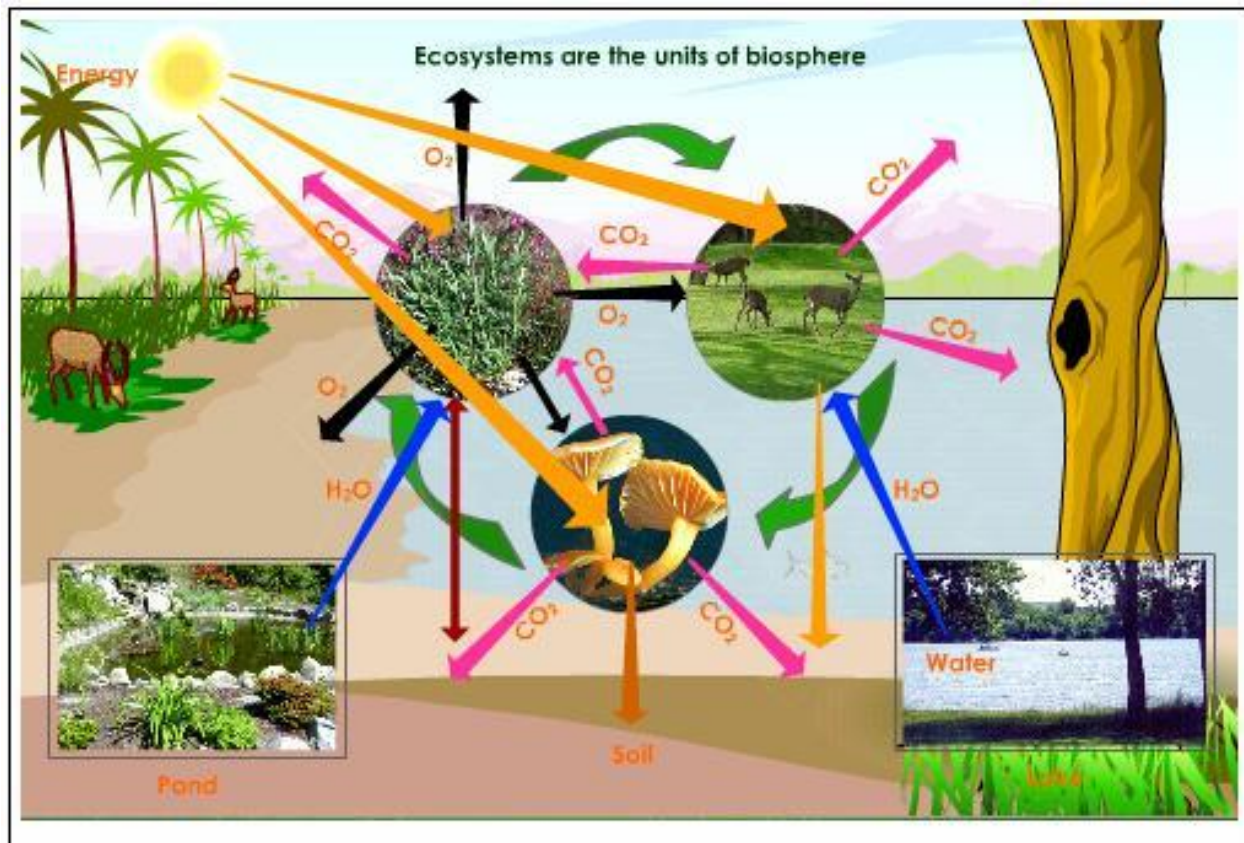
# BIOME

○ Complex **geographic** ecosystem defined by **plant** & **animal** species, maintained under **soil** & **climatic** conditions



# BIOSPHERE

- ◉ Global **sum** of **ALL** ecosystems/biomes
  - Includes **atmos, hydro, geosphere**





**Biosphere**

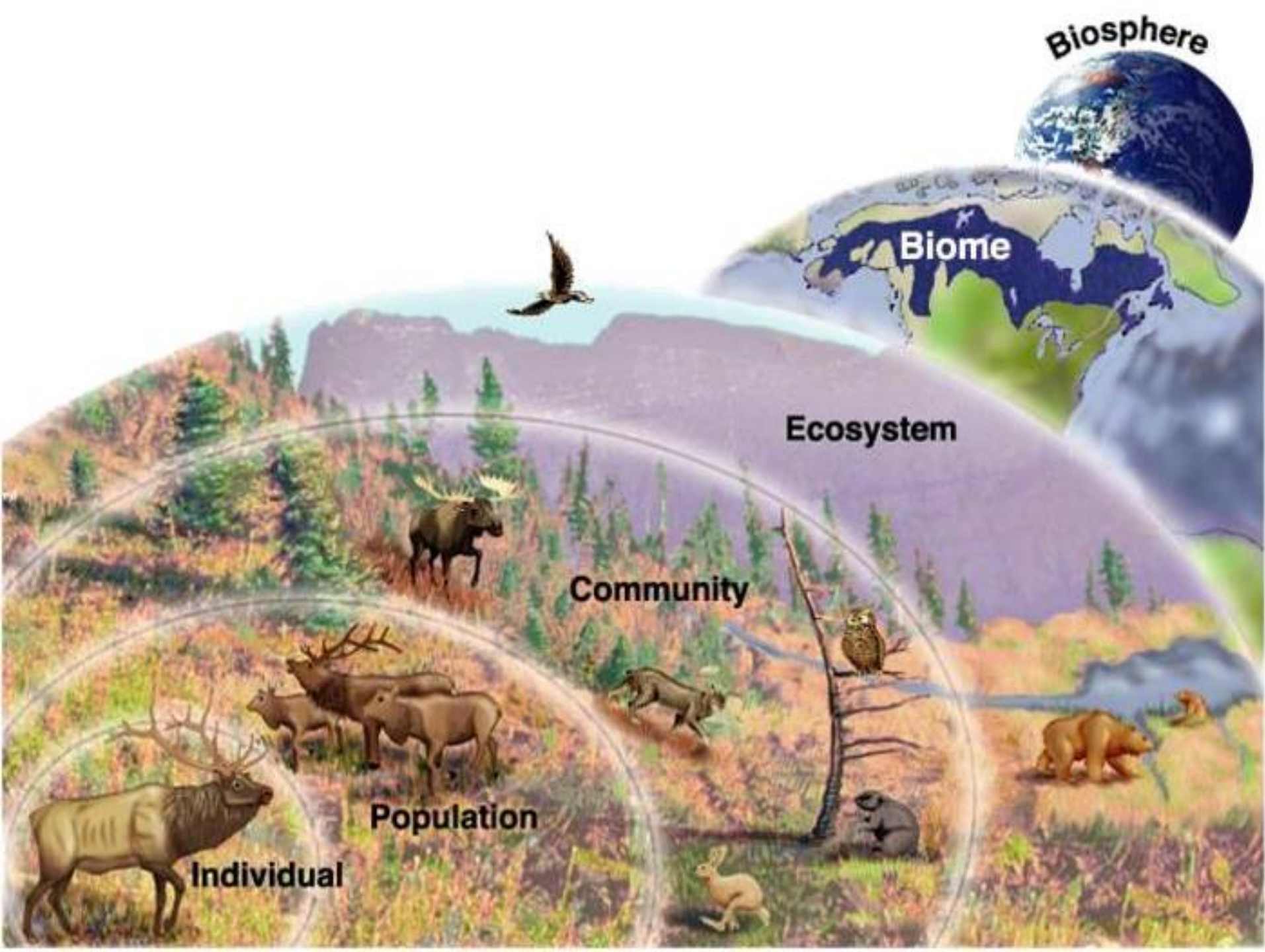
**Biome**

**Ecosystem**

**Community**

**Population**

**Individual**





# COMPETITION

○ All species have **similar** needs and **compete** for resources:

- *Climate Range*
- *Territory/Habitat*
- *Food*
- *Mating*



# HABITAT DESTRUCTION

- ***Bulldozing, filling*** in wetlands, ***dredging*** rivers, ***mowing*** fields, & ***deforestation***







an Dorst



# Habitat Destruction



# HABITAT *FRAGMENTATION*

◎ *Separation* of habitats with physical barriers: *roads* & *water*





# HABITAT DEGRADATION

○ *Pollution*, *invasive* species, and ecosystem *disruption*



# LOSS OF HABITATS

## ○ Main Causes:

- *Agriculture*
- *Land Development*
- *Water Development*
- *Pollution*
- *Global Warming*

