

The Gila Monster - AMAZING Venomous Lizard Encounter!

<https://www.youtube.com/watch?v=Zt36pxSJF0c>



Gila Monster Video

• osteoderms - "bumps" on the skin

↓ ↓
"bone" "skin"

• venomous (bites rare)

• lizard (reptile)

• found in the Sonoran desert
↳ (ecosystem)



↳ living/non-living parts of an environment.

Ectotherms

ecto = outside

therm = heat

Reptiles

1. Scales – folds of skin
2. Lungs
3. Snakes and lizards
4. Turtles and tortoises
5. Dinosaurs → *vertical legs*
6. Alligators and crocodiles



CROCODILE



TURTLE

REPTILES



SNAKE



IGUANA



CHAMELEON

Ectotherms

ecto = outside

therm = heat

Amphibians

1. Smooth skin/no scales
2. Gills and lungs
3. Frogs and toads
4. Salamanders



FROG



TOAD

AMPHIBIANS



CAECILIAN



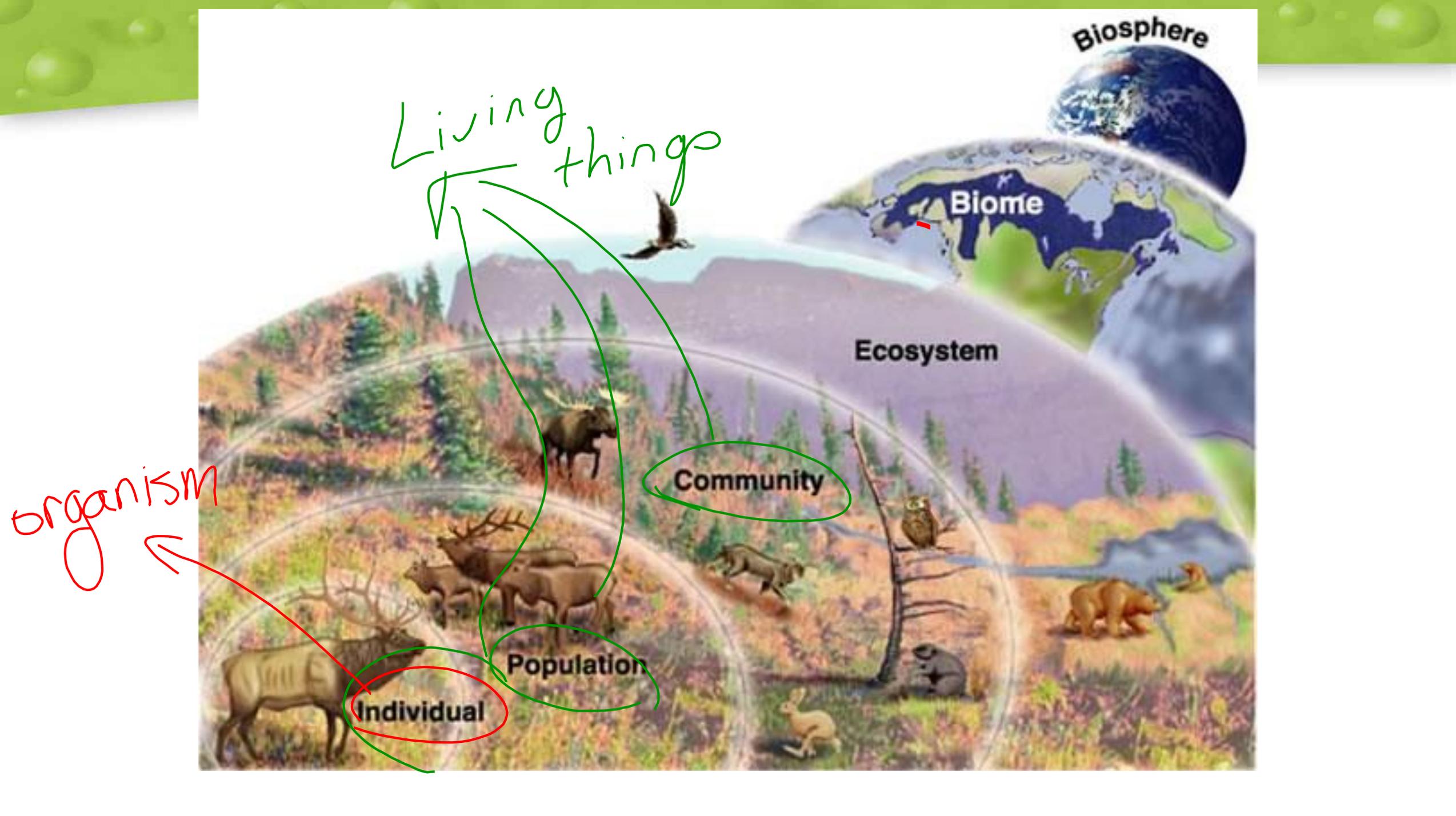
SALAMANDER

Ecology

- **Ecologists:** study life at many **levels**, from individual organisms to the entire **biosphere**.
→ one who studies → area of the Earth inhabited by life.
- **Ecology:** study of how organisms interact with each other and with their environments.



study of environment



Biosphere

Biome

Ecosystem

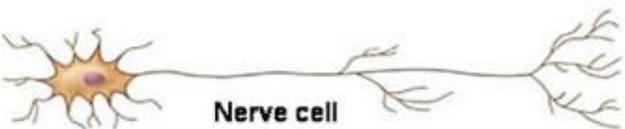
Community

Population

Individual

Living things

organism

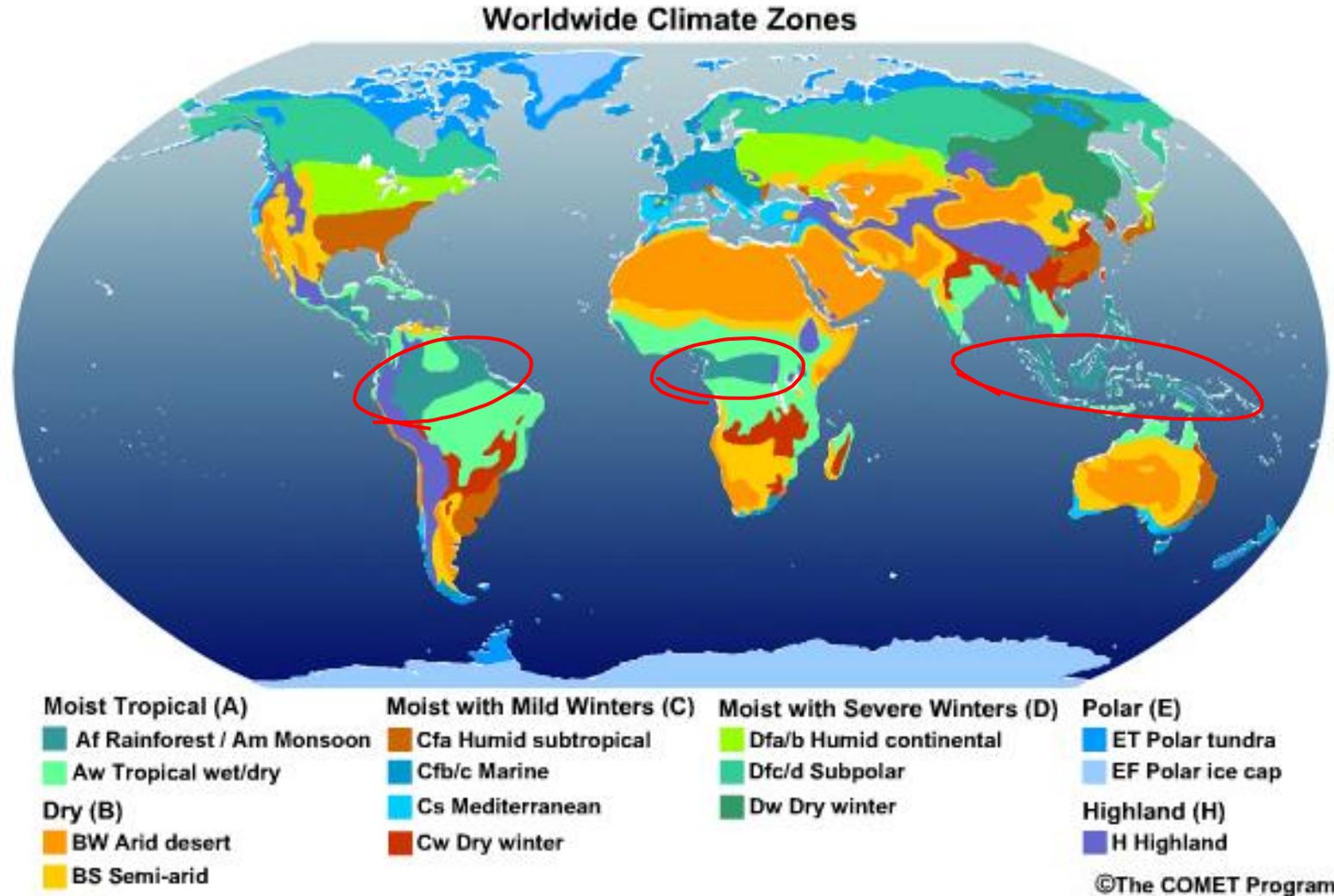
Biosphere	The part of Earth that contains all ecosystems	 Biosphere
Ecosystem	Community and its nonliving surroundings	 Hawk, snake, bison, prairie dog, grass, stream, rocks, air
Community	Populations that live together in a defined area	 Hawk, snake, bison, prairie dog, grass
Population	Group of organisms of one type that live in the same area	 Bison herd
Organism	Individual living thing	 Bison
Groups of Cells	Tissues, organs, and organ systems	 Nervous tissue Brain Nervous system
Cells	Smallest functional unit of life	 Nerve cell
Molecules	Groups of atoms; smallest unit of most chemical compounds	 Water DNA

Living Things

Short-grass prairie

Climate

- Annual pattern of weather
- weather: conditions outside at a point in time

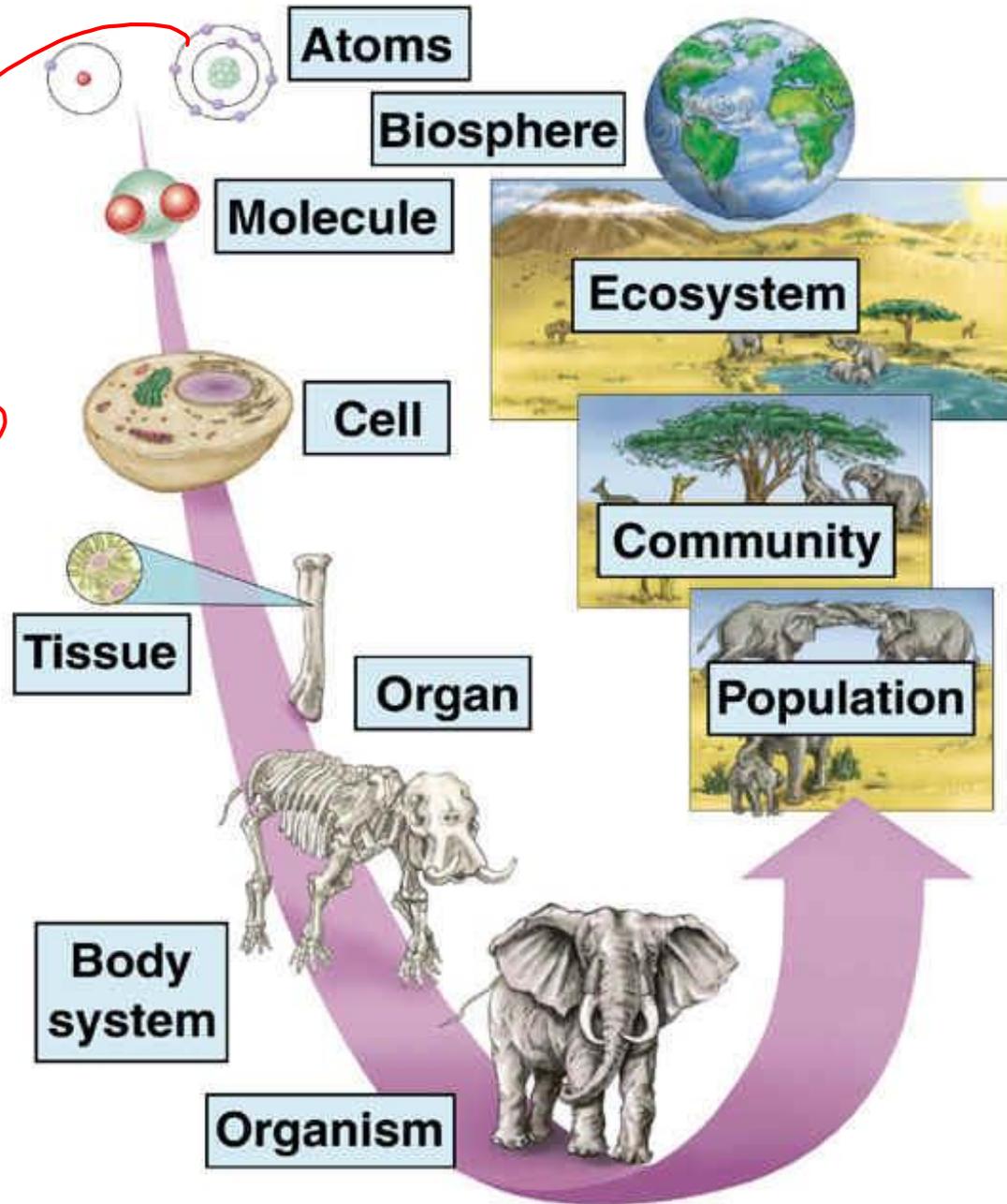


Weather vs. Climate: Crash Course Kids #28.1

<https://www.youtube.com/watch?v=YbAWny7FV3w>



Figure 4.1



subatomic particles
(p, n, e)

African Savannah





Ecosystems and Biomes

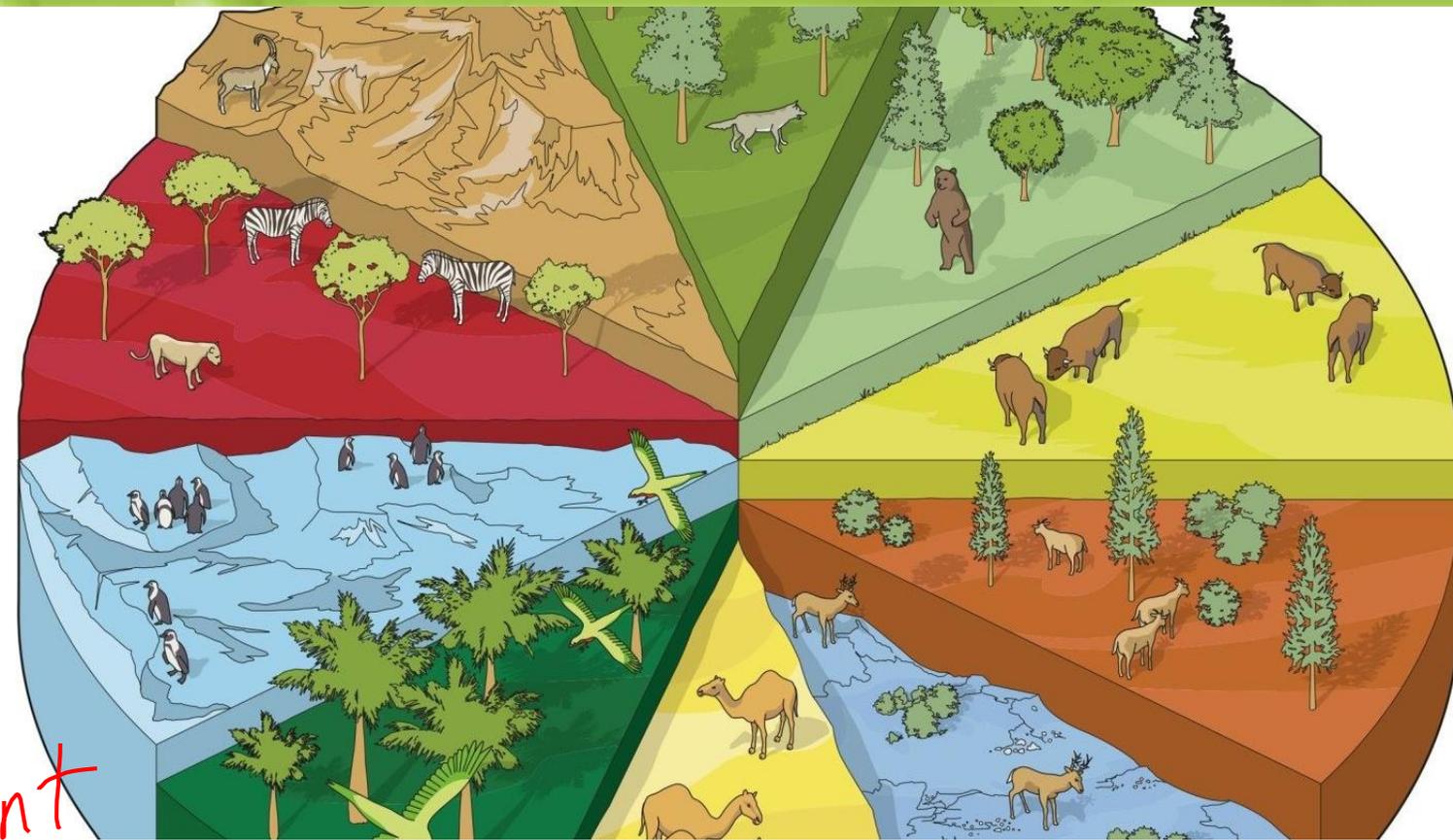
Ecosystem → *more specific*

- **Similar** types of **species** – based upon animals and plants
- Variety of **habitats**/**microhabitats** → *small*
- Can refer to a single **geographic** location

→ earth → picture

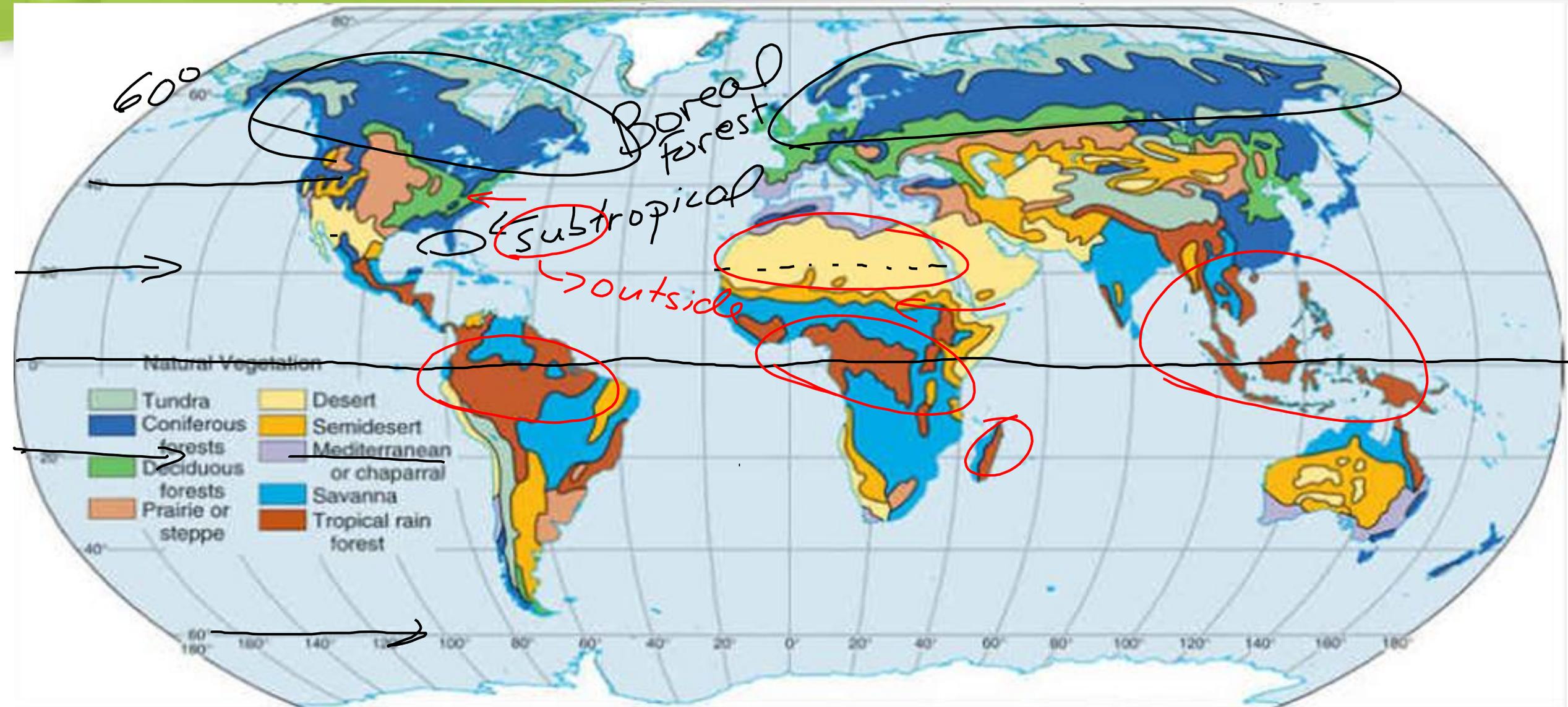
Biome → *more general*

- Large scale **geographic** areas
- Similar **climates**
- Similar **ecosystems**



most
abundant
or
indicator
species

- ✓ **Biome:** large **geographic** area defined by characteristic **climate** features and dominant plant life
- ✓ Generally found in bands of **latitude** around the planet.

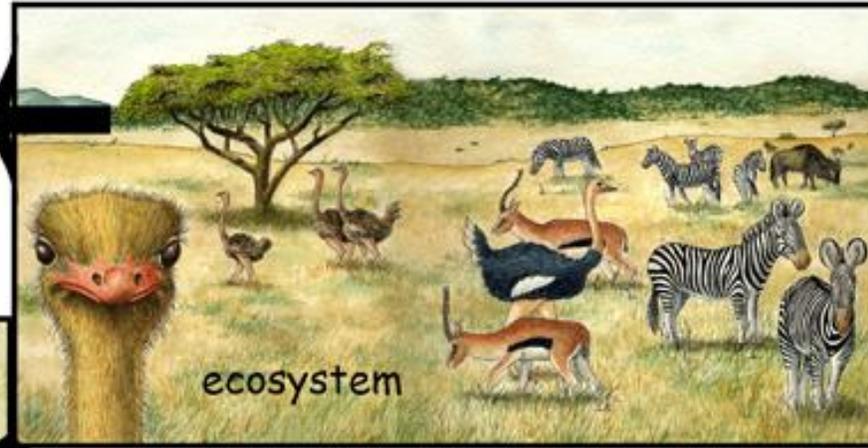


Ecology

Organizing Living Things in their Environments

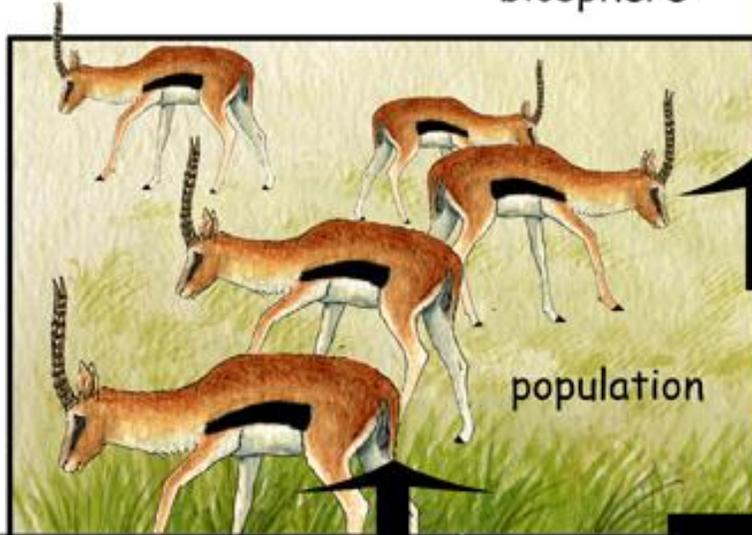


biosphere

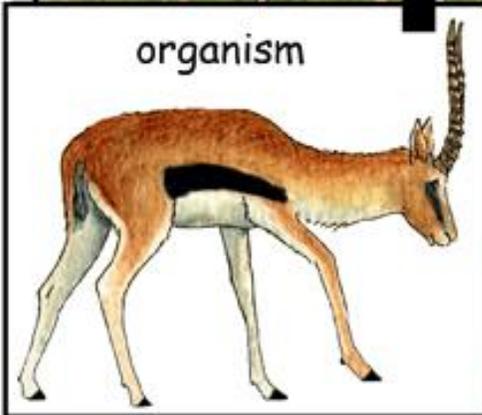


ecosystem

A **community** together with the non-living environment (air, water, etc.) is an **ecosystem**. All the ecosystems on Earth make up the **biosphere**.

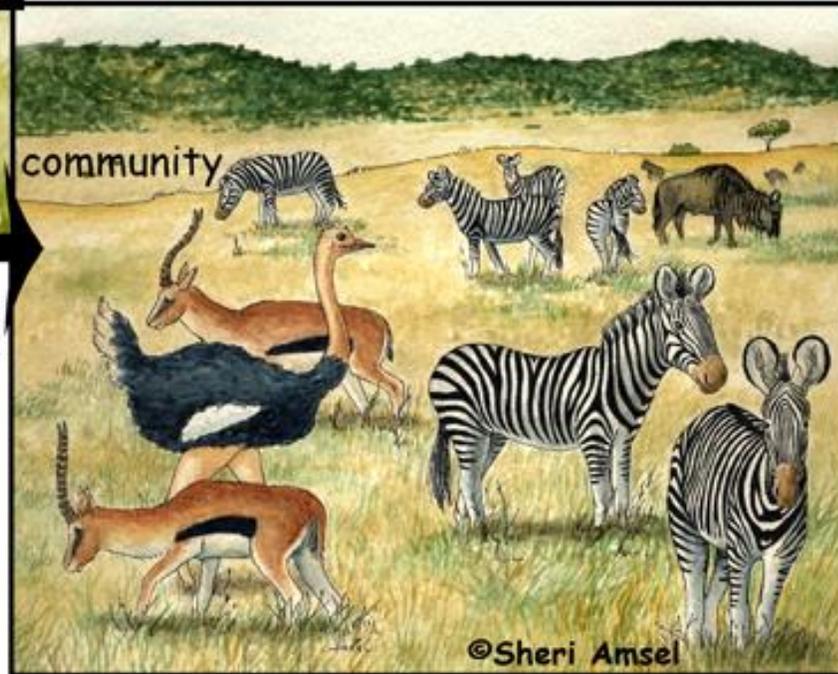


population



organism

Individual living things are called **organisms**. Many organisms of one species living in one area is called a **population**. Many different populations living in one area is a **community**.



community

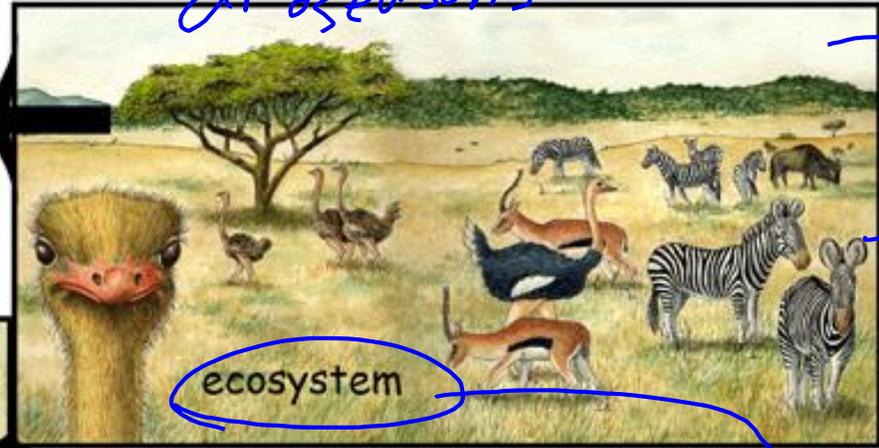
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Ecology

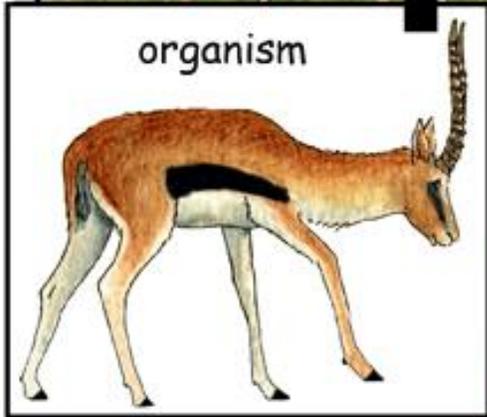
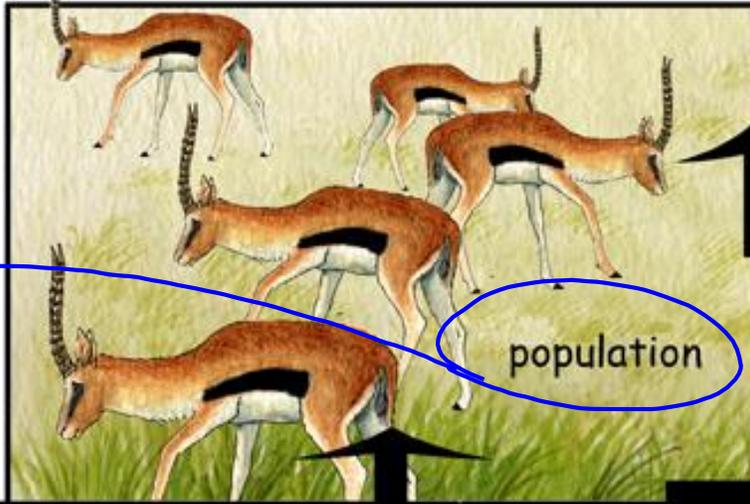
Organizing Living Things in their Environments



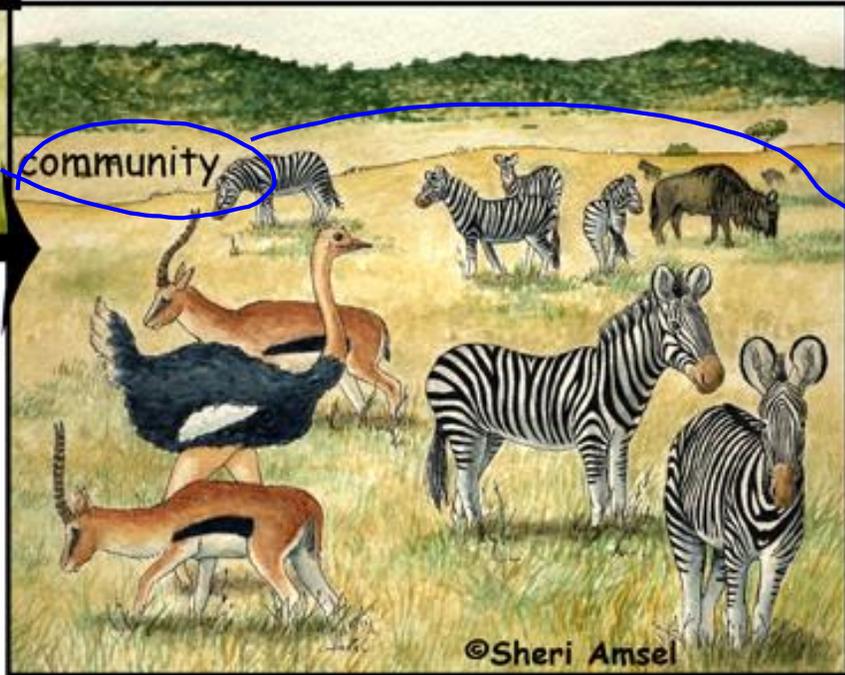
biosphere



A **community** together with the non-living environment (air, water, etc.) is an **ecosystem**. All the ecosystems on Earth make up the **biosphere**.



Individual living things are called **organisms**. Many organisms of one species living in one area is called a **population**. Many different populations living in one area is a **community**.



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Wet/dry seasons ← climate

→ abiotic

→ biotic (living)

→ physical living things

→ all the living things

one species. ←

Levels of Organization

- **Organism (individual)**: smallest level of organization, which belongs to a **population** that includes other members of its **species**



Organism: Prairie dog

Population:
Prairie dog town



black-tailed
p-dog

specific
type

Levels of Organization

Community: group of *interacting* populations that occupy the same area at the same time

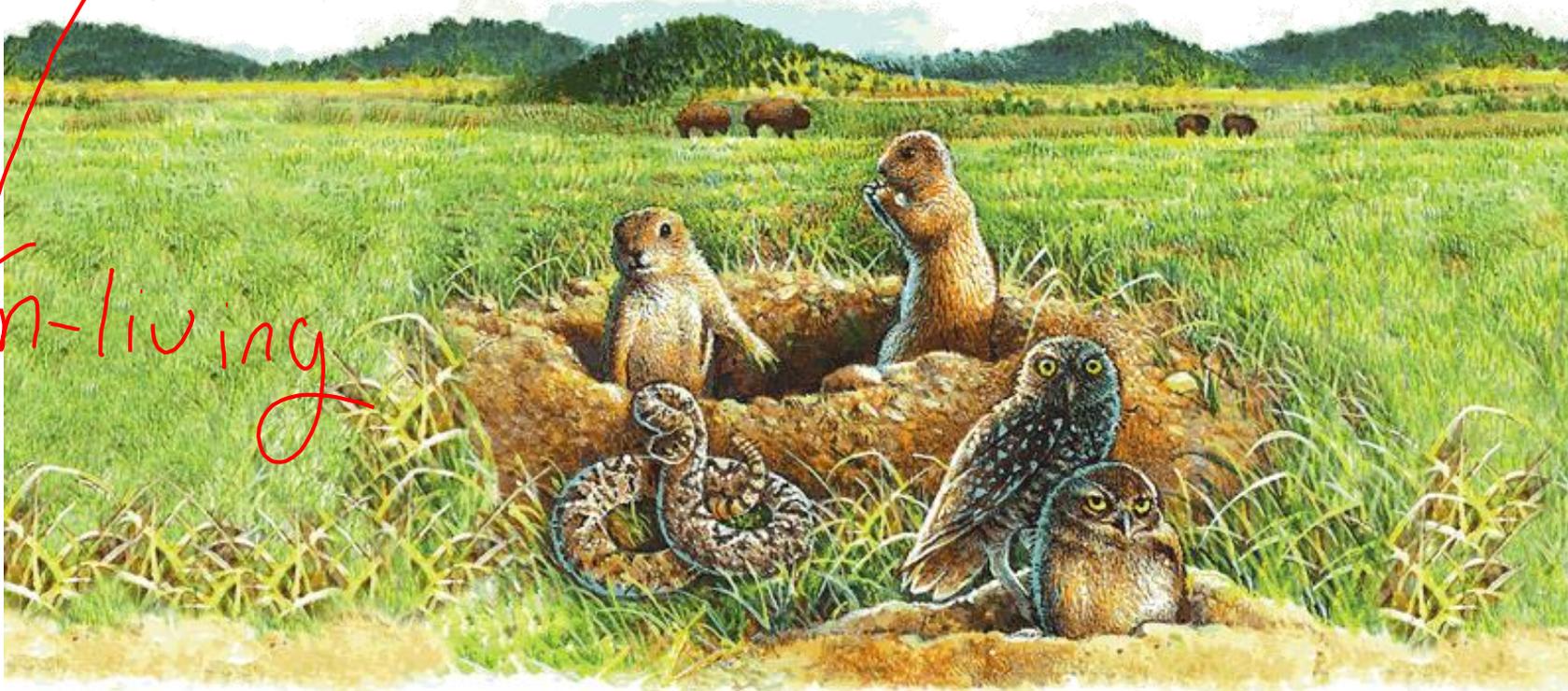
Community: All the living things that interact on the prairie



Levels of Organization

Ecosystem: community of life that is adapted to the abiotic factors of an environment.

Ecosystem: All the living and nonliving things that interact on the prairie



physical part

non-living