

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



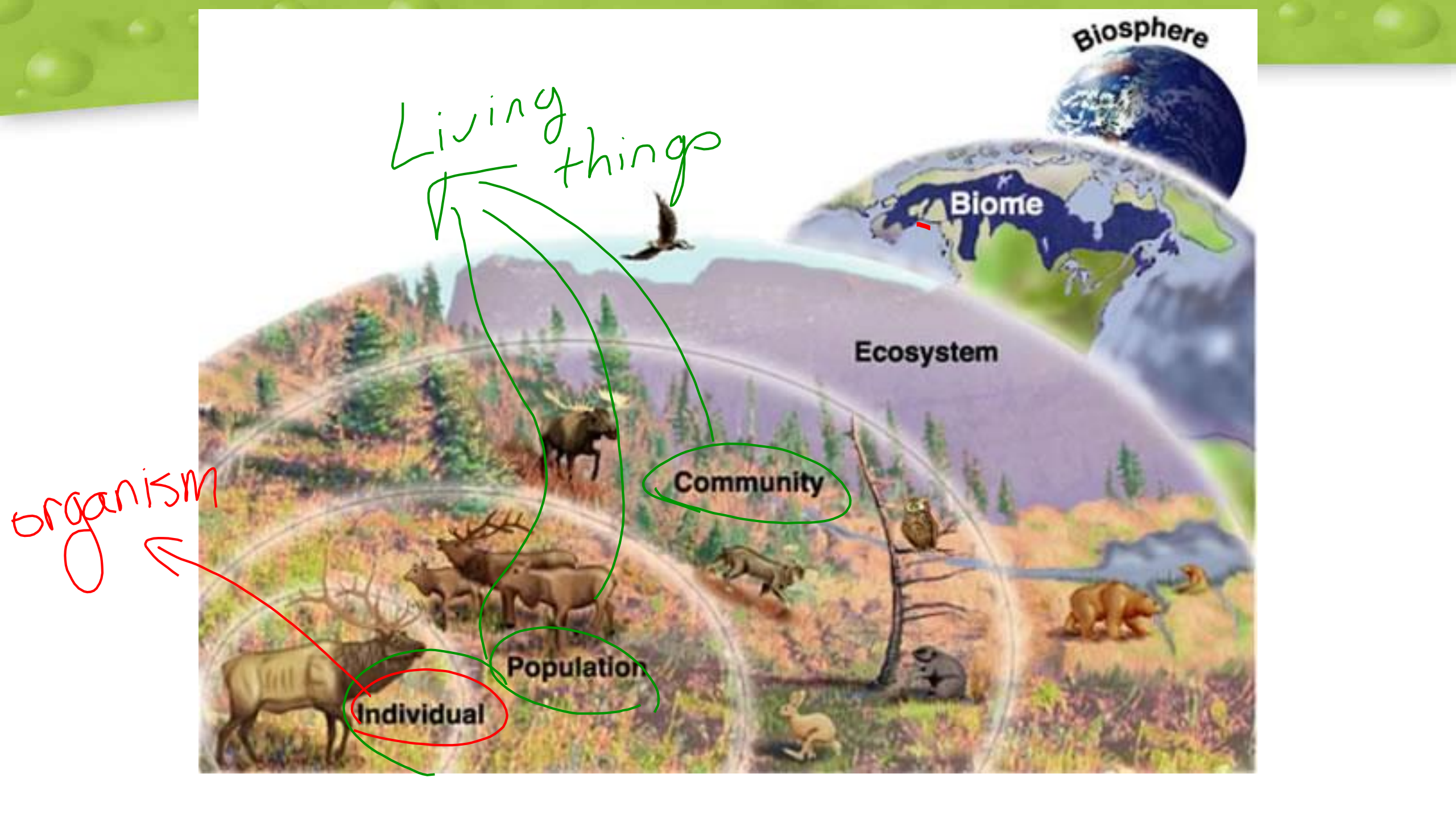
SALAMANDER

Ecology







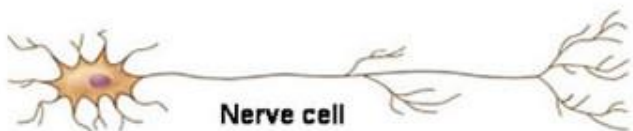
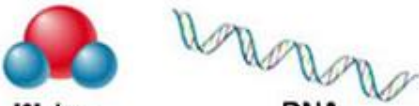
- **Ecologists:** study life at many **levels**, from individual organisms to the entire **biosphere**.
→ one who studies → area of the Earth inhabited by life.
- **Ecology:** study of how organisms interact with each other and with their environments.

→ study of environment





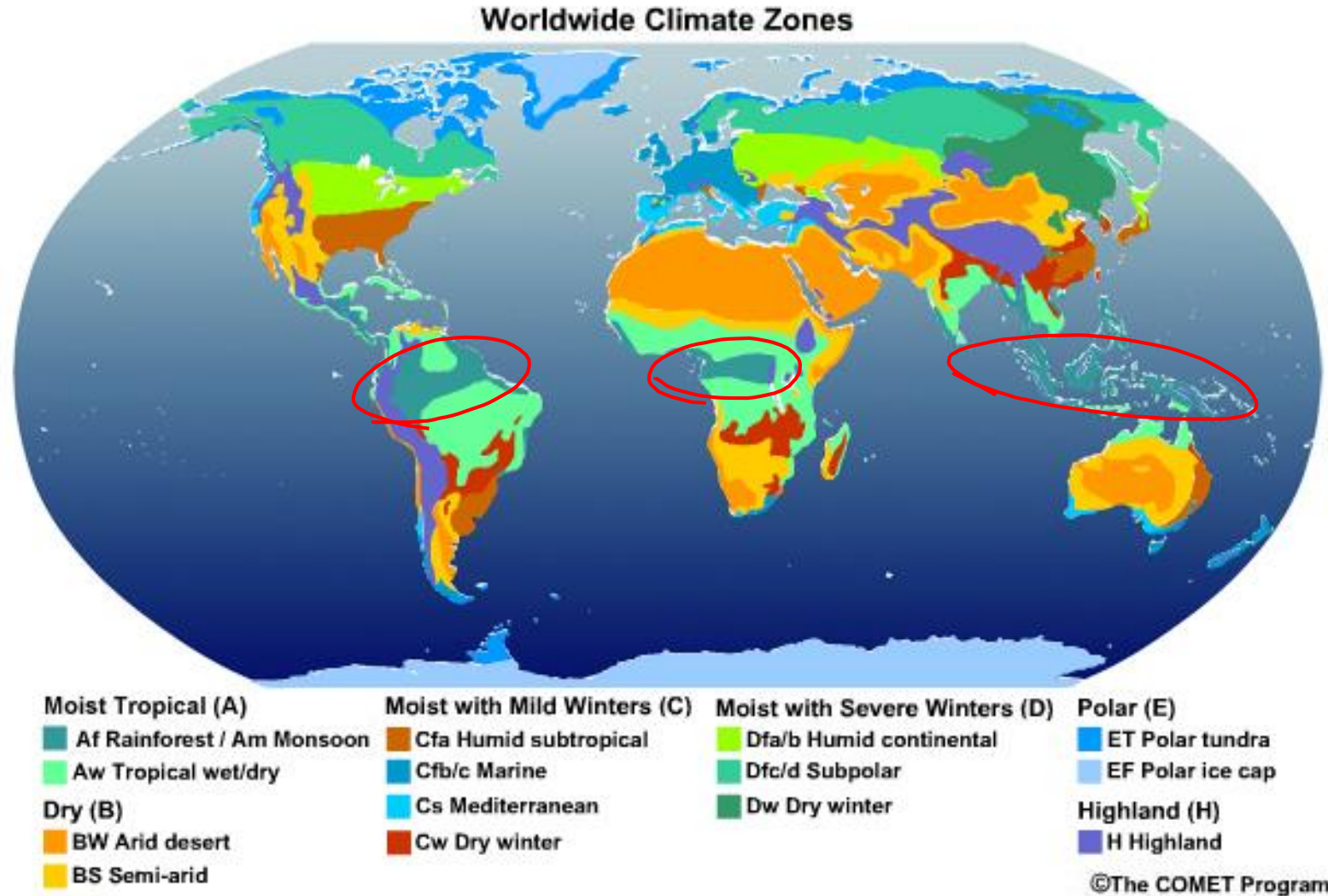
Living
Things

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

Short-grass
prairie

Climate

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

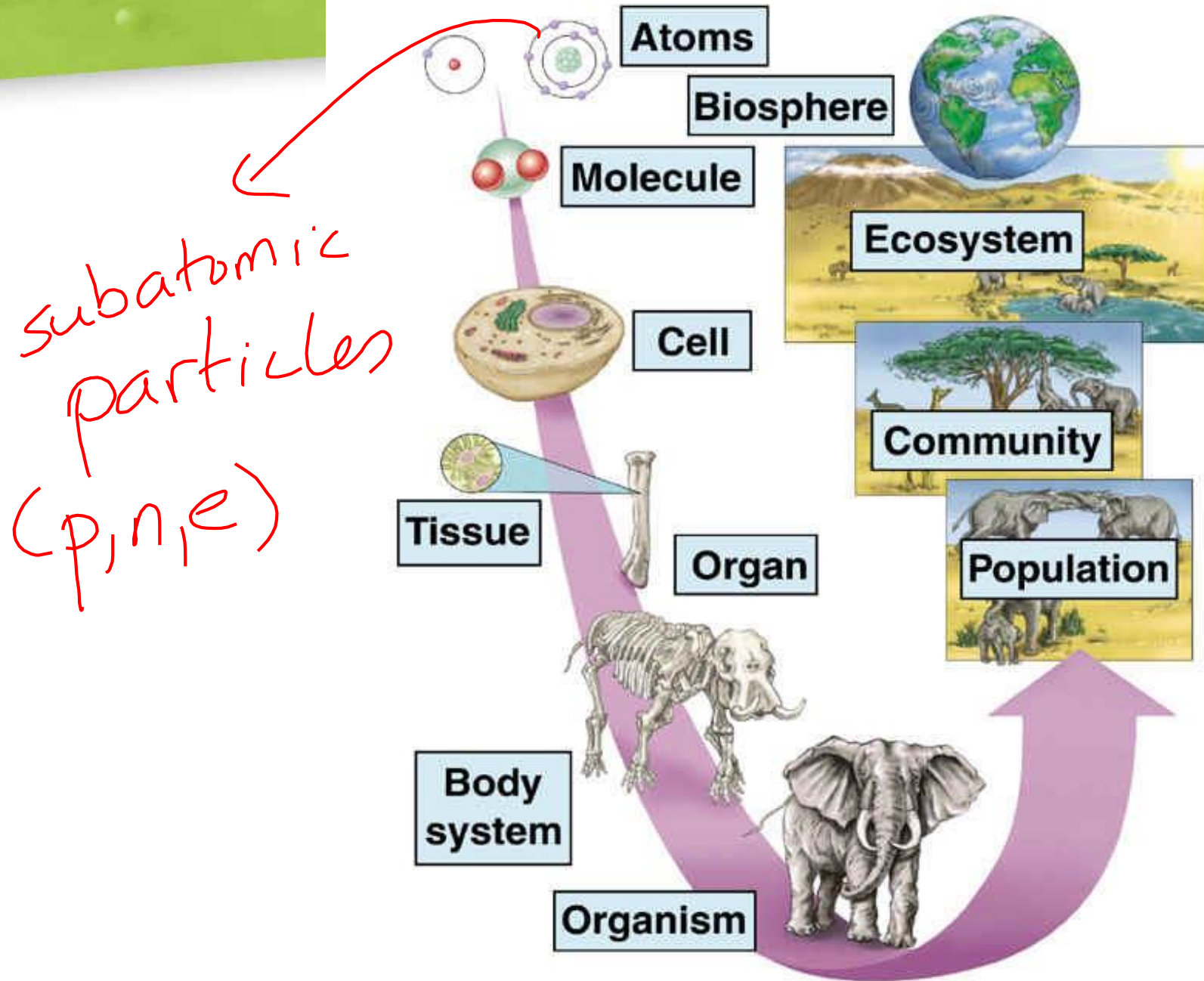


Weather vs. Climate: Crash Course Kids #28.1

<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

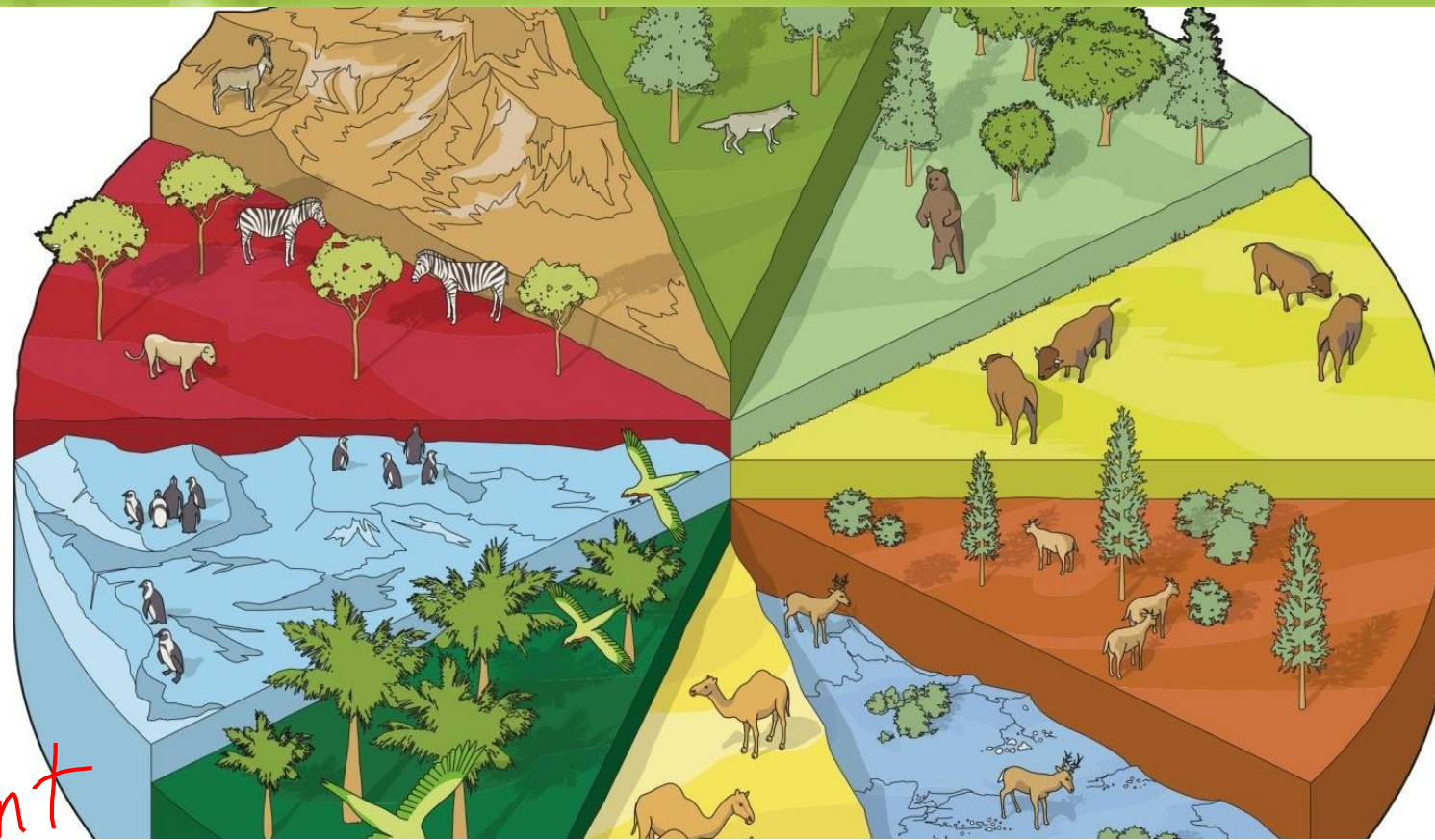
→ earth → picture

Biome → more general

- Large scale **geographic** areas

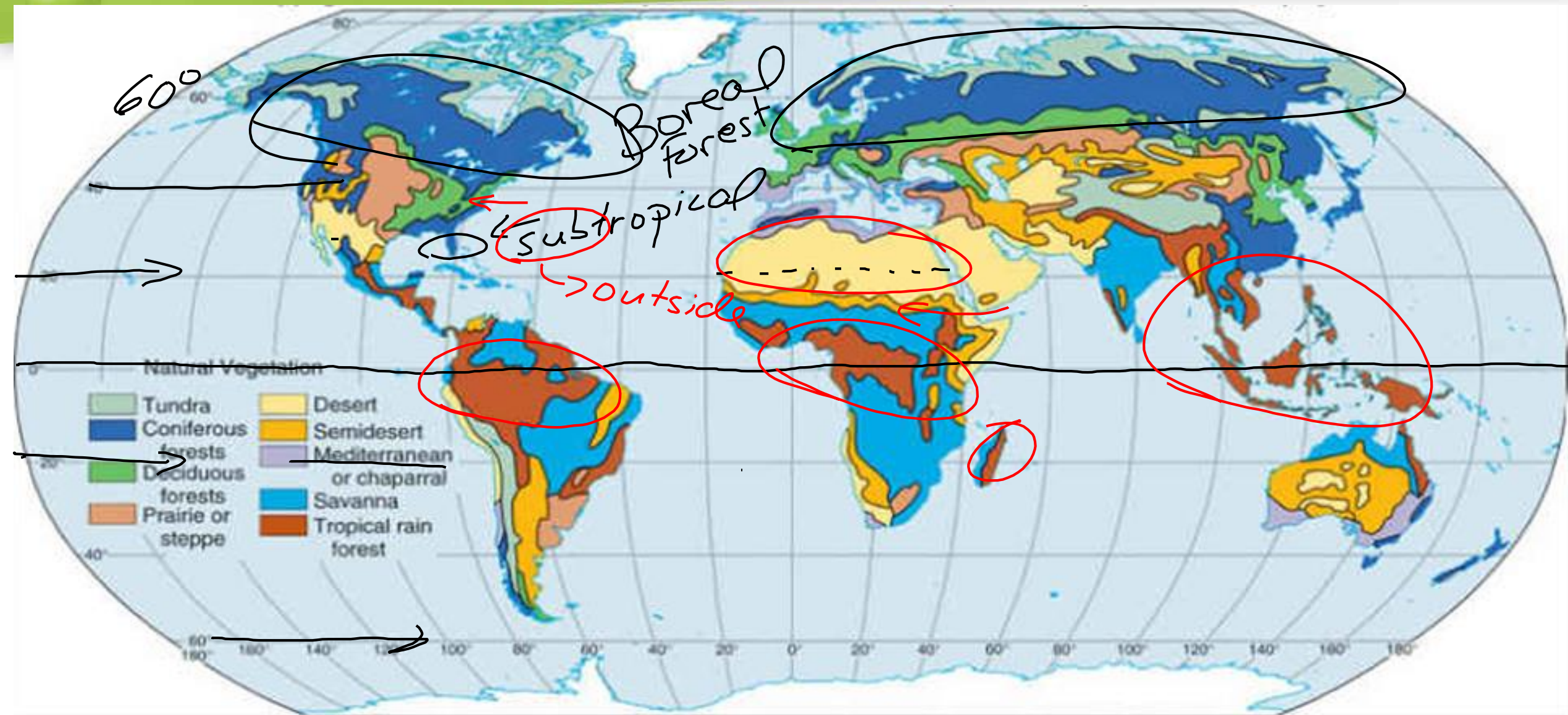
- Similar **climates**

- 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.

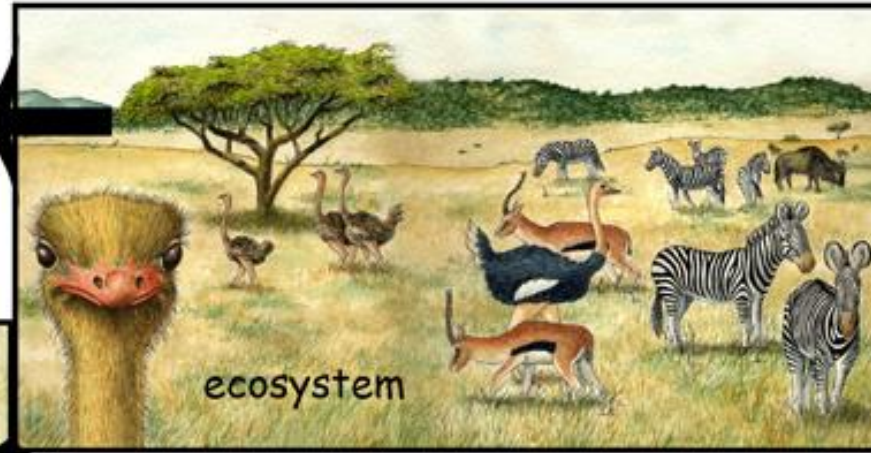


Ecology

Organizing Living
Things in their
Environments

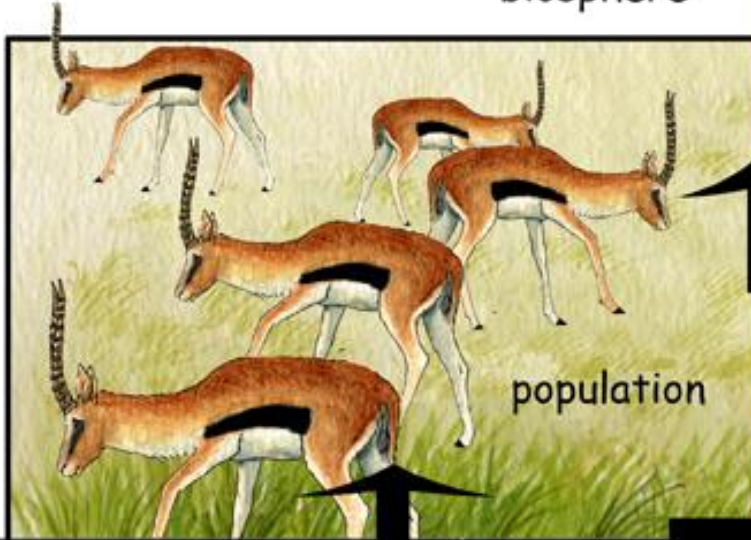


biosphere

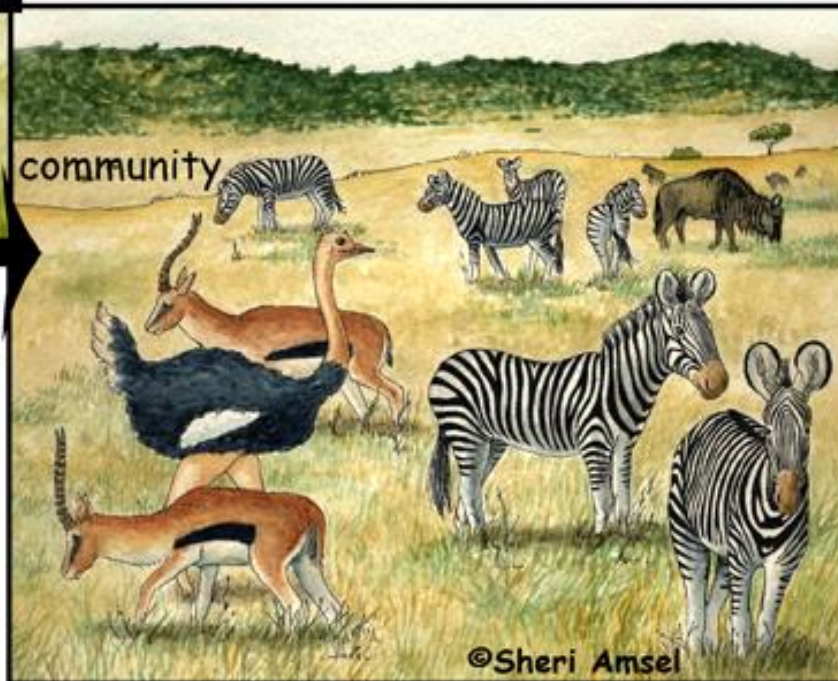


ecosystem

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

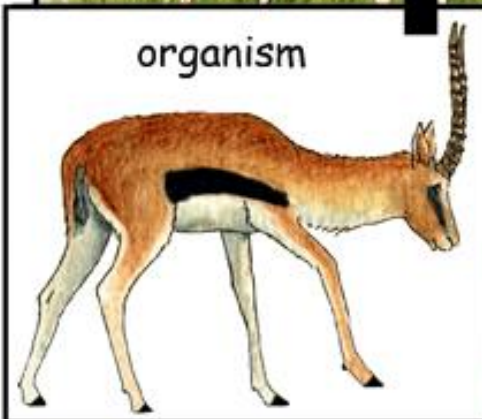


population



community

©Sheri Amsel



organism

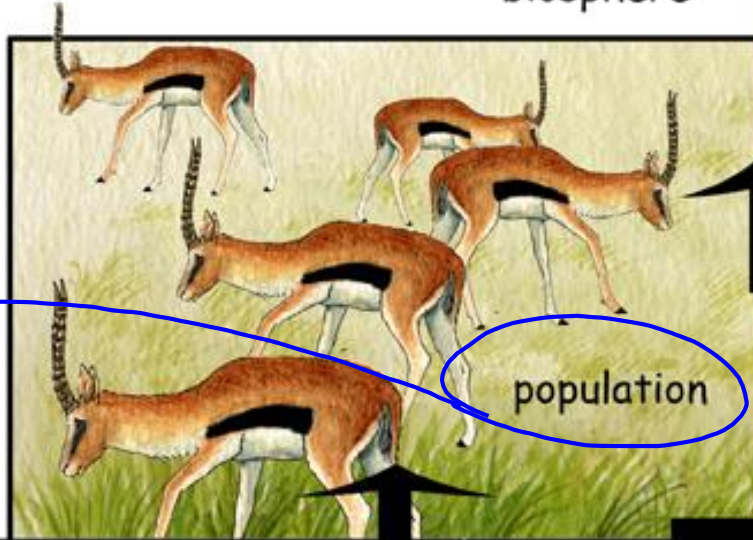
Individual living things are called **organisms**. Many organisms of one species living in one area is called a **population**. Many different populations living in one area is a **community**.

Ecology

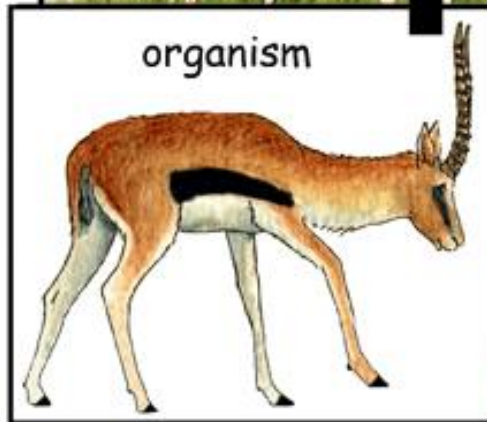
Organizing Living Things in their Environments



biosphere

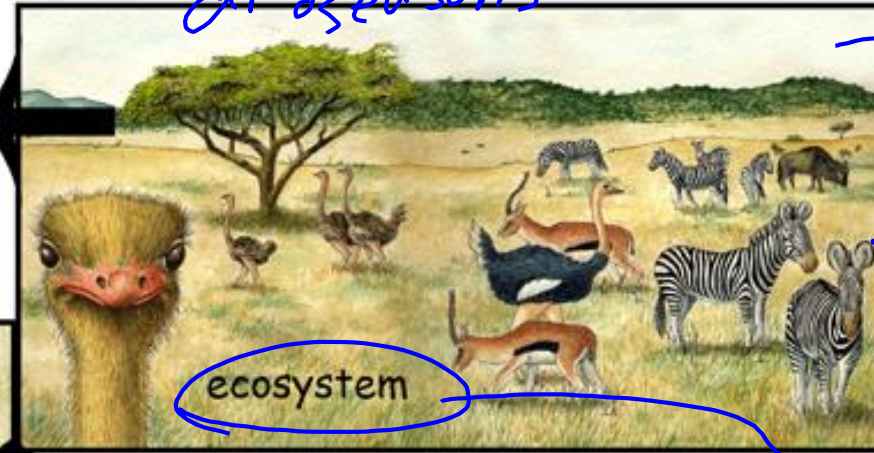


population



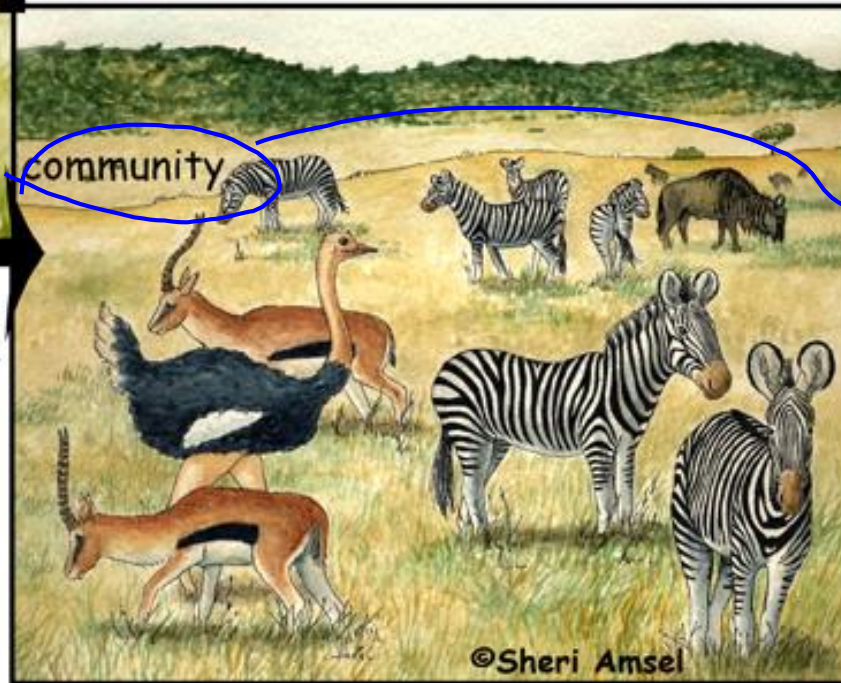
organism

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**.



ecosystem

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



community

©Sheri Amsel

one species.

wet/dry seasons ← climate

→ abiotic

→ biotic (living)

→ physical living things

→ all the living things

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



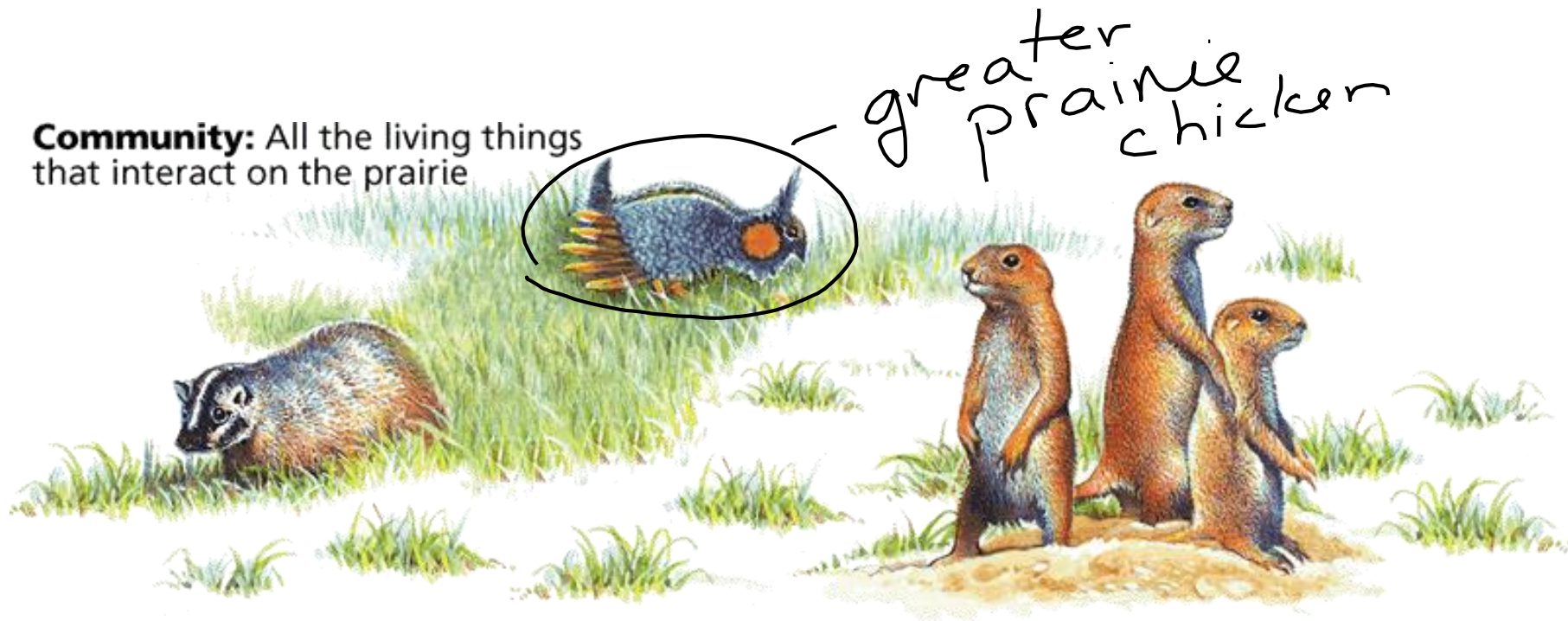
black-tailed
p-dog

specific
type

Levels of Organization

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

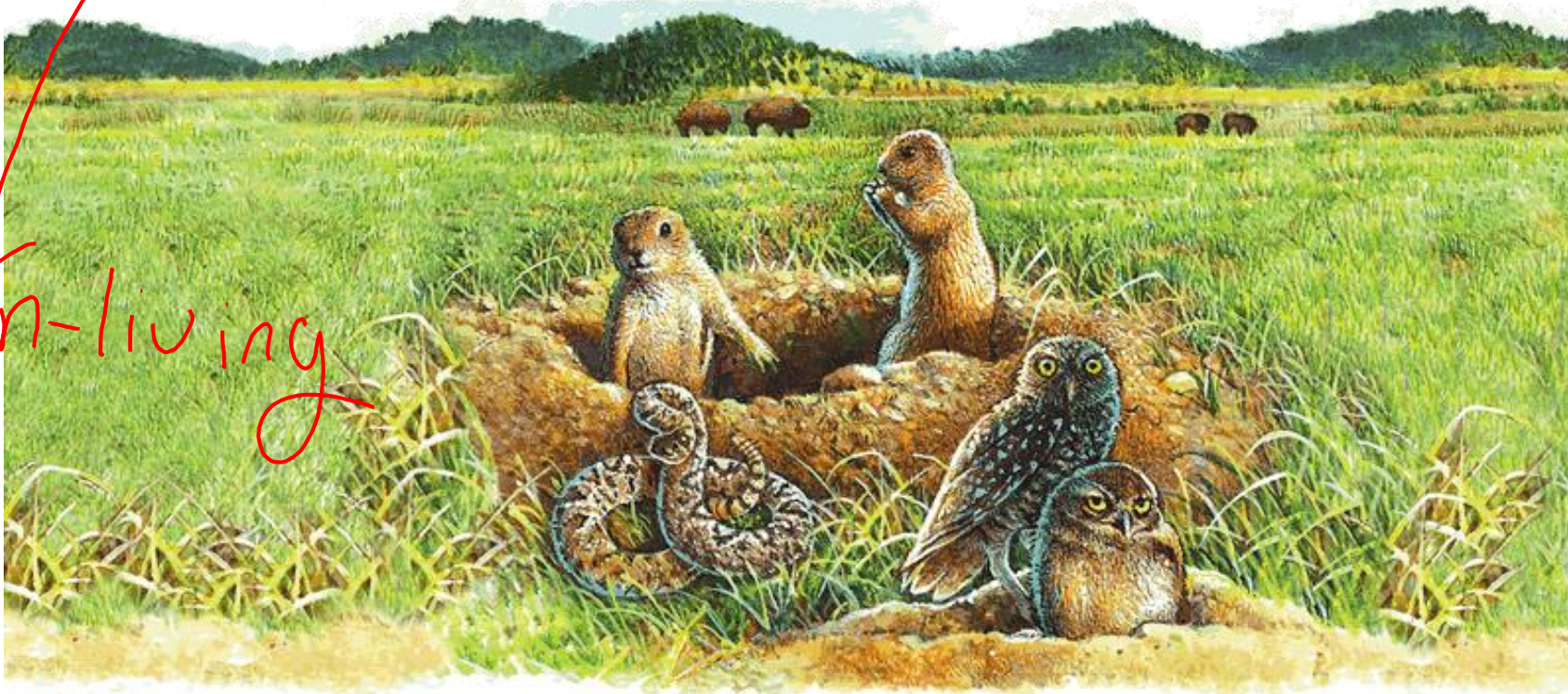
Community: All the living things that interact on the prairie



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