

## Ecology Trivia: Questions, Answers, and Facts

### Printable Trivia Pack

Ecology trivia highlights the science of relationships in nature, from food webs and habitats to biodiversity and climate. Rooted in a field shaped by 19th-century natural history and modern environmental research, it offers a family-friendly mix of easy, funny, and more challenging facts that make ecosystems easier to understand.

#### HARD ECOLOGY TRIVIA

1. After a population crashes to very low numbers, what specific process can sharply cut its genetic diversity even if the population later rebounds?

Answer: population bottleneck

2. Which conservation feature is designed to reconnect separated habitat patches so organisms can move between them more easily?

Answer: wildlife corridor

3. What principle says that two species cannot indefinitely occupy exactly the same niche?

Answer: competitive exclusion

4. When similar species avoid direct conflict by using different foods, places, or times, what process is at work?

Answer: resource partitioning

5. What term is used for organisms that physically reshape habitats in ways that affect many other species?

Answer: ecosystem engineer

6. Which management practice can unintentionally increase fuel buildup and make later wildfires more severe?

Answer: fire suppression

7. What lake or ocean process can prevent warm surface water from mixing freely with colder deep water?

Answer: thermal stratification

8. Carbon stored in mangroves, seagrasses, and salt marshes is known by what term?

Answer: blue carbon

9. In what city was the 1972 United Nations Conference on the Human Environment held?

Answer: Stockholm

10. True or false: a wildlife corridor mainly works by increasing fuel buildup in landscapes.?

Answer: False

11. If two species are described as sharing exactly the same niche forever, which named principle does that claim directly violate?

Answer: competitive exclusion

12. A coexistence story hinges on one species feeding at a different time while another uses a different place. What ecological mechanism best fits that setup?

Answer: resource partitioning

13. Which concept is being described in this playful clue: 'The crowd vanished, the survivors stayed, and the gene pool got way less interesting'?

Answer: population bottleneck

14. What is the precise term for carbon storage associated with coastal systems like mangroves rather than upland forests?

Answer: blue carbon

### FUNNY ECOLOGY TRIVIA

1. Which soggy ecosystem is basically nature's giant carbon savings account, storing large amounts of carbon in waterlogged soils?

Answer: Peatlands store large amounts of carbon in waterlogged soils.

2. What is the term for tracking the timing of seasonal biological events like flowering or migration, aka nature's calendar with no app notifications?

Answer: Phenology is the tracking of seasonal biological events such as flowering or migration.

3. As climates warm, species often pack their metaphorical bags and move in what general direction?

Answer: They often shift poleward or upslope.

4. Rewilding is usually trying to restore what: just a headcount of species, or broader ecological processes?

Answer: Broader ecological processes.

5. What tool lets scientists detect species presence from genetic traces left behind in water, soil, or even air, like ecological fingerprints with zero detective hat required?

Answer: Environmental DNA can reveal species presence from genetic material left in water, soil, or air.

6. Gross primary productivity measures what total rate in ecosystems?

Answer: The total rate at which primary producers capture energy by photosynthesis.

7. Which process sends nitrogen back to the atmosphere by converting nitrate into gaseous forms—basically the exit door for nitrogen?

Answer: Denitrification returns nitrogen to the atmosphere by converting nitrate into gaseous forms.

8. What is it called when a population temporarily grows beyond what its environment can support, like too many guests and not enough snacks?

Answer: Overshoot occurs when a population temporarily exceeds the environment's carrying

capacity.

9. True or false: Peatlands are notable because waterlogged soils there can store large amounts of carbon.?

Answer: True

10. If a scientist is noting when flowers bloom and birds migrate each year, what are they studying?

Answer: Phenology.

11. In warming climates, species range shifts often go which way: poleward or upslope, poleward or downslope, or randomly zigzagging?

Answer: Poleward or upslope.

12. Which idea is more central to rewilding: restoring ecological processes or merely boosting a species tally like a scoreboard?

Answer: Restoring ecological processes.

13. What can reveal a species was around even if it left only genetic crumbs in water, soil, or air?

Answer: Environmental DNA.

#### FUN ECOLOGY TRIVIA

1. When aquatic life starts gasping because dissolved oxygen falls unusually low, what condition is being described?

Answer: Hypoxia

2. What ocean process acts like a nutrient elevator, bringing deep, nutrient-rich water toward the surface?

Answer: Upwelling

3. Seawater soaking up atmospheric carbon dioxide mainly drives what large-scale ocean change?

Answer: Ocean acidification

4. When heat stress breaks up the partnership between corals and their symbiotic algae, what often happens?

Answer: Coral bleaching

5. In fishing, what's the term for the accidental capture of species that fishers were not trying to catch?

Answer: Bycatch

6. Which process turns atmospheric nitrogen into biologically available compounds that organisms can use?

Answer: Nitrogen fixation

7. A raindrop lands on a hillside and every trickle from that area heads to the same outlet.

What is that land area called?

Answer: A watershed

8. In ecology, what term describes a species's role in its environment?

Answer: Ecological niche

9. What field is all about protecting species, habitats, and ecosystems?

Answer: Conservation biology

10. Which term fits a species that can strongly shape an ecosystem even when it isn't very abundant?

Answer: Keystone species

11. If a change at one feeding level sends ripple effects through other levels, ecologists call that a what?

Answer: Trophic cascade

12. Who are the ecosystem chefs making organic matter mainly through photosynthesis?

Answer: Primary producers

13. Which U.S. wilderness preservation advocate is the famous name here: John Muir or James Lovelock?

Answer: John Muir

#### ECOLOGY FAMILY TRIVIA

1. What is the science that studies how living things interact with each other and with their surroundings?

Answer: Ecology

2. What word means the variety of life in one area, from common species to rare ones?

Answer: Biodiversity

3. A pond includes fish, plants, water, rocks, and sunlight interacting together. What is that whole setup called?

Answer: An ecosystem

4. Instead of showing just one 'who-eats-whom' path, what do scientists call a network of many feeding links in nature?

Answer: A food web

5. Nature's cleanup crew breaks down dead plants and animals and returns nutrients to the environment. What are these organisms called?

Answer: Decomposers

6. Which 1962 book by Rachel Carson became a landmark in environmental awareness?

Answer: Silent Spring

7. Aldo Leopold wrote which well-known environmental book?

Answer: A Sand County Almanac

8. In what year was the very first Earth Day held?

Answer: 1970

9. Which international agreement on wildlife trade was opened for signature in 1973?

Answer: CITES

10. The Brundtland Report is also known by what title?

Answer: Our Common Future

11. Which major 1992 meeting on environment and development took place in Rio de Janeiro?

Answer: The Earth Summit

12. What climate agreement was adopted in 1997?

Answer: The Kyoto Protocol

### EASY ECOLOGY TRIVIA

1. What is the term for the population size an environment can sustain over the long term?

Answer: Carrying capacity

2. Which kind of succession begins in a place with no soil, such as newly exposed rock?

Answer: Primary succession

3. True or false: Secondary succession usually moves faster than primary succession because soil remains.?

Answer: True

4. After a major disturbance, ecological succession often starts with what kind of colonizers?

Answer: Hardy colonizers

5. In commensalism, one species benefits while what happens to the other?

Answer: It is not clearly helped or harmed

6. What term describes an ecosystem's ability to recover after disturbance?

Answer: Ecological resilience

7. What is the name for heavy algal growth in water caused by excess nutrients?

Answer: Eutrophication

8. An invasive species can spread rapidly when natural enemies are what?

Answer: Scarce

9. Which researcher is famous for long-term studies of chimpanzees at Gombe?

Answer: Jane Goodall

10. Who studied mountain gorillas in Rwanda?

Answer: Dian Fossey

11. Which marine biologist is especially known for advocating for ocean conservation?

Answer: Sylvia Earle

12. What movement was founded in Kenya by Wangari Maathai?

Answer: The Green Belt Movement

13. Which climate advocacy group was founded by Bill McKibben?

Answer: 350.org

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