

EEB 2208 (Introduction to Conservation Biology)

Sample Test Questions: Lectures 10-13

Before attempting to answer these questions, make sure you read the document titled “Exam Format Information”, which is posted on the web site under “Important course documents”. That document explains how to answer questions on my exams.

For the following sets of questions identify all answers that are correct. Each numbered item is worth 1 point.

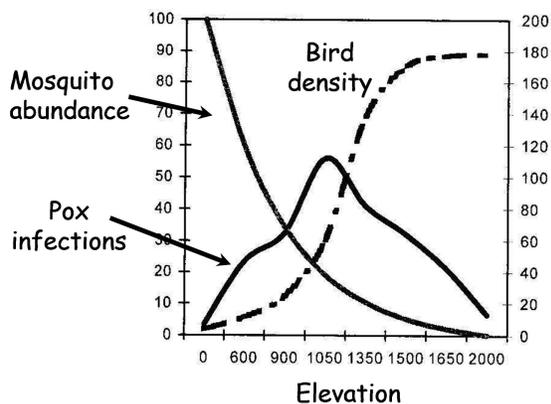
Climate change has been predicted to cause many changes in the future. For which of the following things, is there already good evidence?

1. Growing season lengths have declined.
2. Net primary production by plants in the Amazon Basin has declined.
3. Sea-levels are rising faster than IPCC reports have predicted.
4. Arctic permafrost is spreading.
5. Many species have shifted their geographic ranges to the north.

One of the best studies to examine the characteristics of successful invading species involved birds introduced to New Zealand. In this study, what were the best predictors of invasion success?

6. The number of individuals released.
7. Reproductive rates.
8. The number of potential competitors.
9. Life spans.
10. The number of introduction attempts.

The figure below describes factors relating to the incidence of avian pox in Hawaii, where it is an introduced disease that is transmitted to birds by mosquitoes. Which of the following statements about the figure are true?



11. This figure shows that birds are uncommon in the lowlands.
12. This figure shows that birds can effectively control introduced mosquito populations.
13. This figure suggests that pox infections are highest where the mosquito vector is most common.
14. This figure shows that pox infections are more common than mosquitoes at mid-elevations.
15. This figure suggests that high elevations provide a refuge where birds are safe from disease.

Which of the following statements about global change are accurate?

16. In parts of the world over 75% of river water is already allocated to human use.
17. Atmospheric carbon dioxide concentrations are at their lowest point in 400,000 years.
18. Global precipitation is likely to increase, and areas suffering water stress are expected to grow.
19. Per capita food production has steadily decreased over the past few decades.
20. Increased air-travel by humans is likely to increase the spread of disease organisms.

Which of these conservation actions would be considered representative of the declining population paradigm?

21. Translocating endangered northern quolls to an island where they will be safe from invasive species that threaten them.
22. Reducing the spread of invasive species.
23. Developing a land protection strategy that helps to keep common species common.
24. Captive breeding California condors.
25. Implementing sustainable harvest management for waterfowl.

Why is it difficult to use observational field studies to determine the MVP for a species?

26. Because it is impossible to estimate the amount of environmental stochasticity.
27. Because it typically takes a long time.
28. Because estimating MVP requires that you track multiple populations.
29. Because the data are difficult, or impossible, to gather.
30. Because many people view it as unethical to let a population decline without doing something.

31. Describe three broad categories of ecosystem service, as described by the Millenium Ecosystem Assessment, and give an example of each. (6 points)

32. Give a specific example of each of the following things. (3 points)

Invasive species:

Greenhouse gas:

Biological control:

33. In what ways do the small and declining population paradigms differ? (5 points)