

# Marine Biology Milestones

Marine Biology · Answer Key · 20 Questions

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**1. Who is often credited with the first comprehensive study of marine life and oceanography, leading expeditions on HMS Challenger?**

- A) Charles Darwin
- B) Jacques Cousteau
- C) Sir John Murray**
- D) Rachel Carson

**2. What was the primary purpose of the groundbreaking HMS Challenger expedition (1872-1876)?**

- A) To map the Pacific Ocean floor
- B) To study the biodiversity of the world's oceans**
- C) To discover new trade routes
- D) To test early submarine technology

**3. What invention, pioneered by Jacques Cousteau and Émile Gagnan, revolutionized underwater exploration by allowing humans to breathe freely beneath the surface?**

- A) Submarine
- B) Snorkel
- C) SCUBA (Self-Contained Underwater Breathing Apparatus)**
- D) Sonar

**4. Which famous naturalist developed the theory of evolution by natural selection, heavily influenced by his observations of marine life during the voyage of the HMS Beagle?**

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

**5. What significant discovery did Marie Tharp make regarding the ocean floor?**

- A) The existence of coral reefs
- B) The Mariana Trench
- C) The Mid-Atlantic Ridge**
- D) The Great Barrier Reef

**6. The first major research institute dedicated solely to marine biology was established where?**

- A) Scripps Institution of Oceanography (USA)
- B) Woods Hole Oceanographic Institution (USA)
- C) Plymouth Marine Laboratory (UK)**
- D) Oceanographic Museum of Monaco

**7. What key invention by Sylvia Earle facilitated her extensive underwater research and exploration?**

- A) The deep-sea submersible
- B) The first underwater camera
- C) The JIM suit (atmospheric diving suit)**
- D) The remote operated vehicle (ROV)

**8. Who authored 'Silent Spring,' a seminal work that highlighted the dangers of pesticides to marine ecosystems and sparked the modern environmental movement?**

- A) Jacques Cousteau
- B) Rachel Carson**
- C) Jane Goodall
- D) Charles Darwin

**9. The discovery of hydrothermal vents in the 1970s revealed ecosystems that were previously thought impossible, relying on what unique energy source?**

- A) Sunlight
- B) Photosynthesis
- C) Chemosynthesis**
- D) Geothermal heat

**10. What early marine science tool, developed in the 17th century, allowed for the first accurate measurements of ocean depth?**

- A) Echo sounder
- B) Plumb line**
- C) Nautical almanac
- D) Secchi disk

**11. Which early marine biologist is known for his extensive studies of jellyfish and coelenterates, pioneering methods for their preservation?**

- A) Sir David Attenborough
- B) Louis Agassiz**
- C) Charles Darwin
- D) Jacques Cousteau

**12. The invention of the bathyscaphe, a type of submersible, enabled the first human descents into the deepest parts of the ocean. Who designed it?**

- A) Jacques Cousteau
- B) Auguste Piccard**
- C) Robert Ballard
- D) James Cameron

**13. What significant discovery was made by Robert Ballard in 1977 using deep-sea submersibles?**

- A) The Titanic wreck
- B) Hydrothermal vents and their unique life forms**
- C) The Mid-Atlantic Ridge
- D) Ancient underwater cities

**14. The development of the 'Secchi disk' in the late 19th century was a simple yet effective invention for measuring what property of water?**

- A) Salinity
- B) Temperature
- C) Turbidity (clarity)**
- D) pH

**15. Who was the first person to make a solo, untethered dive to the deepest point of the ocean, the Challenger Deep, in a vessel called the Trieste?**

- A) Jacques Cousteau
- B) Don Walsh**
- C) James Cameron
- D) Sylvia Earle

**16. The invention of the aqualung, a precursor to modern SCUBA, was a collaborative effort. Who was its co-inventor alongside Jacques Cousteau?**

- A) Émile Gagnan**
- B) Hans Hass
- C) Oskar Simonyi
- D) Auguste Piccard

**17. What major contribution to understanding ocean currents was made by scientists using drift bottles and early tracking methods?**

- A) Identification of deep-sea trenches
- B) Mapping of surface and subsurface currents**
- C) Discovery of underwater volcanoes
- D) Measurement of tidal forces

**18. The discovery of bioluminescence in marine organisms allowed scientists to understand light production within the ocean. Who conducted early systematic studies on this phenomenon?**

- A) Aristotle
- B) William Beebe**
- C) Charles Darwin
- D) Jacques Cousteau

**19. What was the primary function of the 'Nansen bottle,' invented by Fridtjof Nansen?**

- A) To measure ocean currents
- B) To collect water samples at specific depths**
- C) To record water temperature
- D) To detect underwater seismic activity

**20. The establishment of the first marine protected areas in the early 20th century aimed to achieve what primary goal?**

- A) Increase commercial fishing yields
- B) Conserve marine biodiversity**
- C) Facilitate tourism
- D) Study geological formations