

Oceanic Wonders & AI: Unveiling Pacific Discoveries and Climate Tech

Ocean Science · Answer Key · 15 Questions

1. A recent deep-sea expedition in the Southeast Pacific discovered a new underwater mountain and potentially over 100 new species. Which of these rare creatures was documented during this expedition?

- A) The Vampire Squid
- B) The Blobfish
- C) The 'Flying Spaghetti Monster' (BathypHYSA conifera)**
- D) The Anglerfish

2. Artificial intelligence is revolutionizing conservation efforts in the Pacific. What specific application of AI is being used to help protect endangered marine species in the Pacific?

- A) Predicting whale migration patterns to prevent ship collisions
- B) Estimating locations of endangered species to help commercial fishers avoid them**
- C) Identifying illegal fishing vessels using satellite imagery
- D) Mapping coral reef health for tourism management

3. Recent discoveries in the Clarion-Clipperton Zone of the Pacific Ocean have revealed a significant number of new species. How many new species of amphipods were described from this region in a March 2026 publication?

- A) 10
- B) 15
- C) 24**
- D) 30

4. Climate change poses a significant threat to Pacific Island nations. According to NASA's analysis, how much sea level rise can nations like Kiribati and Tuvalu expect by the 2050s in terms of high-tide flooding days per year?

- A) A 10% increase
- B) An order of magnitude increase (e.g., from <5 to ~50 days)**
- C) A decrease due to changing ocean currents
- D) Approximately 5 additional days per year

5. A CSIRO-led voyage in 2022 off the coast of Western Australia led to the discovery of new deep-sea species. Which of the following was among these discoveries?

- A) A new species of giant squid
- B) The West Australian Lanternshark**
- C) A bioluminescent octopus
- D) A deep-sea whale fossil

6. The 'Digital Earth Pacific' initiative is leveraging AI to understand environmental changes in the Pacific. What kind of data does it primarily process to achieve this?

A) Social media trends

B) Satellite imagery

C) Historical documents

D) Audio recordings of wildlife

7. Researchers are exploring innovative ways to restore coral reefs in Australia. What new technology is being trialed on the Great Barrier Reef to aid in large-scale coral restoration?

A) Underwater 3D printing of coral structures

B) A tool that releases millions of coral larvae

C) Genetically modified corals resistant to bleaching

D) Robotic fish that clean algae off corals

8. A recent study utilizing DNA analysis of deep-sea brittle stars revealed a surprising level of global connectivity. Which of the following regions showed close evolutionary links with marine animals found off southern Australia?

A) The Arctic Ocean

B) The North Atlantic

C) The coast of Japan

D) The Mediterranean Sea

9. In the realm of conservation technology, what innovative tool has CSIRO developed to assist in the delicate process of cultivating baby corals in laboratories for reef restoration?

A) A soft robotic 'hand' or gripper

B) Automated 'coral nurseries' that mimic ocean currents

C) AI-powered drones that monitor coral growth

D) Submersible robots that collect coral fragments

10. The Phoenix Islands Protected Area (PIPA) in Kiribati has been recognized for its conservation efforts. What unique distinction did it receive from the United Nations General Assembly in 2018?

A) It was declared the world's first underwater national park.

B) It was recognized as an exemplary model of international cooperation in marine protection.

C) It was awarded for its significant contribution to reducing ocean plastic.

D) It was designated as a UNESCO World Heritage site for its biodiversity.

11. Recent research suggests that climate change is making Pacific Island nations increasingly uninhabitable. Which of these nations is predicted by some scientists to become inundated and uninhabitable within the next 50 to 100 years or less?

- A) Fiji
- B) New Zealand
- C) Tuvalu**
- D) Papua New Guinea

12. In Hawaii, scientists are combining traditional knowledge with modern technology for conservation. What Native Hawaiian cultural practice is being integrated with artificial intelligence to help manage endangered native birds?

- A) Hula dancing
- B) The art of lei making
- C) ?Oli (chants)**
- D) Traditional navigation techniques

13. A new initiative called 'Digital Earth Pacific' is using AI to assist Pacific communities. Which of the following is an example of how this tool is being used?

- A) To monitor deforestation in the Amazon rainforest
- B) To track land development and identify disaster-prone zones in Pacific Island countries**
- C) To predict volcanic eruptions in Iceland
- D) To manage traffic flow in major European cities

14. Recent discoveries of 'sunken worlds' in Earth's mantle beneath the Pacific Ocean are challenging existing theories. What technology is primarily used to identify these mysterious plate anomalies?

- A) Satellite radar
- B) Deep-sea drilling
- C) Seismic wave analysis**
- D) Magnetic field mapping

15. In Fiji, a unique Chinese technology called 'Juncao' has been introduced to benefit local farmers. What is the primary application of this technology?

- A) Growing drought-resistant rice
- B) Cultivating mushrooms and improving animal feed**
- C) Developing advanced solar power systems
- D) Purifying contaminated water sources