**Biodiversity in Crisis Study Guide**

* To be filled out while you view the lecture and read the assigned text

1. Conservation biology is that specific area of biology that is concerned with understanding and preserving the richness of all life forms and how inter-relationships between organisms and their environment affect the biosphere. What is the definition of biodiversity?
2. There are three levels of concern for conservation biologists. For each level, give a brief explanation, in your own words, and provide an example of why this level is worthy of your attention.
   1. Species Diversity
   2. Genetic diversity:
   3. Ecosystem diversity:
3. There are two types of ecosystem services. Which one is the easiest to quantify?
4. What are some of the challenges in quantifying indirect services provided by ecosystems?
5. After examining the graphic depicting the 5 mass extinction events in the lecture slides, which of them do you think is the one that brought an end to dinosaurs?
6. What is some of the evidence that suggests we are currently experiencing mass extinction event #6?
7. What is the difference between a threatened species and an endangered species?
8. Of the three main categories of threat classifications, which do you think would be most likely for biologist to take a hands-off approach to conservation?
9. Go to the website linked on slide 8 of the lecture and calculate your carbon footprint. Are you alarmed at the size? Take some time to play around and evaluate a few ways you could potentially lower your carbon footprint in simple every day choices.
10. Explain how habitat fragmentation is caused by human involvement.
11. How can introduced plants affect native species? (You might need to do some independent research on exotic species mentioned in lecture!)
12. Translate what is meant by the term “overharvesting”.
13. Give three examples of when humans have overharvested valuable animal species.
14. How is poaching different from over harvesting?
15. Exotic species introduction can include different categories. Provide examples for each of the categories below:
    1. Exotic predators
    2. Intentionally introduced exotics
    3. Exotic pathogens
16. What are the four goals of conservation biology?
17. In truth, a species becomes endangered not just by one factor, but many. Give an example based on your own research or prior knowledge to support this statement.

**Terms to master from the text:**

(These may show on exams or in associated labs and activities for this section)

Ecosystem services

Biodiversity

Endangered species

Threatened species

Species of concern

Indicator species

Hot spots

Exotic species

Habitat fragmentation

Poaching

Overharvesting

Mass extinctions

Conservation biology

Ecological footprint