

Basic Course in Ornithology

Week 7 final Assignment

- 1) The following lead to negative changes in the local population size
 - a) Births and deaths
 - b) Immigration and births
 - c) Immigration and deaths
 - d) **Deaths and emigration**

- 2) The following is not included in the definition of a population
 - a) Geographic closure
 - b) Temporal closure
 - c) **Interspecific interactions**
 - d) Interbreeding individuals

- 3) A stable population is defined by
 - a) $r=1$
 - b) **$r=0$**
 - c) $\lambda=0$
 - d) $r=1$

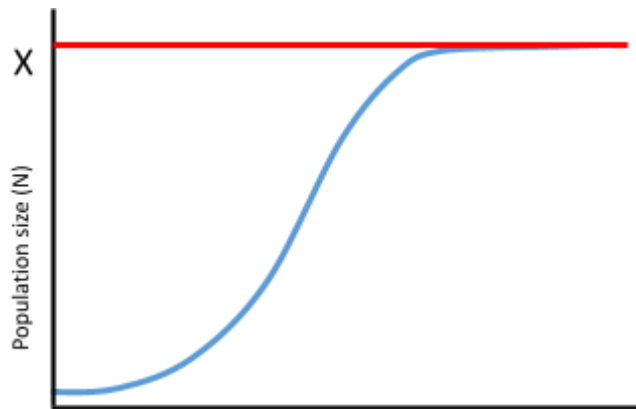
- 4) Recruitment is a vital rate just like
 - a) Occupancy
 - b) Abundance
 - c) Density
 - d) **Survival**

- 5) A life table can be used to derive the following information
 - a) Net reproductive rate
 - b) Age-specific Survivorship
 - c) Generation length
 - d) **All the above**

- 6) An example of exponential population growth is
 - a) Great Indian Bustard
 - b) Migratory waterbirds
 - c) Raptors
 - d) **Whooping cranes**

- 7) The X-axis and the red line in the following plot depicting logistic growth represent, respectively:
 - a) Time and growth rate
 - b) Time and environmental resistance

- c) Time and logarithmic phase
- d) **Time and carrying capacity**



- 8) A tropical storm uprooted many trees, making nesting trees a scarce resource for Hornbills. This is an example of
- (a) r-selection
 - (b) Density-independent population regulation
 - (c) **Density-dependent population regulation**
 - (d) None of the above
- 9) During logistic population growth the following increases with increase in population size
- a) **Environmental resistance**
 - b) Growth rate
 - c) Carrying capacity
 - d) All of the above
- 10) Clumped distribution may occur due to
- (a) Heterogeneous distribution of resources
 - (b) Mating or social behavior
 - (c) Inability to disperse far from parents
 - (d) **All of the above**
- 11) A set of species that are found in the same place and at the same time, and actually or potentially interact is called a/an:
- a) Assemblage
 - b) **Community**
 - c) Guild
 - d) Trophic level
- 12) "Omnivore" is an example of a/an

- a) ecological community.
- b) community structure.
- c) guild.**
- d) none of the above.

13) The overall abiotic space occupied by a species in the absence of interactions with other species is called:

- a) Fundamental niche**
- b) Niche overlap
- c) Realised niche
- d) Trophic level

14) Which of the following is an interaction between two species in which one species benefits while the other species loses fitness?

- a) Competition
- b) Facilitation
- c) Amensalism
- d) Parasitism**

15) In a forest, hawks eat robins which eat worms. Because of an epidemic, the hawk population was wiped out. This caused the robin population to increase, which in turn led to the worm population declining. Such a phenomenon is an example of a/an:

- a) Bottom-up effect
- b) Competitive exclusion
- c) Trophic cascade**
- d) Facilitation

16) "Exploitation", "interference" and "apparent" are all forms of:

- a) Amensalism
- b) Competition**
- c) Symbiosis
- d) Predation

17) On an island, two potentially competing bird species each feed on 10 species of caterpillars but with no overlap in the caterpillar species that the two bird species eat. On another island, the same 20 species of caterpillars occur, but one of the competing bird species is absent. The other bird species on this island feeds on 14 species of caterpillars. This pattern can be explained by

- a) ecological release.**
- b) density inflation.
- c) character displacement.
- d) trait overlap.

18) On a mountain, two very closely related species (A and B) are found between 1000 to 2000m above sea level (species A), and between 1500 to 2500m above sea level (species B). The shape and size of the bills of species A below 1500m and that of species B above 2000 are very similar. However, where both species A and B co-occur (i.e., between 1500 and 2000m), the shapes and sizes of the bills of the two species are very different. This can occur because of:

- a) Competitive exclusion
- b) Character displacement**
- c) Ecological release
- d) Intraguild predation

19) Species that provide other species with early warning about the presence of a predator are called:

- a) Keystone species
- b) Nuclear species
- c) Flagship species
- d) Sentinel species**

20) A bird species found in Rajasthan, Himachal Pradesh, Jharkhand and Kerala is likely to be which one of the following?

- a) Habitat generalist**
- b) Habitat specialist
- c) Microclimate specialist
- d) Forest dependent