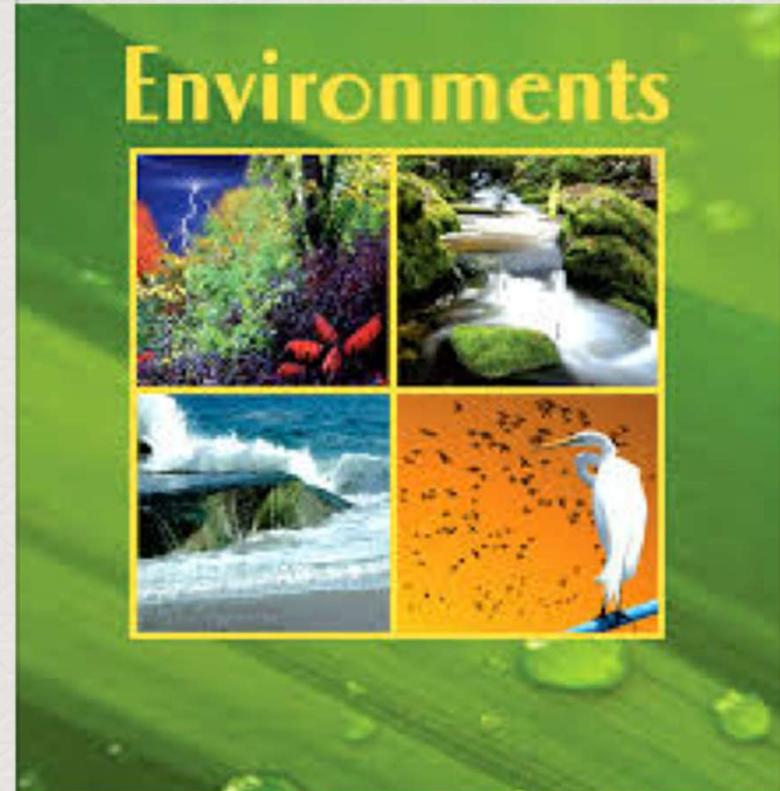


Organisms and Their Environment - Part 3

Science 7

Big Idea:

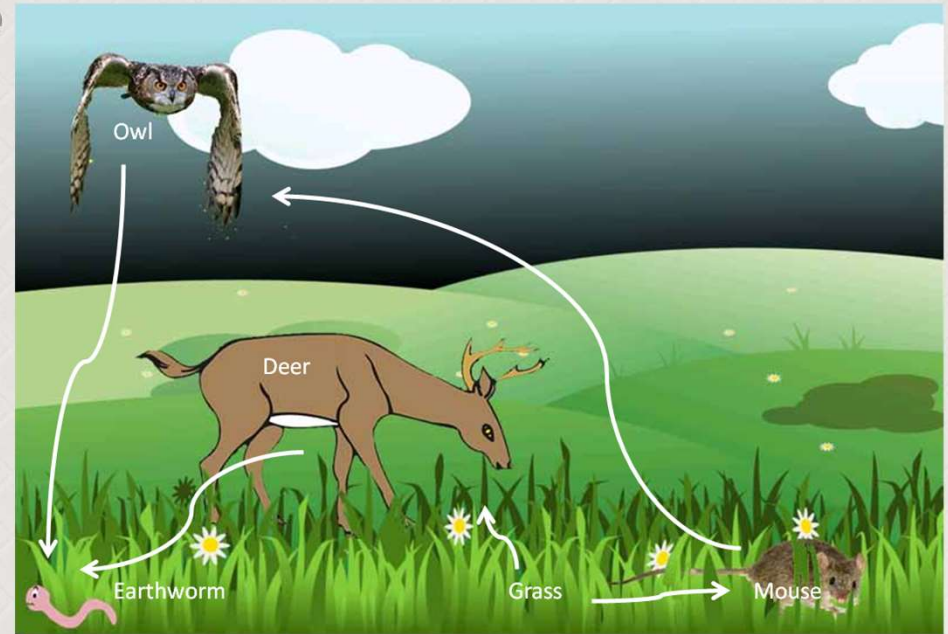
All living things are affected by their environment. Both the living and non-living parts of an environment can have impacts on the well-being of an organism.



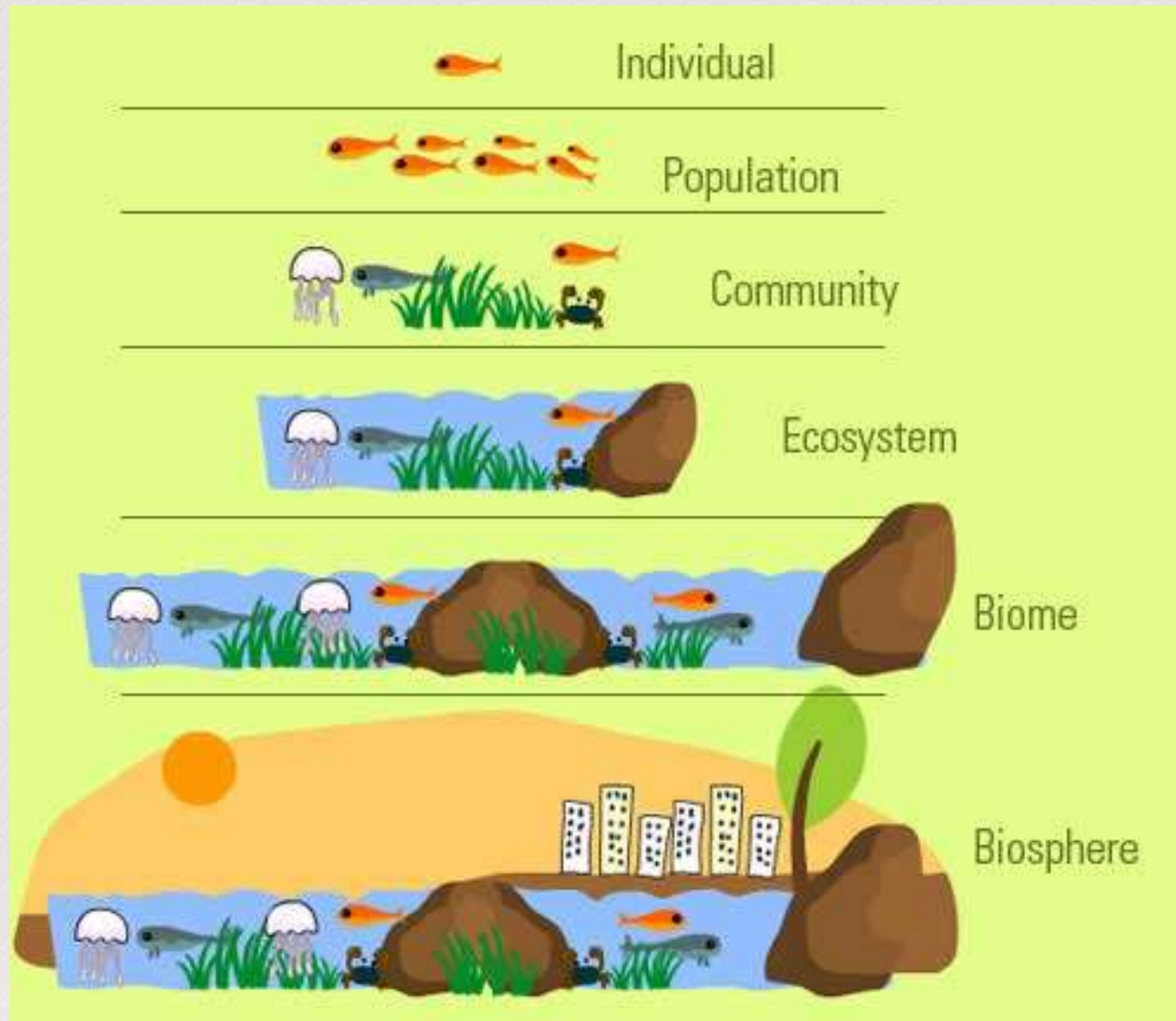
How Organisms Interact in Ecosystems

Scientific studies about a specific organism can provide information about

- *food preferences*
- *eating habits*
- *size of territory*
- *interactions with others in the ecosystem.*



Levels of Organization



Population

Population: a group of individuals of the same species living together in 1 ecosystem.

Populations can vary in size depending on

- species
- time of year
- weather
- amount of available food



Habitat

Habitat: the food, water and shelter that make up where an organism lives

Individuals of the same population compete for the resources in their habitat

How this sharing of resources occurs determines

- *how far apart the organisms must live*
- *how big the population can get*



Habitat Example: Rough Skinned Newt

- *Young larvae live in water and eat aquatic bugs*
- *Adults live under logs and eat slugs and worms*



Communities

Populations share their environments and interact with other populations.

Community: Made up of all interacting populations that live in an area



Ecosystem

Ecosystems include abiotic and biotic parts.

Communities can be impacted by average sunlight, temperature and rainfall.

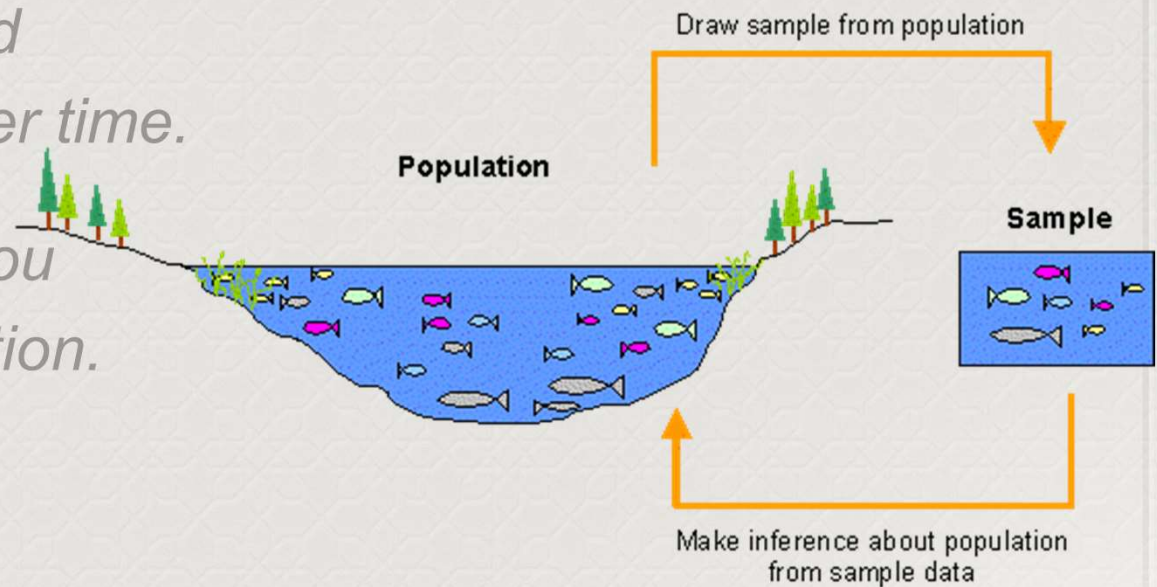


Sampling Populations

Ecologists study ecosystems to learn about relationships between organisms and population changes over time.

In small ecosystems, you could count the population.

In large ecosystems, sampling is the best technique



Sampling Population

Sampling: observing a small part of the population to create estimations and inferences about the larger group

