



Habitat: The physical environment in which a species lives.(Ex: wetlands for ducks, barrens/ tundra for caribou

Species: a group of organisms that can naturally breed to produce fertile offspring.
(Example. Human)

Population: are members of the same species, living in the same ecosystem or habitat
Ex: moose on the Avalon Pen

Community: the collection of all populations of all species

Ex: forest: all birds, all rodents, moose, rabbits, foxes

Niche: refers to the role that a species plays within its ecosystem. In balanced ecosystems, each species occupies its own niche. To provide a description of a ecological niche, consider what would happen if the organism was removed from its habitat

Competitive Exclusion Principle : suggests that no two organisms can occupy the exact same ecological niche. If this were so, one organism would out compete the other and displace it from this niche. Thus, most niches have a minimal overlap there by reducing the extent of the competition.

Competition between organisms exists in every ecosystem. Organisms are forced to compete against their own species and also different species in order to survive. The stronger and more fit organisms have an advantage over those who are weaker, and they have a better chance of surviving . Competition is a biotic factor. Two types of competition:

- 1) **Intraspecific competition** : competition between members of the same species. This allows for “survival of the fittest”. The result is a healthier overall population. Example, birds of the same species compete for the best nesting grounds.
- 2) **Interspecific competition** : competition between members of two different species
For example the lion and the hyena both compete for zebra.

PART A: MULTIPLE CHOICE

1. What is the largest level of organization from the choices below?
 - (A) ecosystem
 - (B) organism
 - (C) population
 - (D) community
2. What level of organization is represented by a herd of cattle?
 - (A) organism
 - (B) population
 - (C) community
 - (D) ecosystem

3. What do several different populations living together make?
 - (A) a biosphere
 - (B) an organism
 - (C) a community
 - (D) an ecosystem

4. If crickets live in sandy soil, which habitat would be best for its needs?
 - (A) dessert
 - (B) forest
 - (C) grassland
 - (D) pond

5. A stingray belongs to which habitat?
 - (A) desert
 - (B) rainforest
 - (C) grassland
 - (D) ocean

6. The difference between a habitat and a niche is that a niche is
 - (A) The specific functional role of an organism.
 - (B) The organism's preferred habitat.
 - (C) The kind of place an organism occupies.
 - (D) None of the above.

7. Which term refers to the role of an organism within its community?
 - (A) habitat
 - (B) trophic level
 - (C) exotic species
 - (D) niche

8. A description of an organisms ecological niche includes _____.
 - (A) where it lives
 - (B) its role in the community
 - (C) its interactions with other species
 - (D) all of the above

9. The competitive exclusion principle says _____.
 - (A) no two species can occupy the exact same ecological niche at the same time
 - (B) the introduction of a non-native species will adversely affect the native species
 - (C) populations will stabilize at carrying capacity
 - (D) there must be more producers than consumers

10. When two different species overlap in the same biological niche, they are
 - (A) unaffected by one another.
 - (B) dependent on one another.
 - (C) in co-operation with one another.
 - (D) in competition with one another

11. Which of the following relations "correctly" describes the niche of a squirrel?
- (A) It lives in a forest
 - (B) It lives in a forest and eats seeds
 - (C) It eats seeds and is eaten by a weasel
 - (D) It lives in a forest and eats seeds and is eaten by a weasel
12. In an Asian rice paddy, carp eat decaying material from around the base of rice plants while a snail scrapes algae from the leaves, stems, and roots of the same plant. They can survive at the same time in the same rice paddy because they occupy
- (A) the same habitat but different niches.
 - (B) the same habitat and the same niche.
 - (C) the same niche but different habitats.
 - (D) different habitats and different niches
13. Which statement is true?
- (A) Two or more species may share the same niche.
 - (B) Only one species may occupy the same habitat.
 - (C) Exotic species are generally harmless.
 - (D) Each niche is normally filled by only one species.
14. What happens when different kinds of trees need the same space?
- (A) symbiosis
 - (B) competition
 - (C) commensalism
 - (D) parasitism
15. Which example best illustrates interspecific competition?
- (A) Two lions compete for the same zebra.
 - (B) Puffins and sea gulls normally find different nesting sites.
 - (C) Vultures generally feed on a variety of dead organisms.
 - (D) Tadpoles and adult frogs eat different types of food.
16. Interspecific competition _____.
- (A) occurs between members of a population
 - (B) occurs all the time
 - (C) occurs when members of different species compete for limited resources
 - (D) all of the above
17. One type of competition involves individuals competing for resources. The other involves competition between different
- (A) schools.
 - (B) populations.
 - (C) environments.
 - (D) relationships.
18. Two members of the same species fight over who gets a certain food. This is an example of
- (A) community.
 - (B) competition.
 - (C) mutualism.
 - (D) commensalism

19. Two lionesses are fighting over a fresh kill. What type of competition is this?
- (A) competition between predator and prey
 - (B) competition within a population
 - (C) competition between species in a community
 - (D) competition between parasite and host
20. What term refers to a non-native species that is introduced into a foreign ecosystem?
- (A) alien species
 - (B) pest organism
 - (C) exotic species
 - (D) competing species
21. Two unrelated species of organisms (species A and B) occupy different ecological niches. What will most likely happen when these species move into the same habitat?
- (A) A new species will be produced as a result of mating between the A and B.
 - (B) Both species will coexist with no competition between them.
 - (C) Each species will exist in separate halves of the habitat.
 - (D) Fierce competition will develop resulting in the elimination of one species.
22. Which term describes the competition between two killer whales for seals as food?
- (A) Interspecific
 - (B) Specific
 - (C) Non-specific
 - (D) Intraspecific