

Advanced Ecology: Dates, Names, and Numbers

Ecology · Answer Key · 10 Questions

1. In what year did Robert MacArthur and E.O. Wilson publish their seminal work, 'The Theory of Island Biogeography,'?

- A) 1958
- B) 1963
- C) 1967**
- D) 1975

2. What was the estimated atmospheric CO₂ concentration in parts per million (ppm) at the beginning of the Industrial Revolution (circa 1750)?

- A) 280 ppm**
- B) 320 ppm
- C) 360 ppm
- D) 400 ppm

3. The 'Tragedy of the Commons' concept, describing the depletion of shared resources, was popularized by Garrett Hardin in an article published in which journal in 1968?

- A) Nature
- B) Science**
- C) The American Economic Review
- D) The Journal of Ecology

4. Alfred Lotka published his foundational work on predator-prey dynamics, the 'Lotka-Volterra equations,' in what year?

- A) 1909
- B) 1920
- C) 1925**
- D) 1930

5. The concept of 'ecological niche' was first rigorously defined by G. Evelyn Hutchinson in a paper published in what year?

- A) 1940
- B) 1957**
- C) 1965
- D) 1972

6. Rachel Carson's 'Silent Spring,' which brought widespread attention to the environmental impact of pesticides like DDT, was published in what year?

- A) 1952
- B) 1958
- C) 1962**
- D) 1968

7. What is the approximate average global primary productivity (in grams of carbon per square meter per year) for terrestrial ecosystems?

- A) 100
- B) 250**
- C) 500
- D) 1000

8. The first Earth Day, a global celebration of environmental awareness, was held on April 22nd of which year?

- A) 1968
- B) 1970**
- C) 1972
- D) 1975

9. Eugene Odum, a pioneer in ecosystem ecology, published the first edition of his influential textbook 'Fundamentals of Ecology' in collaboration with Howard Odum in what year?

- A) 1948**
- B) 1953
- C) 1959
- D) 1964

10. According to the Intergovernmental Panel on Climate Change (IPCC) AR6 report (2021-2023), the estimated average global surface temperature increase from pre-industrial levels (1850-1900) to 2010-2019 was approximately how many degrees Celsius?

- A) 0.5
- B) 0.8
- C) 1.1**
- D) 1.5