

Arts and Science college, Pulgaon

Department of Zoology

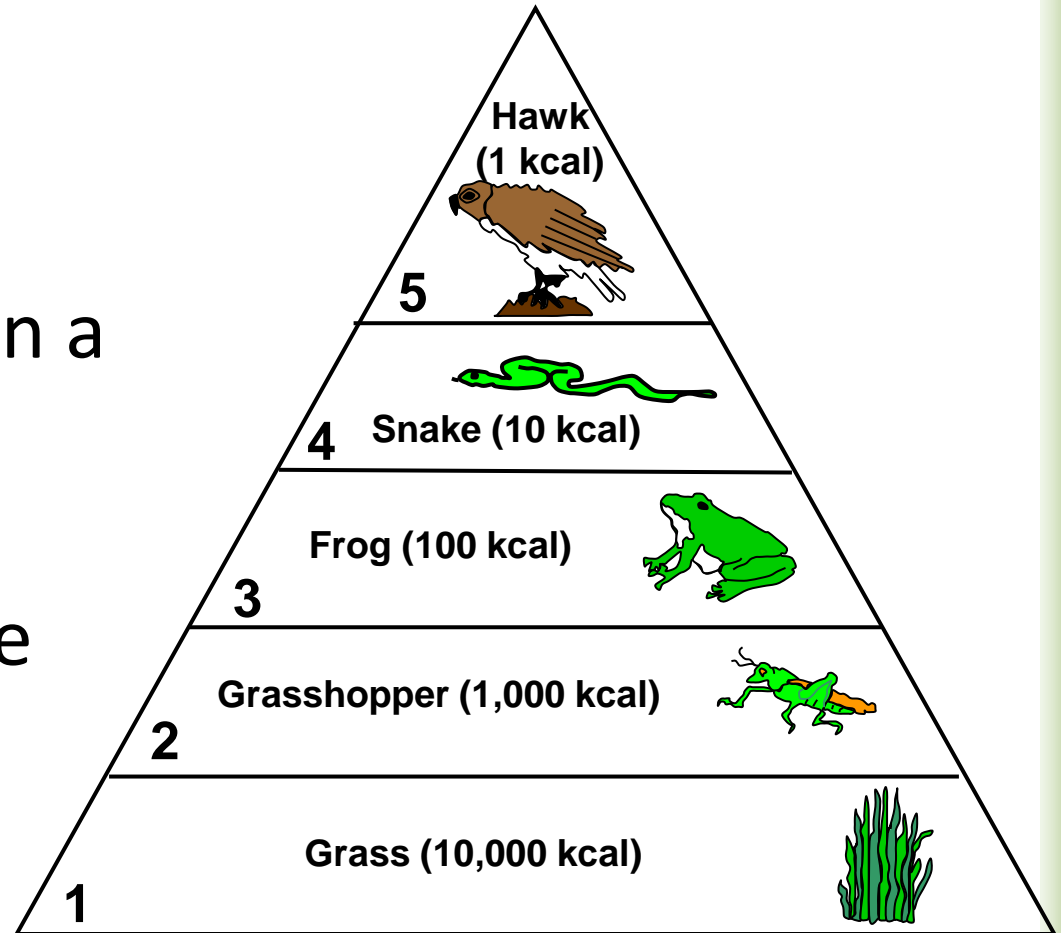
Topic: Ecological Pyramid

B. Sc. SEM I (Zoology)

2017-2018

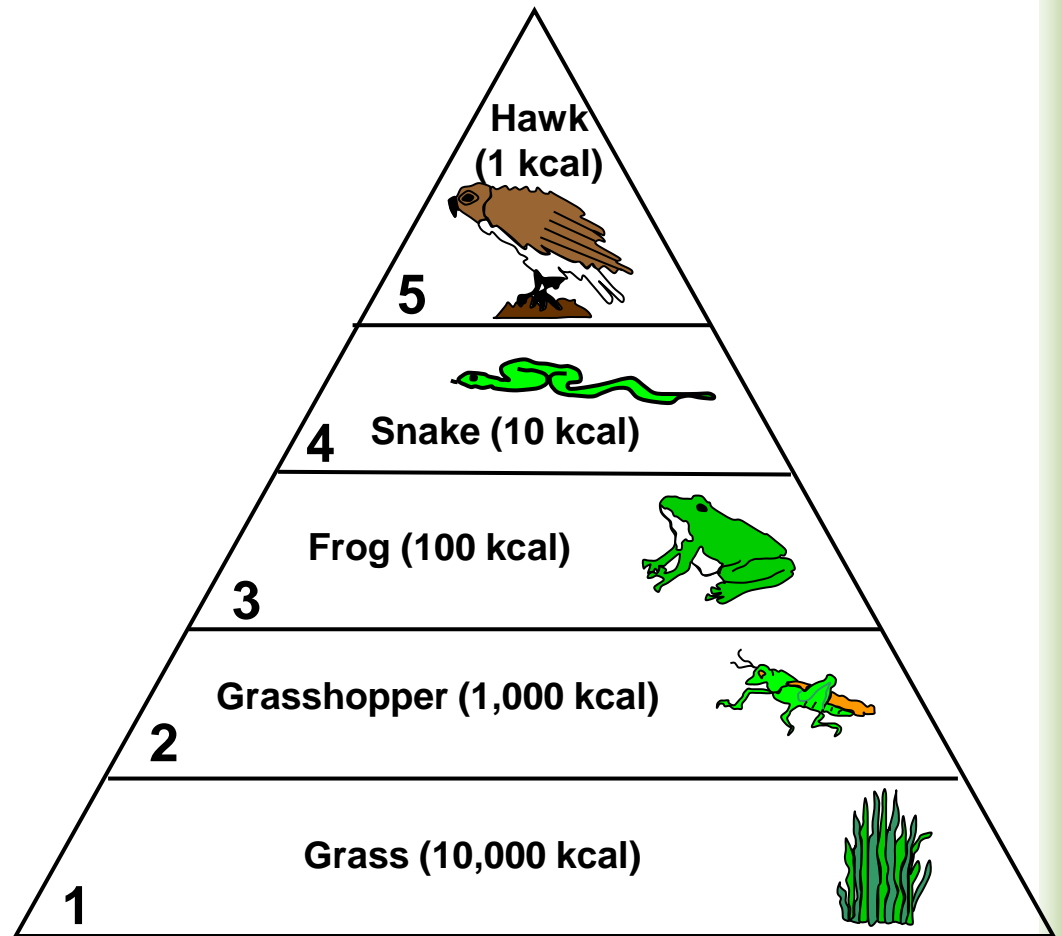
Ecological Pyramids

- Instead of representing trophic levels in a food web, an ecological pyramid can be used.



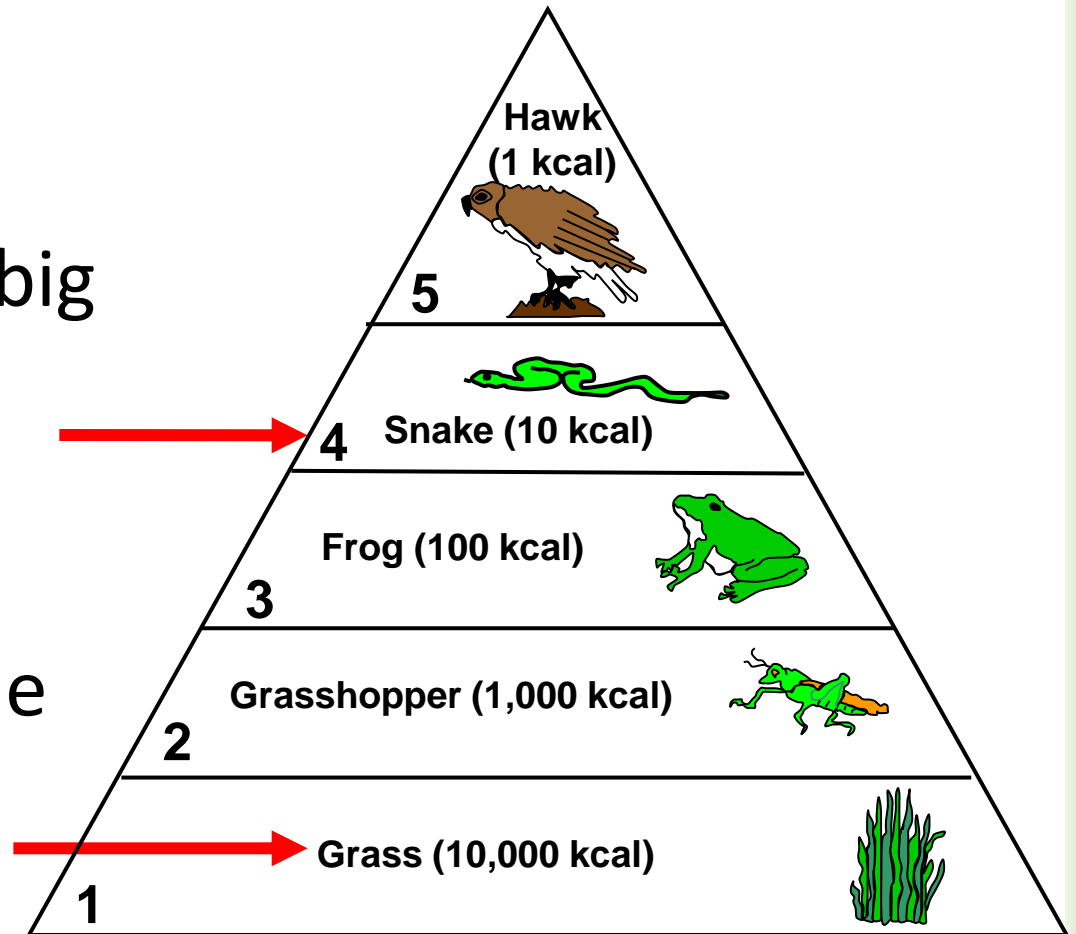
Ecological Pyramids

- Does this pyramid represent a food chain or web?
- How could this pyramid be changed to represent a food web?



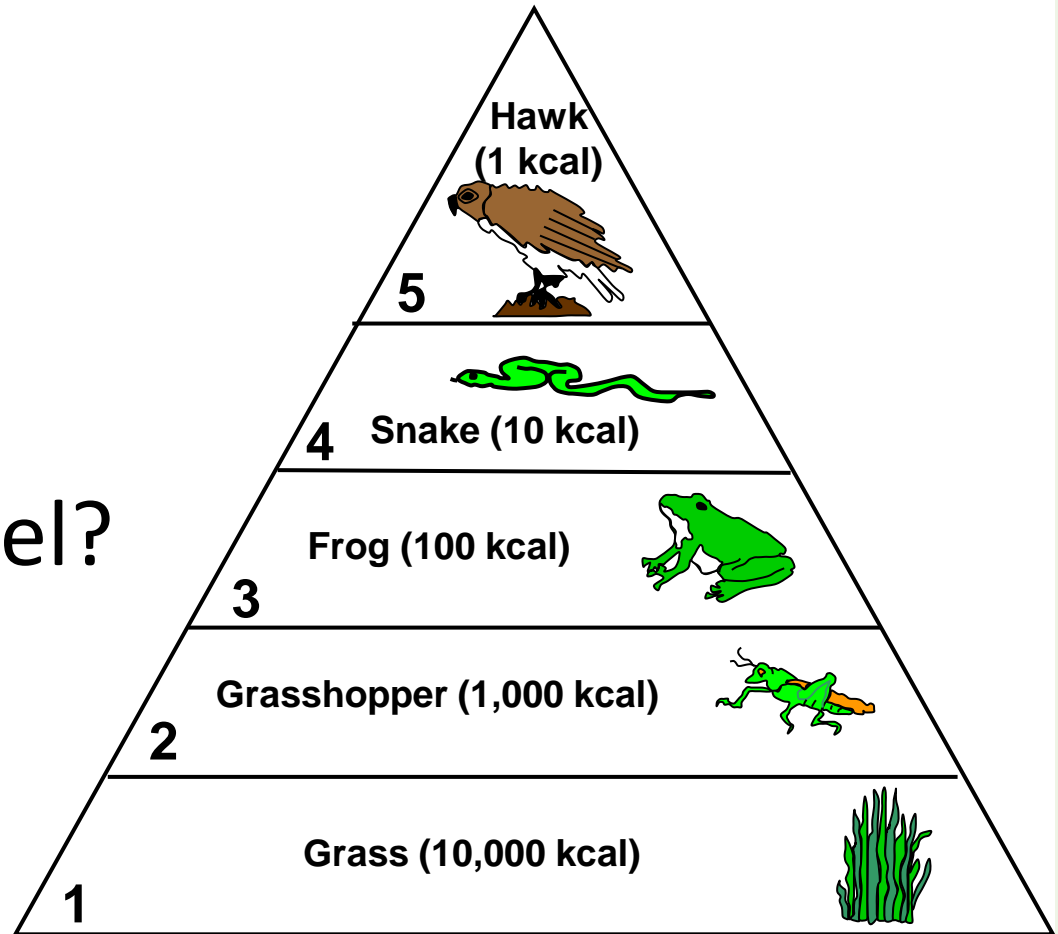
Ecological Pyramids

- What do the big numbers represent?
- What does the kcal mean?



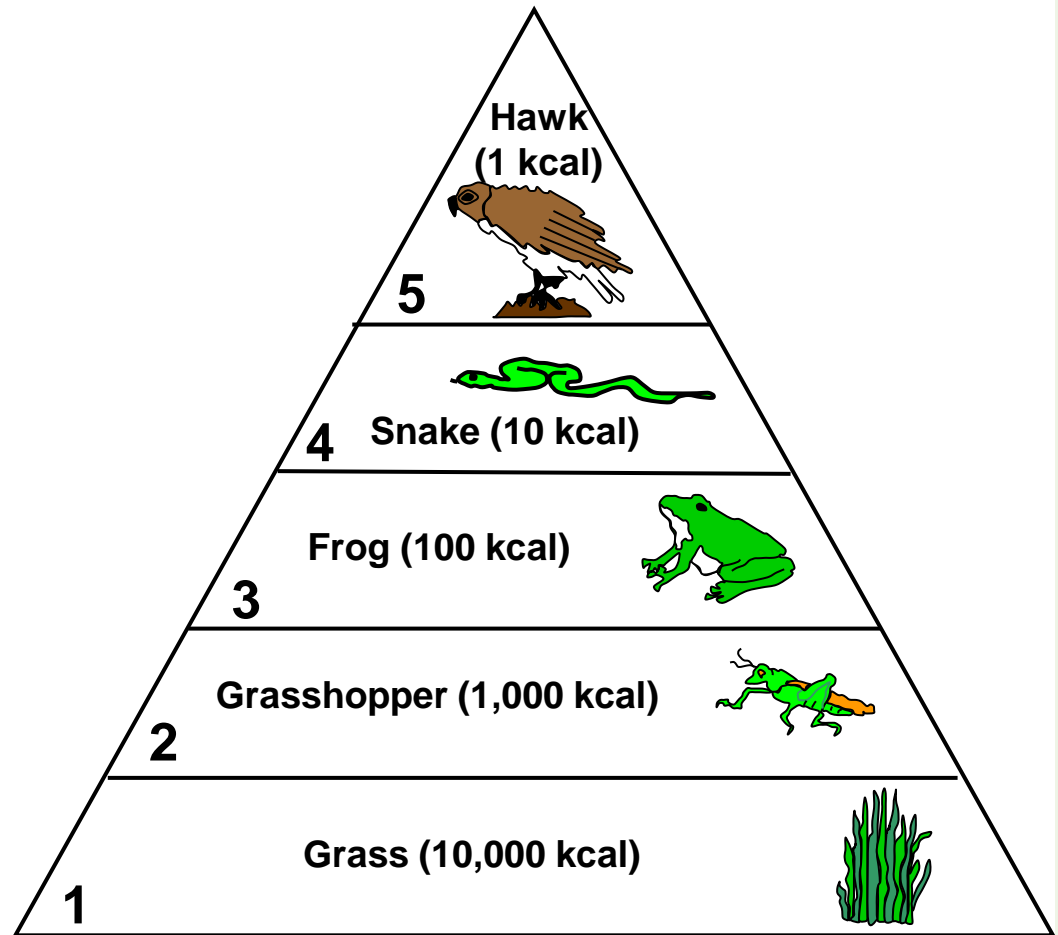
Pyramid of Energy

- What happens to the energy as you go up?
- How much energy is available for the next level? (What %)

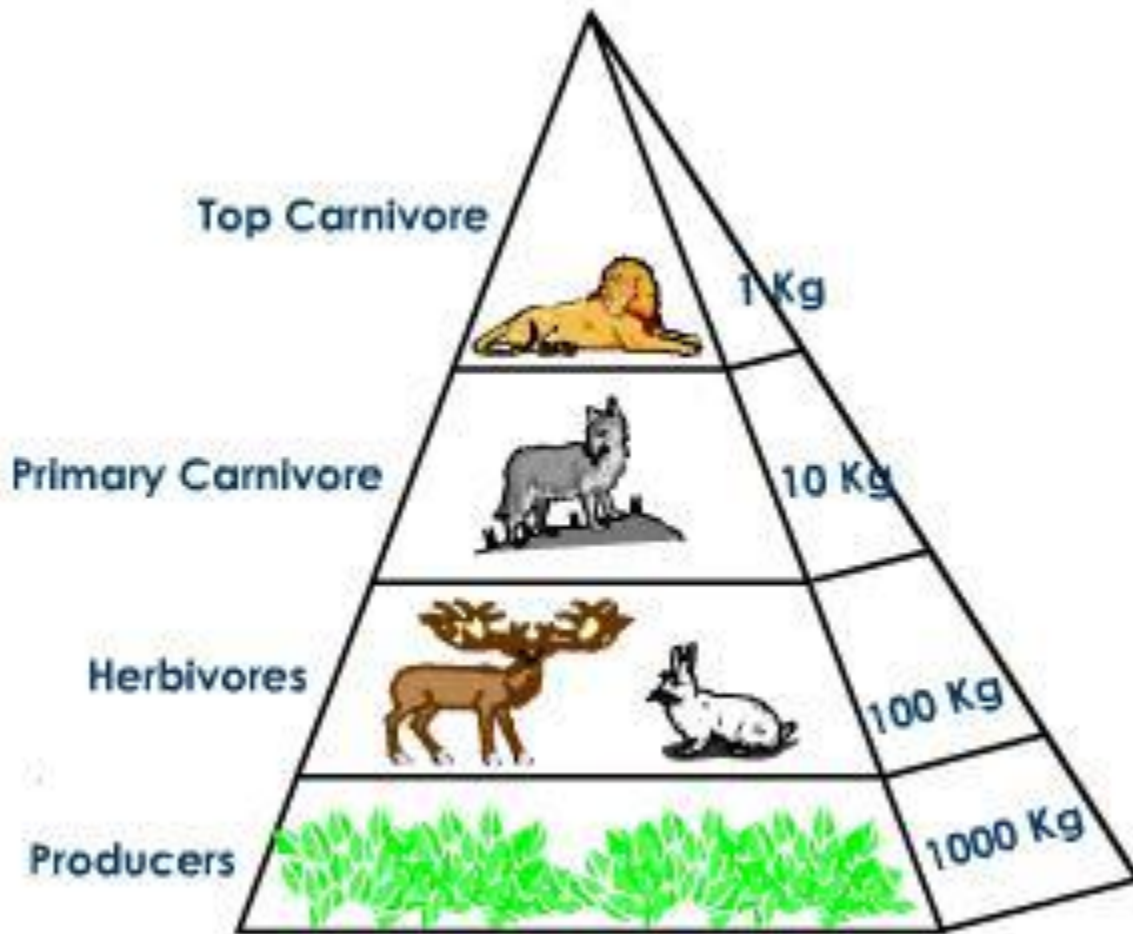


Pyramid of Energy

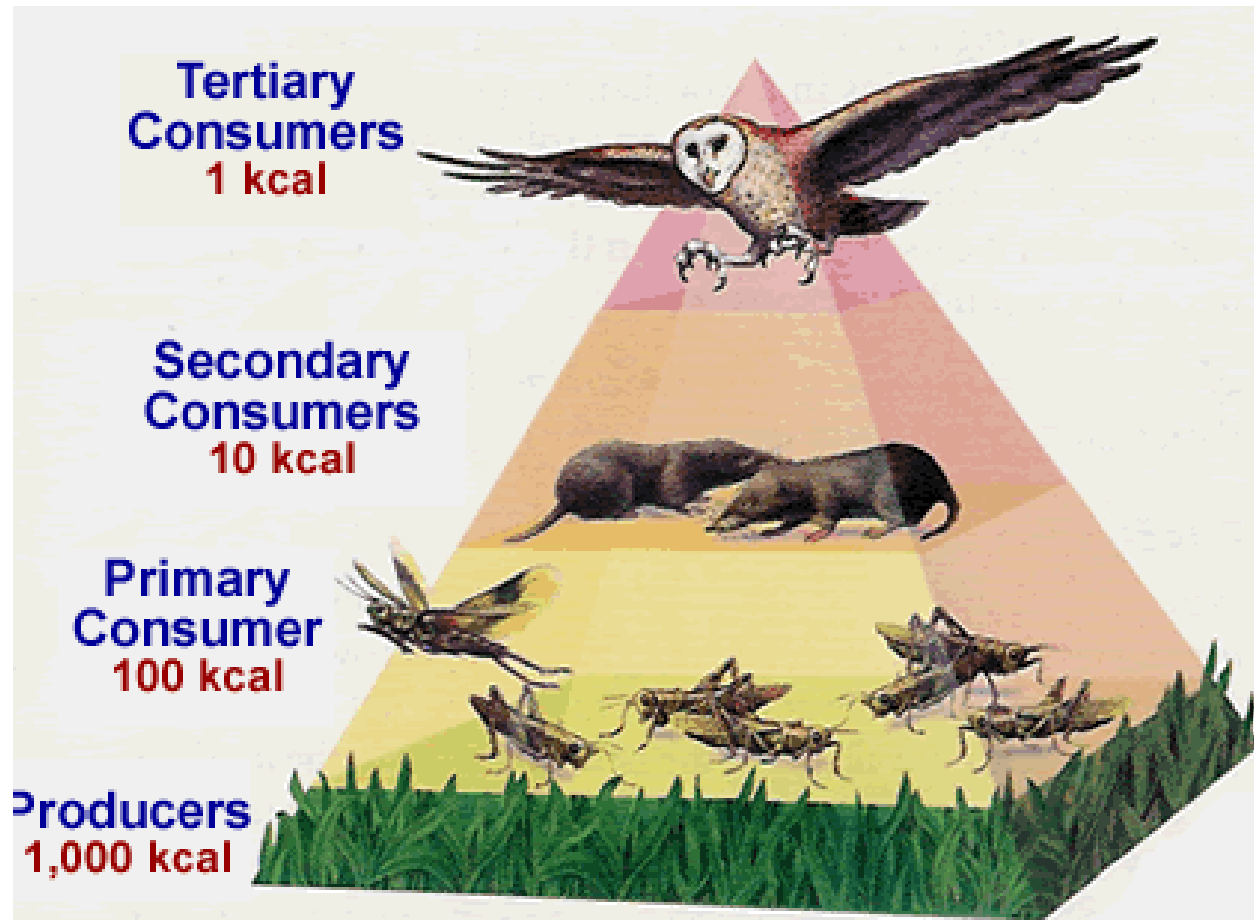
Pyramids of energy show the relative amount of energy available at each trophic level of a food chain or food web.



Pyramid of Energy

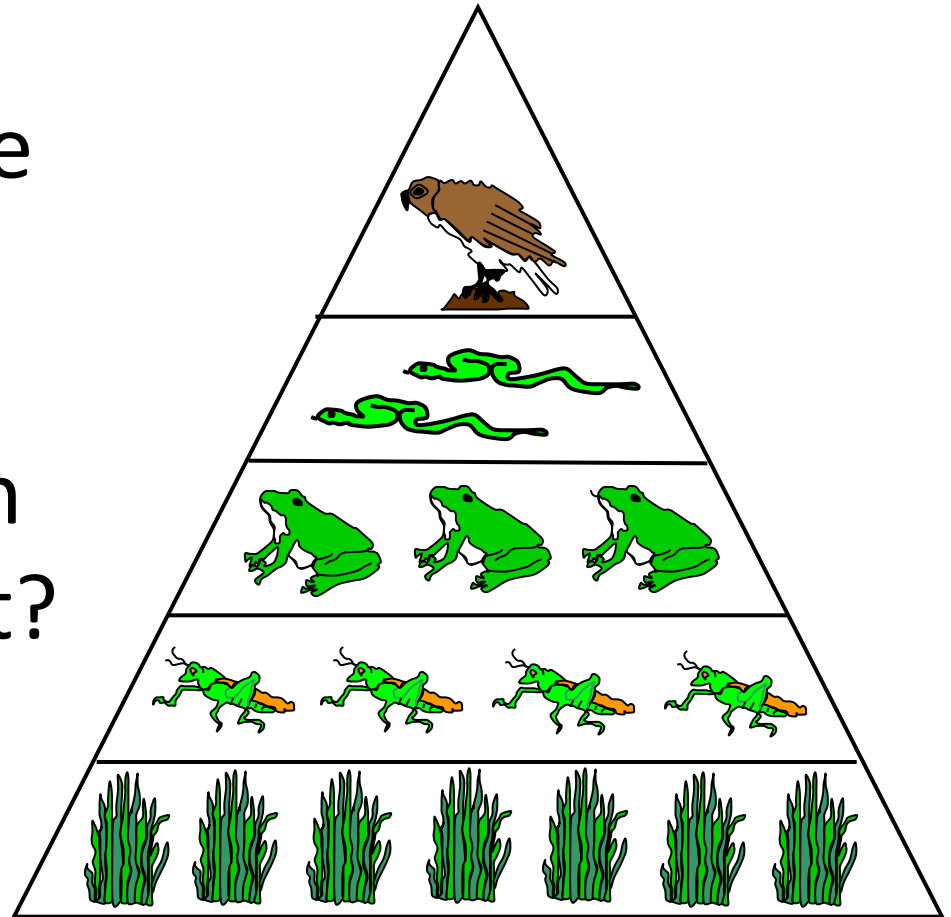


Pyramid of Energy



Ecological Pyramids

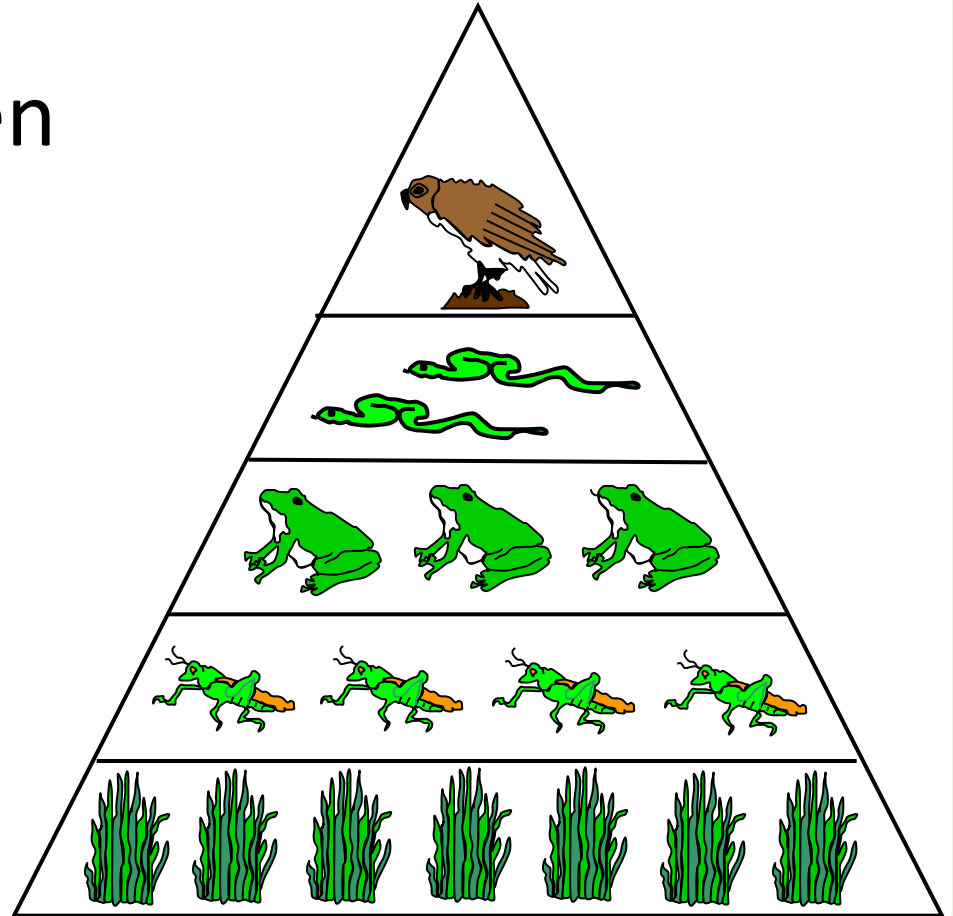
- How is this pyramid different from the previous ones?
- What could the multiple pictures of the species at each level represent?



Pyramid of Biomass

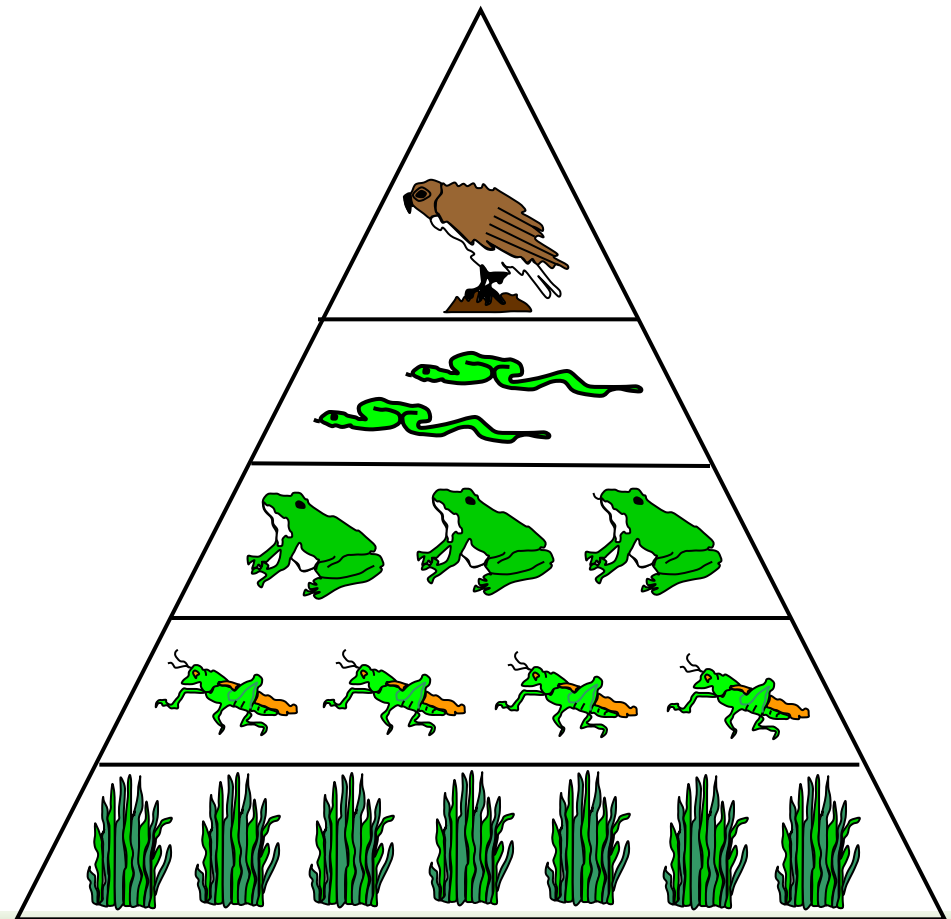
Biomass-the total amount of living tissue within a given trophic level.

A pyramid of biomass illustrates the relative amount of living organic matter available at each trophic level

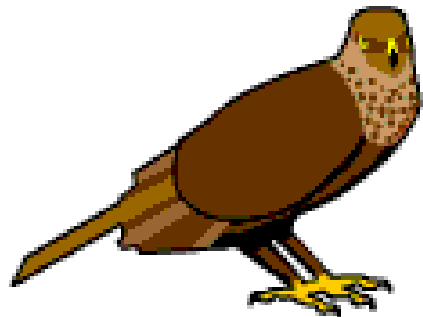


Pyramid of Biomass

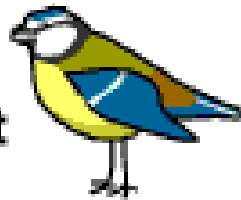
- What information would this pyramid include if it were a pyramid of biomass?
- How do they get a number total for the biomass of a population?



Pyramid of Biomass



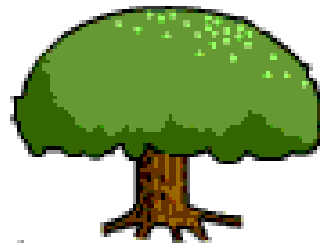
Sparrowhawk



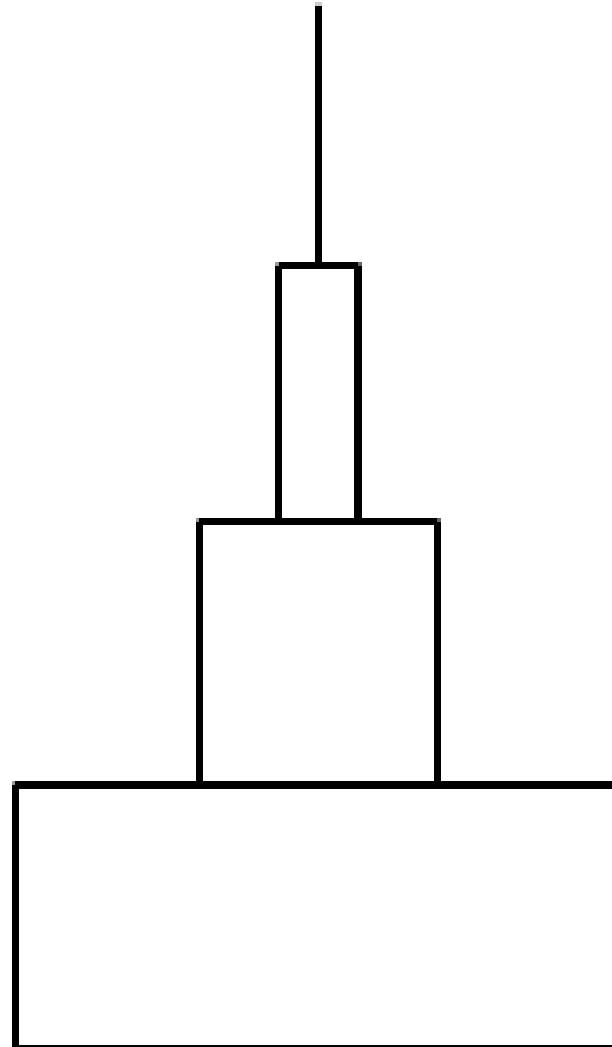
Bluetit



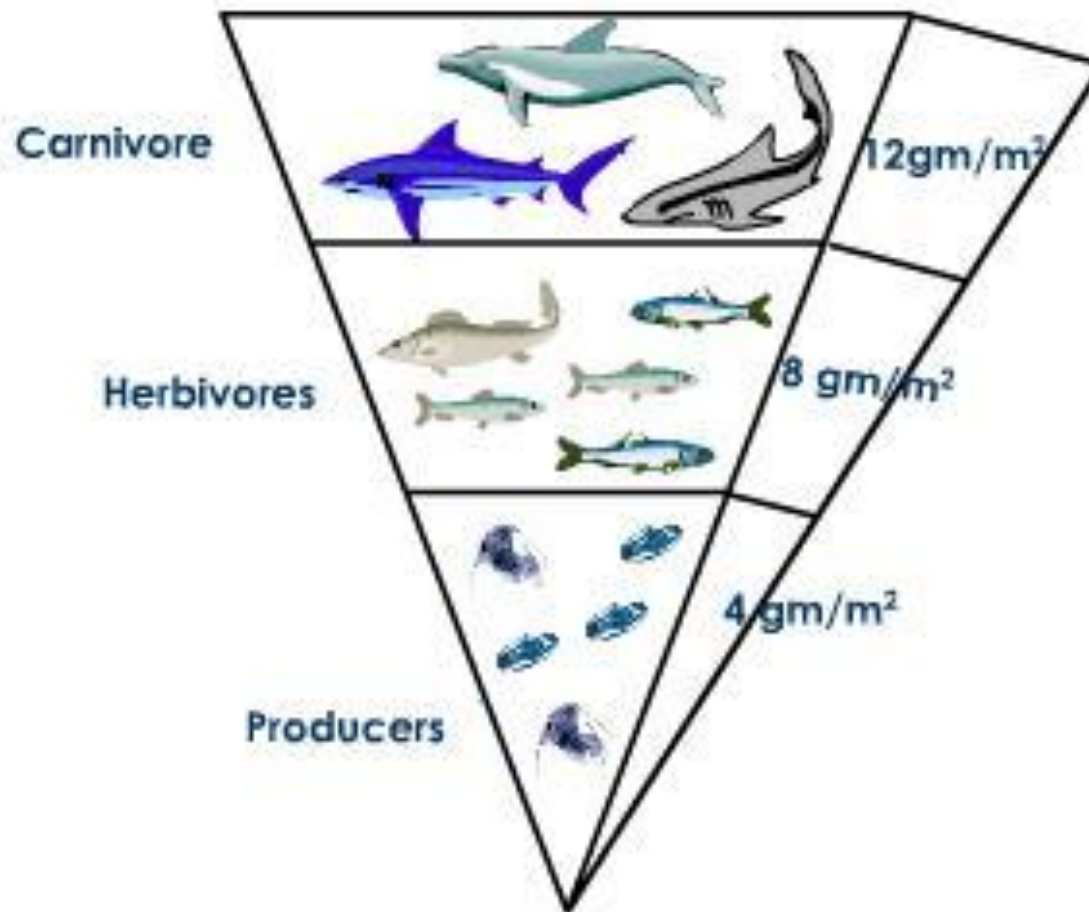
Caterpillar



Oak tree

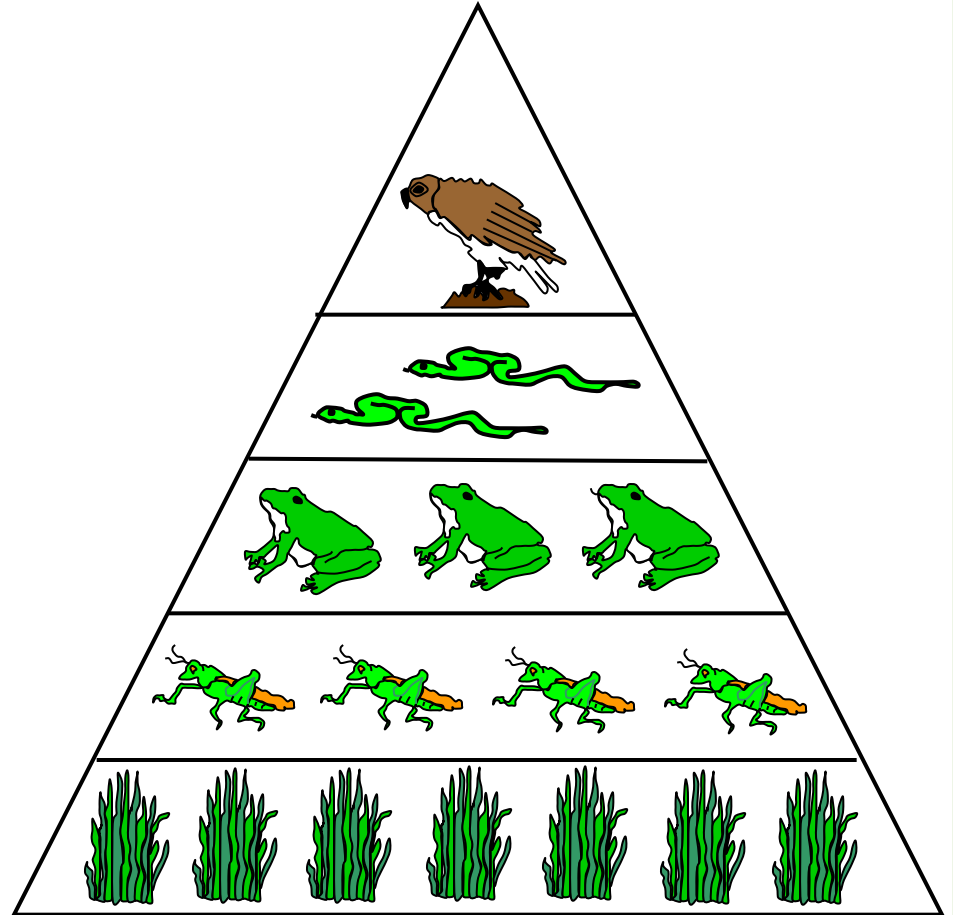


Pyramid of Biomass



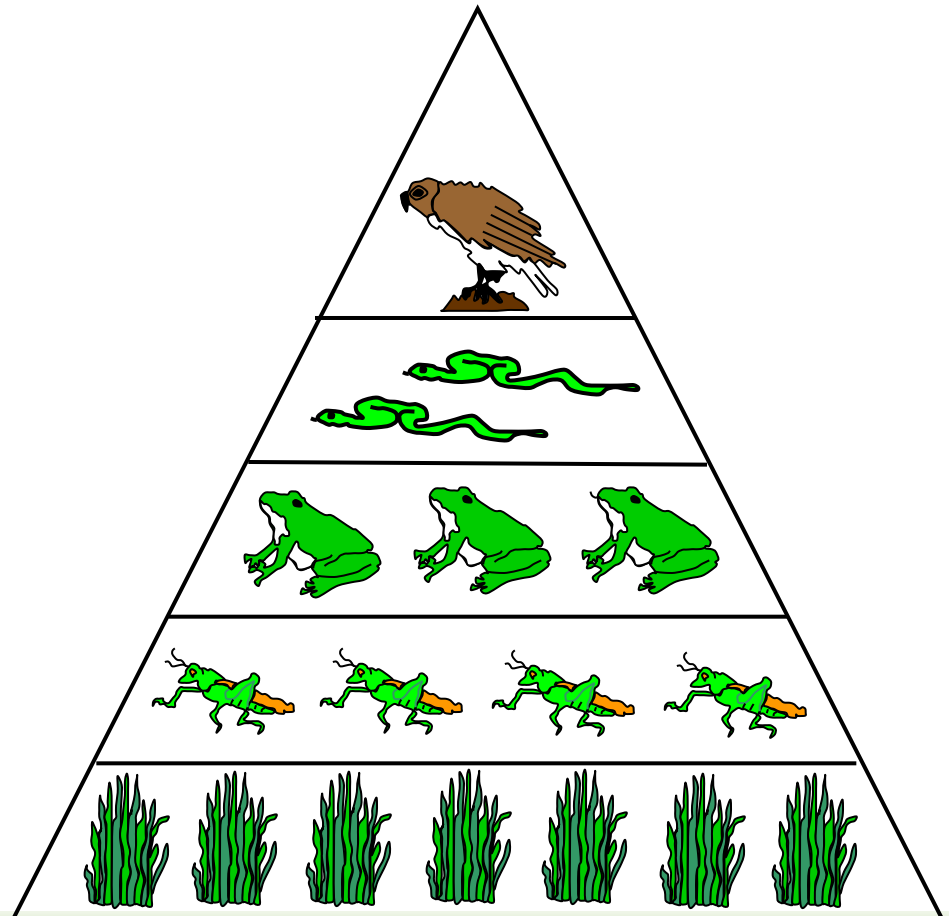
Pyramid of Numbers

A pyramid of numbers shows the relative number of individual organisms at each trophic level.

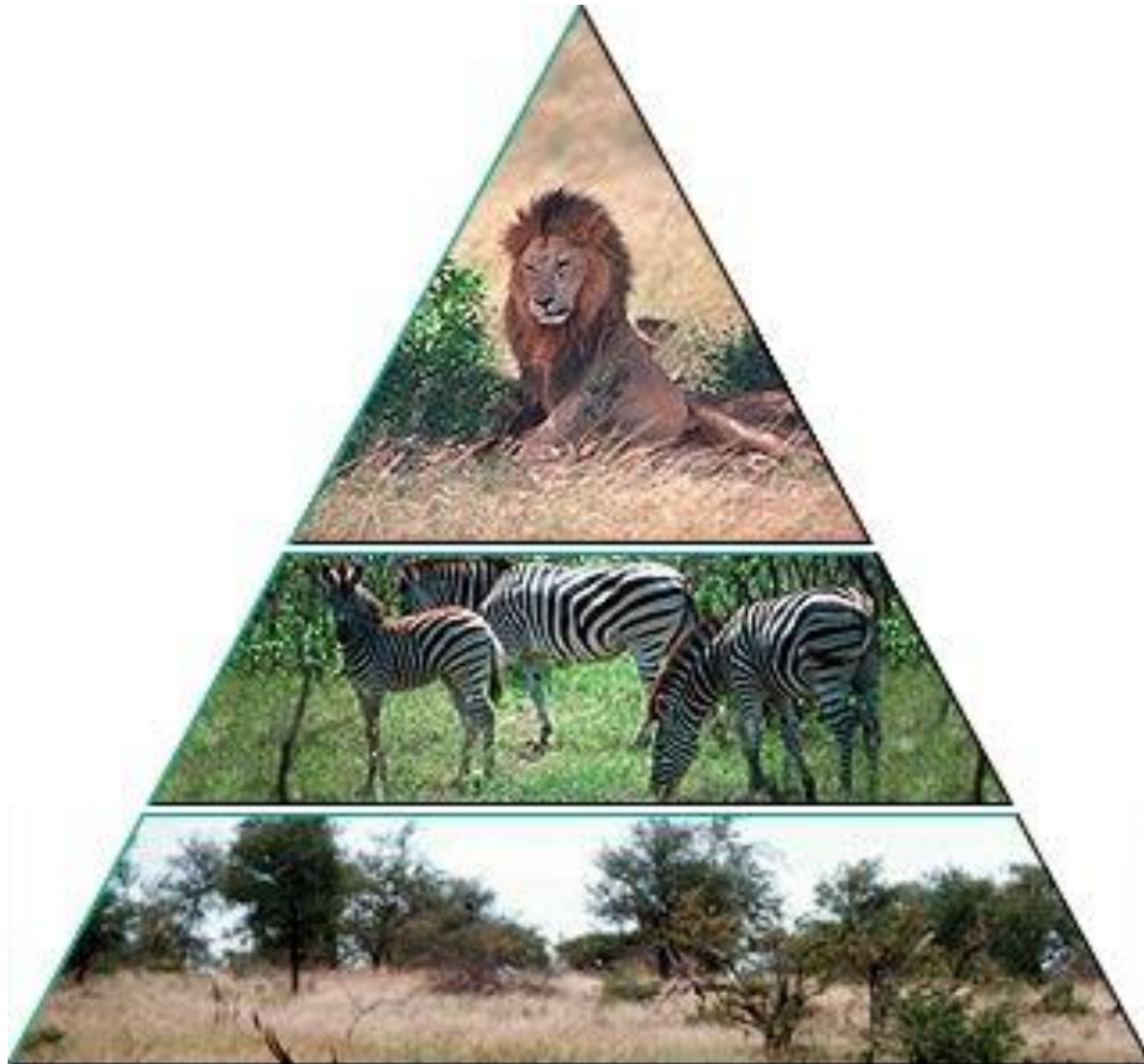


Pyramid of Numbers

- What information would this pyramid include if it were a pyramid of numbers?
- How do they get a number total for a population of organisms?




Pyramid of Numbers



Pyramid of Numbers



Woodpecker
(Secondary consumer)



Insects
(Primary consumer)

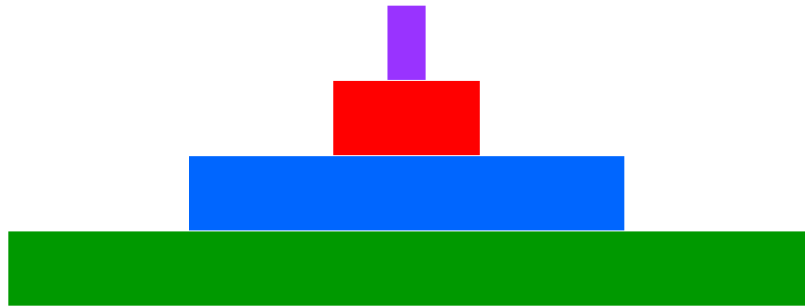


Oak tree
(Producer)



Pyramids of Aquatic Ecosystems

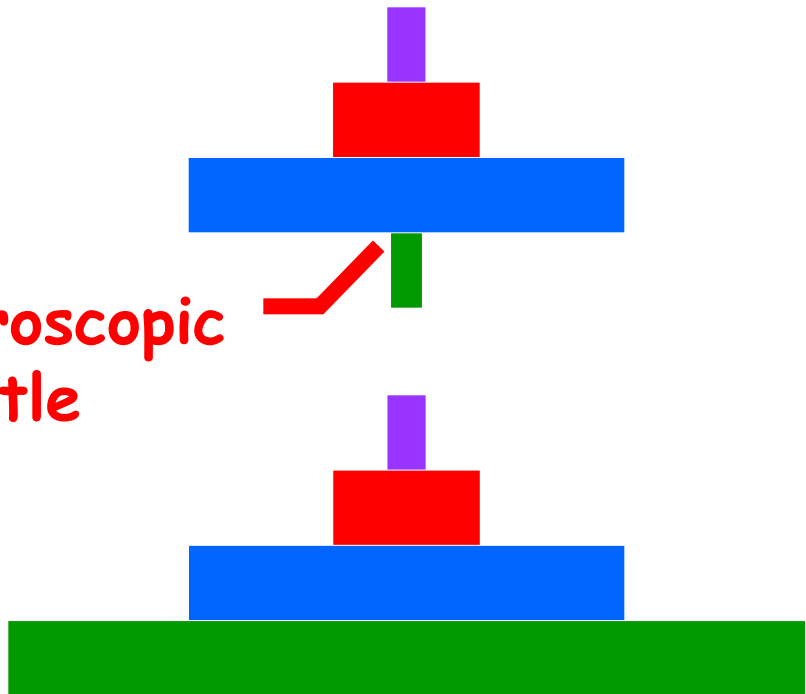
- Numbers



- Biomass

Phytoplankton are microscopic and weigh very little

- Energy



Pyramids of Temperate Forests

- Numbers

Trees are huge but not as numerous as many smaller forest creatures.

- Biomass

- Energy

