

# Advanced Environmental Science: Fauna and Flora Facts

Environmental Science · Answer Key · 15 Questions

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**1. Which marine mammal possesses the largest brain by mass, relative to its body size, among all animals?**

- A) Sperm Whale
- B) Orca (Killer Whale)
- C) Bottlenose Dolphin**
- D) Fin Whale

**2. The Great Barrier Reef, the world's largest coral reef system, is primarily composed of which class of marine invertebrate?**

- A) Mollusca
- B) Cnidaria**
- C) Echinodermata
- D) Crustacea

**3. What is the primary chemical compound that gives the Amazon rainforest its distinctive, earthy smell, particularly after rain?**

- A) Isoprene
- B) Volatile Organic Compounds (VOCs)
- C) Geosmin**
- D) Methane

**4. Which plant species is known for its ability to fix atmospheric nitrogen into the soil through a symbiotic relationship with Rhizobium bacteria in its root nodules?**

- A) Maize (Zea mays)
- B) Wheat (Triticum aestivum)
- C) Soybean (Glycine max)**
- D) Rice (Oryza sativa)

**5. The phenomenon of 'bioluminescent bays' is primarily caused by the presence of which type of microorganism?**

- A) Cyanobacteria
- B) Dinoflagellates**
- C) Diatoms
- D) Phytoplankton

**6. What is the approximate percentage of Earth's total water that is freshwater, readily available for human consumption?**

- A) 71%
- B) 2.5%**
- C) 10%
- D) 0.5%

**7. Which terrestrial ecosystem is characterized by permafrost, low precipitation, and extremely cold temperatures, supporting mosses, lichens, and dwarf shrubs?**

- A) Temperate Rainforest
- B) Savanna
- C) Taiga (Boreal Forest)
- D) Tundra**

**8. The largest single-celled organism known is a species of slime mold called?**

- A) Amoeba proteus
- B) Physarum polycephalum**
- C) Paramecium caudatum
- D) Euglena gracilis

**9. Which bird species has the longest known migratory journey, traveling from the Arctic to the Antarctic and back annually?**

- A) Arctic Tern**
- B) Wandering Albatross
- C) Bar-tailed Godwit
- D) Sooty Shearwater

**10. The process by which plants absorb carbon dioxide from the atmosphere and convert it into organic compounds is called?**

- A) Respiration
- B) Transpiration
- C) Photosynthesis**
- D) Evaporation

**11. What is the scientific term for the symbiotic relationship between fungi and plant roots, crucial for nutrient uptake?**

- A) Lichens
- B) Mycorrhizae**
- C) Endophytes
- D) Rhizosphere

**12. Which of the following is the most abundant greenhouse gas in Earth's atmosphere, excluding water vapor?**

- A) Methane (CH<sub>4</sub>)
- B) Nitrous Oxide (N<sub>2</sub>O)
- C) Carbon Dioxide (CO<sub>2</sub>)**
- D) Ozone (O<sub>3</sub>)

**13. The 'Ring of Fire' is a major area in the basin of the Pacific Ocean where a large number of earthquakes and volcanic eruptions occur. This geological activity is primarily due to which process?**

- A) Continental drift
- B) Plate tectonics**
- C) Earth's magnetic field fluctuations
- D) Ocean currents

**14. What is the specific term for the collective biomass of all organisms living in a particular habitat or region?**

- A) Biome
- B) Habitat
- C) Ecosystem
- D) Biota**

**15. The process of biomagnification describes the increasing concentration of a substance, such as a toxic chemical, in organisms at successively higher levels in a food chain. Which class of chemicals is most notoriously known for this effect?**

- A) Nitrates
- B) Phosphates
- C) Persistent Organic Pollutants (POPs)**
- D) Heavy Metals