

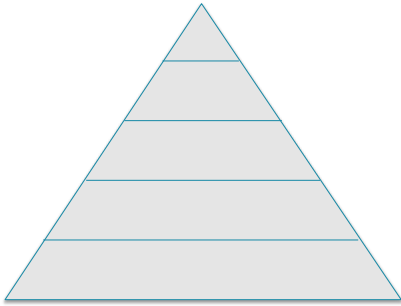


INTRODUCTION TO ECOLOGY

ECOLOGY

- **Ecology**- the study of the relationship between organisms and their environment
- WE STUDY PATTERNS AND TRY TO EXPLAIN THEM...

ORGANIZATION OF ECOLOGY



VOCABULARY

1. **abiotic factor**
 - chemical or physical factors; non-living factors that affect living organisms
2. **biotic factors**
 - LIVING factors that affect living organisms

ABIOTIC OR BIOTIC?

- Predator
- soil pH (acid or basic)
- light intensity
- bacterial/viral disease
- annual precipitation
- Pollution
- Plants
- CO₂ levels

CHECK YOUR ANSWERS

Abiotic

- Soil pH
- Light intensity
- Annual precipitation
- Pollution
- CO₂ levels

Biotic

- Predators
- Infections
- plants

VOCABULARY

3. Population

- same species, compete for the same resources, and are interbreeding.

4. Community

- collection of populations that share the same resources; many different species

VOCABULARY

5. Ecosystem

- relationship between organisms, abiotic factors, and the habitat

6. Biosphere

- part of the earth and its atmosphere that can support life

MORE VOCABULARY

7. Habitat

- physical space/area in which an organism lives

8. Niche

- status of the organism within its habitat and community
- its "job" or way of life

POLAR BEAR

Habitat

- Alaska, Canada, Greenland
- associated with packed snow
- average temp= sub zero
- seals, eggs, vegetation

Niche

- Predator
- Breeds April through June
- Prefer solitary except mother/cub pairs; mating season; abundant food sources

BACK TO THE ORIGINAL IDEA

- Any change at one level effects all other levels...
 - "Ripple Effect"
- THINK ABOUT:
 - Why is it that the number of people with Lyme Disease directly correlates with the annual rainfall for the previous year?

BACK TO THE ORIGINAL IDEA

