



CHAPTER 5: BIODIVERSITY, SPECIES INTERACTIONS, AND POPULATION CONTROL

5-1 How Do Species Interact?

- Species Interact in Five Major Ways



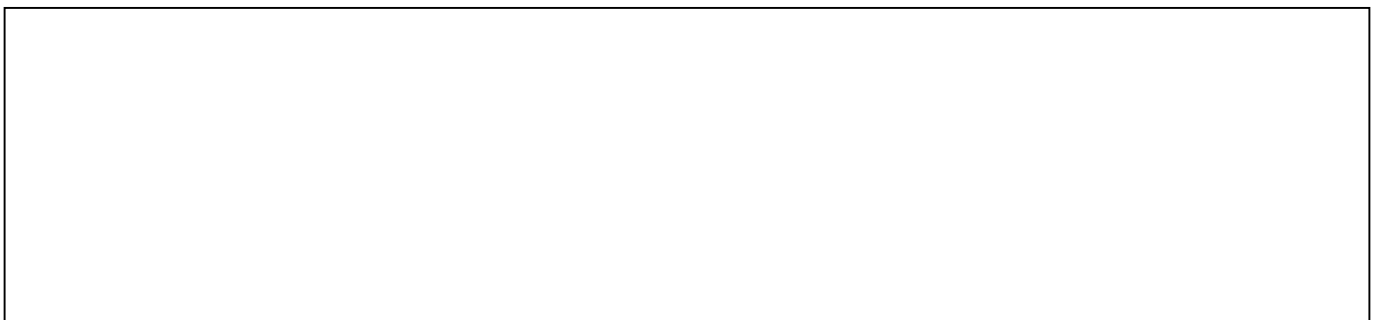
- Most Species Compete for Certain Resources




- Some Species Evolve Ways to Share Resources




- Most Consumer Species Feed on Live Organisms...



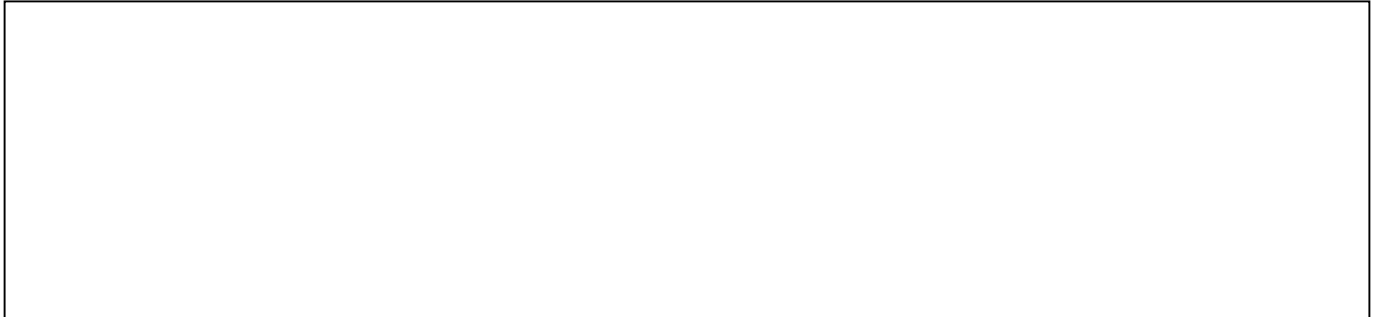
● Predator-Prey Interactions Can Drive Evolution



● Some Species Feed off Other Species by Living On or Inside Them



● In Some Interactions, Both Species Benefit



● In Some Interactions, One Species Benefits, the Other is Not Harmed



5-2 What Limits the Growth of Populations?

- Most Populations Live in Clumps

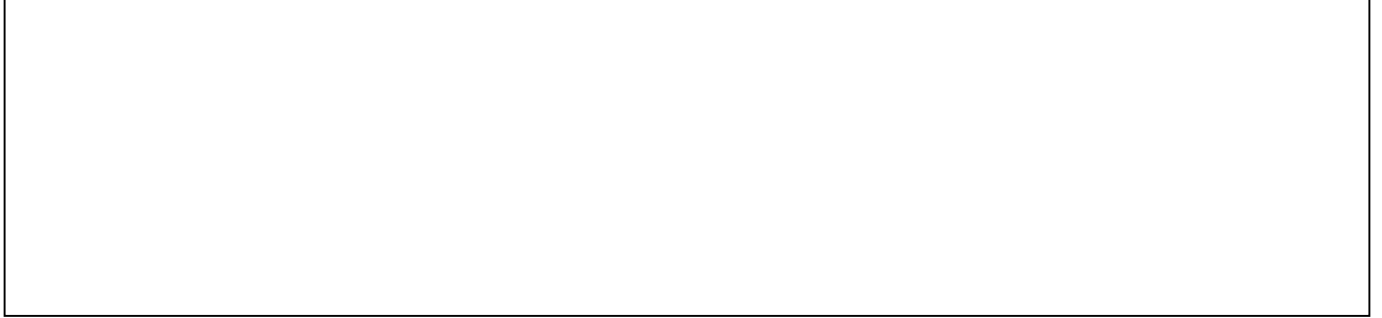
- Populations Can Grow, Shrink, or Remain Stable

- Some Factors Can Limit Population Size

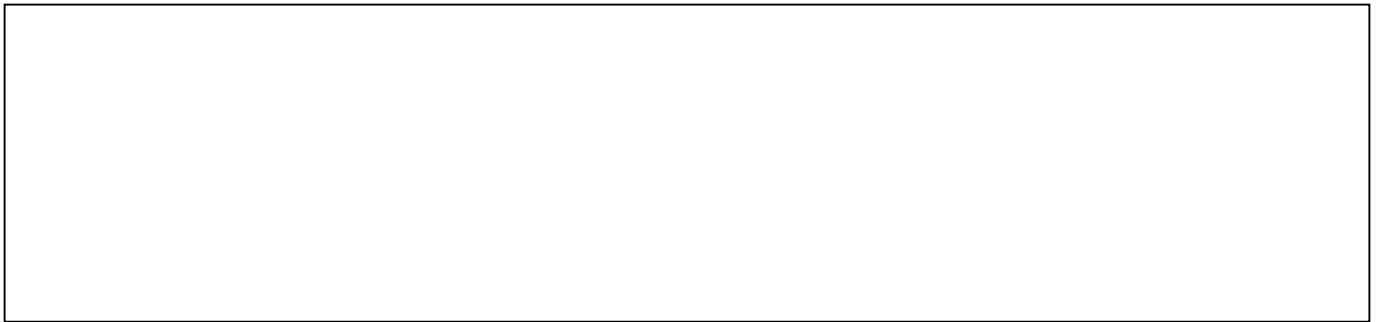
- No Population Can Grow Indefinitely: J-Curves and S-Curves

Diagrams:

● Exploding White-Tailed Deer Populations in the US



● When a Population Exceeds Its Carrying Capacity It Can Crash



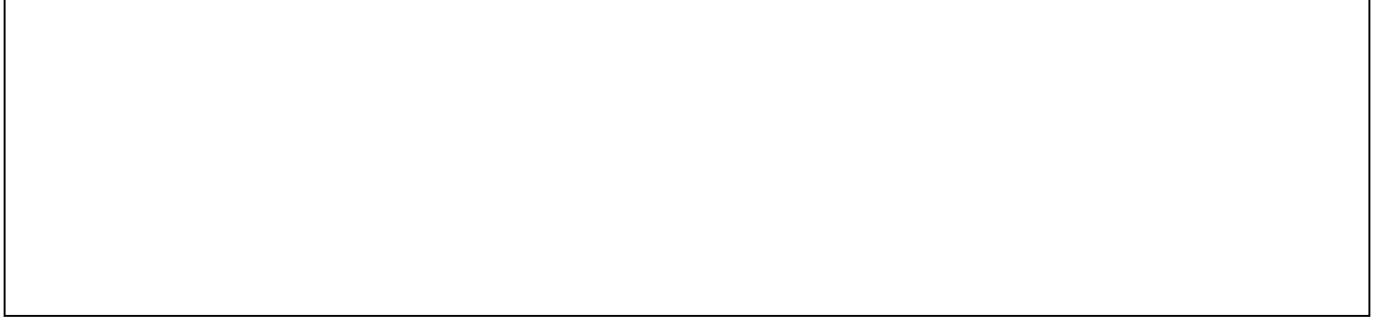
● Species Have Different Reproductive Patterns



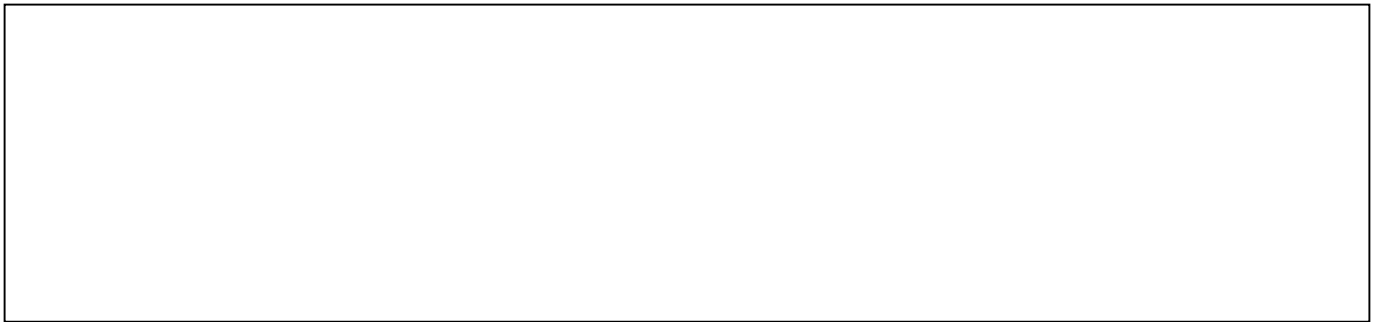
● Population Density Can Affect Population Size



• Several Different Types of Population Change Occur in Nature

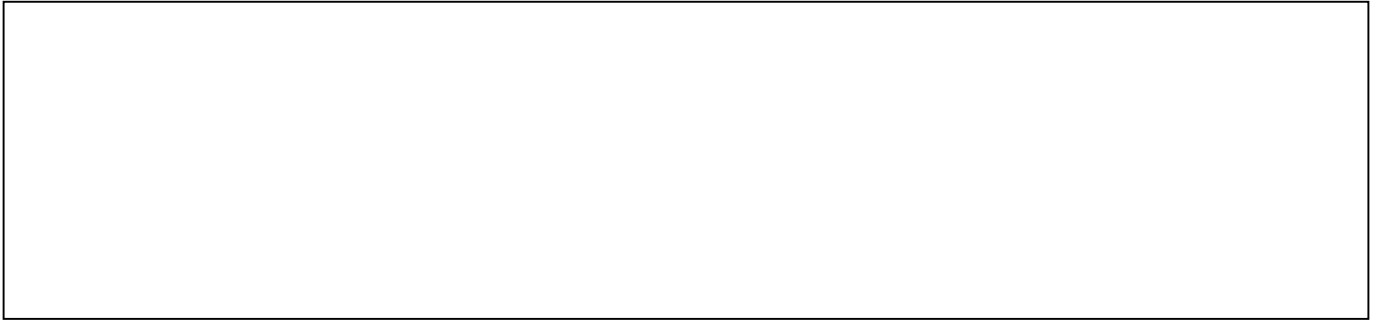


• Humans Are Not Exempt From Population Controls



5-3 How Do Communities and Ecosystems Respond to Changing Environmental Conditions?

- Ecological Succession



Diagrams:

- Succession Does Not Follow a Predictable Path



- Living Systems Are Sustained through Constant Change

