Ch 16. Evolution of Populations

1. Genes and Variation
2. How Common is Genetic Variation?

1.

1. Variation and Gene Pools

1.

1. Sources of Genetic Variation
2. Mutations

a.

1. Gene Shuffling

a.

1. Single-Gene and Polygenic Traits

1.

1. Evolution of Genetic Change
2. Natural Selection on Single-gene Traits

1.

1. Natural Selection on Polygenic Traits
2. Directional Selection
3. Stabilizing Selection
4. Disruptive Selection
5. Genetic Drift

1.

1. Evolution versus Genetic Equilibrium
2. Random Mating
3. Large Population
4. No movement into or out of the Population
5. No Mutations
6. No Natural Selection
7. The Process of Speciation
8. Isolating Mechanisms
9. Behavioral Isolation
10. Geographic Isolation
11. Temporal Isolation
12. Testing Natural Selection in Nature
13. Variation
14. Natural Selection
15. Speciation Darwin’s Finches
16. Founders Arrive
17. Geographic Isolation
18. Changes in the Gene Pool
19. Reproductive Isolation
20. Ecological Competition
21. Continued Evolution
22. Studying Evolution since Darwin
23. Limitations to Research
24. Unanswered Questions

NOTES, FIGURES, KEY CONCEPTS