

## Chapter 4- Population Biology

- I. 4.1 Population Dynamics
  - A. Three important characteristics of a population are its:
    1. Geographic distribution
    2. Density
    3. Growth rate
  - B. Three factors that affect population size:
    1. Number of births
    2. Number of deaths
    3. Number of individuals that enter or leave the population
  - C. Under ideal conditions and with unlimited resources, a population will continue to grow in a pattern called exponential growth
    1. As resources are used up and population growth slows or stops, the population exhibits logistic growth
  - D. Density –dependent limiting factors include:
    1. Competition
    2. Predation
    3. Parasitism
    4. Disease
  - E. Unusual weather, natural disasters, seasonal cycles, and certain human activities- such as damming rivers and clear-cutting forests are all examples of density-independent limiting factors
- II. 4.2 Human Population
  - A. Like the populations of many other living organisms, the size of the human population tends to increase with time
  - B. The characteristics of populations, and the social and economic factors that affect them, explain why some countries have high population growth rates while populations of other countries grow slowly or not at all.