Populations: Structure and Life Tables
Study Guide

TEXT READINGS

pp. 73-81

VOCABULARY

- population
- modular organism
- unitary organism
- genet
- ramet
- clone
- age structure
- natality
- mortality
- survivorship
- life expectancy
- life table
- dynamic life table
- static life table
- cohort

STUDY QUESTIONS

1. Explain the fundamental differences between unitary and modular organisms in terms of what constitutes the individual.

2. In a modular organism, is the ecologically-relevant unit the genet or the ramet? Explain and justify your answer.

3. In a modular organisms, is the evolutionarily-relevant unit the genet or the ramet? Explain and justify your answer.

4. Draw age structure diagrams that illustrate growing and declining populations.

5. What conditions are required to sustain a stable age structure to a population?

6. If you didn’t know the ages of individuals in a population, what approaches might you employ to determine the age structure of the population? Be sure to identify any assumptions made in these approaches.

7. Diagram and describe the three basic types of survivorship curves exhibited by organisms. Provide examples of organisms characteristics of each type.

8. Given information regarding the age structure of a population and age-specific fecundity, you should be able to calculate the important parameters of a life table: survivorship ($l_x$), probability of dying ($m_x$), probability of surviving ($s_x$), and life expectancy ($e_x$).