Carrying Capacities and Resources Study Guide

1. What is a niche?

Organism’s role in an ecosystem

1. How can several species occupy the same area?

They occupy different niches

1. What is symbiosis? Define the following
   1. Commensalism-Relationship where one species benefits, and one is neither harmed nor helped
   2. Mutualism-Relationship where both species benefits
   3. Parasitism-Relationship where one species benefits and one species is harmed
2. What is immigration?-Entering a new population, population would increase
3. What is emigration?-Exiting a population, population would decrease
4. How does birth rate affect population growth?-It would increase population growth
5. How does death rate affect population growth?-It would decrease population growth
6. What is primary succession?-Succession after there is nothing left—start over with a pioneer species
7. What is secondary succession?-Succession after disturbance but life is left to rebuild from
8. What is exponential growth?-constant growth, unlimited resources (J-curve on graph)
9. What is logistic growth?-population gradually increases and then stops when it reaches carrying capacity (S-curve on graph)
10. What is carrying capacity?-The maximum amount of individuals a species can have in an environment
11. What happens to population growth as resources become limited?-The population growth would decrease---organisms would die off
12. What are density-dependent limiting factors? Be able to identify examples-Depend on population being in the same area—disease, predators, parasites, lack of resources
13. What are density-independent limiting factors? Be able to identify examples-population can be spread out, but will be limited---natural disasters
14. How can we reduce human impact?-Limit cutting down trees, protect habitats
15. What did early hunters and gatherers in North America do?-Killed off large species by invading

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