

CHAPTER 55: Population Ecology

1. Describe how humans have tried to control populations in Australia.

2. How can an ecologist estimate the numbers of individuals in a population?

3. What are some possible difficulties in counting populations?

4. What is shown by the life table on page 1170?

5. Compare the three survival strategies (survivorship curves) and give an example of each:

- _____
- _____
- _____

6. Write the formula for population growth without limits. Define each of the terms. What type of growth is this called?

7. Define carrying capacity (K).

8. Write the formula for population growth with limits. Define each of the terms. What type of growth is this called?

9. What happens to a population when the number of individuals approaches carrying capacity?

10. Compare K-selected to r-selected speices. Give an example of each.

11. Identify factors that regulate population size.

12. Compare density-independent and density-dependent factors limiting populations.

13. How would you characterize human population growth?

14. Have humans reached K? What factors are significant when explaining our growth curve?

15. Why are some species more common than others?

16. What is the significance of a social structure towards population density?

17. Why does an introduced species new to an environment sometimes have a population explosion?

18. Give an example of how distant events can influence local population densities,

19. What is a biological control? What are the dangers of using biological controls?
