

Answer the following questions based on the article: The Science of Biodiversity

1. What is biodiversity?
  
2. How is biodiversity measured?
  
3. Approximately how many species of organisms have been described?
4. How many are mammals?
5. How many are birds?
6. How many are insects?
7. Are the majority of species discovered or undiscovered?
8. What part of the world contains the greatest biodiversity?
9. Why are so many species vulnerable to extinction?
  
10. What notable type of creature went extinct 65 million years ago?
  
11. The end-permian extinction resulted in the loss of 90% of marine (ocean) life and 70% of terrestrial (land) life. How long ago was this?
  
12. There have been 5 major extinction events in the past. What evidence do we have that we are in the middle of a 6<sup>th</sup> major extinction event?
  
13. What is the most common reason (in general) for biodiversity loss?  
Give three specific examples:
  - A.
  - B.
  - C.
  
14. What is a habitat island and why do these increase the chance of extinction of species (certain birds, for example)?

15. Name 5 ways in which humans benefit from biodiversity:

A.

B.

C.

D.

E.

16. Give one example of a medically important drug isolated from a plant. What condition is it used to treat? In what plant was it discovered?

17. What percent of known plant species have been examined for medical usefulness? What will happen if the others go extinct before they can be examined?

18. Why is genetic diversity important within individual species?

19. What is an "ecosystem service"? Give one example.

20. Why is it important to preserve endangered ecosystems?