

Name: _____ Date: _____ Block: _____

Miller and Spoolman's Living in the Environment 16th ed.

Chapter 9 Reading Guide – Sustaining Biodiversity: The Species Approach

Case Study – The Passenger Pigeon: Gone Forever

1. Explain how the passenger pigeon went extinction as a species.
2. How is this related to what many biologists call a sixth great extinction?

Section 9-1 – What Role Do Humans Play in the Premature Extinction of Species?

3. What is the human effect on global biodiversity?
4. Why are these effects increasing?
5. Differentiate between background extinction and the current mass extinction.
6. Why do scientists think a 1% estimate for extinction rates may be conservative?
7. Differentiate between endangered species and threatened species.

Section 9-2 – Why Should We Care about Preventing Premature Species Extinction?

8. Describe the instrumental value and intrinsic/existence value arguments used for preserving species.
9. How is DNA being used to reduce illegal killing of elephants?
10. Explain why bats are important members of ecosystems,.
11. Why are bats endangered?

Section 9-3 – How Do Humans Accelerate Species Extinction?

12. Explain what the acronym HIPPCO is used for, and describe each of its pieces.
13. How are birds used as environmental indicators? What are scientists learning from them?
14. How could kudzu potentially save trees from loggers?
15. Describe how invasive species can be damaging to an ecosystem.
16. What has caused the decline in honeybee populations?

17. List and describe two examples of how illegal killing, capturing, and selling of wild species threatens biodiversity.

Section 9-4 – How Can We Protect Wild Species from Extinction Resulting from Our Activities?

18. List and describe the ways we can protect wild species from extinctions.
19. Describe the accomplishments of the Endangered Species Act.
20. Explain the precautionary principle using an example in environmental science and one in your daily life.

List any questions you have after reading this chapter.