

Conservation Biology and Biodiversity Threats

Ecology · Answer Key · 21 Questions

1. What is the primary driver of habitat loss for many species, according to the text?

- A) Natural disasters
- B) Increased human population and resource use**
- C) Volcanic activity
- D) Asteroid impacts

2. Which organization compiles the Red List of Threatened Species?

- A) World Wildlife Fund (WWF)
- B) United Nations Environment Programme (UNEP)
- C) International Union for Conservation of Nature and Natural Resources (IUCN)**
- D) National Geographic Society

3. Conservation biology requires expertise from disciplines such as population biology, genetics, and:

- A) Astronomy
- B) Geology
- C) Pathology**
- D) Meteorology

4. Which of the following is NOT listed as a discipline outside biology contributing to conservation biology?

- A) Law
- B) Economics
- C) Philosophy**
- D) Sociology

5. Conservation biology is defined as the scientific study of the amount of biodiversity, how human activities impact it, and how best to:

- A) Increase human resource use
- B) Maintain it and prevent its loss**
- C) Accelerate species extinction
- D) Develop new industrial processes

6. Which of these is an example of an ecosystem service that humans depend on biodiversity for?

- A) Urban development
- B) Pollination of crops**
- C) Industrial manufacturing
- D) Space exploration

7. Who is considered the 'father of biogeography' and foresaw the current biodiversity crisis in the 19th century?

- A) Charles Darwin
- B) Alfred Russel Wallace**
- C) Gregor Mendel
- D) Linnaeus

8. Conservation biology emerged as a scientific discipline in the early:

- A) 1880s
- B) 1980s**
- C) 1950s
- D) 2000s

9. The Society for Conservation Biology was founded in response to the biodiversity crisis in what year?

- A) 1955
- B) 1975
- C) 1985**
- D) 2005

10. Conservation biology is often described as 'mission-driven' and:

- A) Profit-oriented
- B) Leisurely paced
- C) Crisis-oriented**
- D) Purely theoretical

11. Tropical biologist Dan Janzen emphasized that if biologists want a tropics in which to biologize, they must:

- A) Observe from a distance
- B) Buy it with care, energy, effort, strategy, tactics, time, and cash**
- C) Focus solely on laboratory research
- D) Avoid interaction with local communities

12. Alwyn Gentry, a tropical botanist, became an eyewitness to plant species extinctions due to:

- A) Climate change
- B) Volcanic eruptions
- C) Rapid deforestation**
- D) Introduction of invasive plants

13. In the US, a rising outcry over conservation issues included the poaching-driven decline of:

- A) Deer
- B) Bisons**
- C) Rabbits
- D) Squirrels

14. Which Philippine endemic species is mentioned as experiencing habitat loss?

- A) Philippine Tarsier**
- B) Philippine Forest Turtle
- C) Palawan Pangolin
- D) Rufous Hornbill

15. Estimates of extinction rates from the fossil record are used to establish:

- A) Future extinction predictions
- B) Background extinction rates**
- C) Current population sizes
- D) Genetic diversity levels

16. The background extinction rate is estimated to be on the order of 1 extinction every:

- A) 10 years
- B) 100 years
- C) 200 years**
- D) 1000 years

17. The extinction rate in the 20th century was estimated to be how many times higher than the background rate?

- A) 10 to 50 times
- B) 50 to 100 times
- C) 100 to 1,000 times**
- D) 1,000 to 10,000 times

18. An advantage of using background extinction rates is that it:

- A) Is specific to modern environmental conditions
- B) Provides a baseline for comparison**
- C) Is always a precise estimate
- D) Only reflects human-caused extinctions

19. A disadvantage of background extinction rates is that they are a:

- A) Very precise estimate
- B) Very rough estimate**
- C) Direct measure of current threats
- D) Specific to modern ecological contexts

20. The Species-Area Relationship (SAR) is used to estimate the number of species driven to extinction by:

- A) Climate change
- B) Habitat loss**
- C) Pollution
- D) Disease outbreaks

21. In the Species-Area Relationship formula ($S = cA^z$), what does 'z' represent?

- A) The number of species
- B) The area of habitat
- C) A constant
- D) The slope**