

Fire and Ice: Survival in Harsh Habitats

- I. Tundra and Desert: What Do You See?
- II. Biomes: Determined Primarily by Climate and Soil
- III. Tundra and Desert Compared
 - a. Physical characteristics: temperature, soil, precipitation
 - b. Plant adaptations
 - c. Animal adaptations
- IV. Thermoregulation
 - a. Why?
 - i. Q10 generalization: For every 10 C increase in temperature, the rate of chemical reactions approximately doubles.
 - ii. Enzymes: proteins that are catalysts in cells...make reactions proceed faster.
 - b. When people get cold, why do fingers and toes become cold first and why do we have the urge to urinate?
 - c. Mechanisms of heat transfer
 - d. Thermoregulation terms: poikilotherm, homeotherm, ectotherm, endotherm
 - e. How to avoid being too cold?
 - f. How to avoid being too hot?
- V. Osmoregulation and Water Balance