

Filipino Scientific Frontiers: Unveiling Recent Discoveries in Marine Life, Volc

Science · Practice Test · 10 Questions

1. A recent UP Marine Science Institute (UP-MSI) initiative launched a webpage titled 'Pag-asa Island: A Hidden Pearl of Biodiversity.' Which specific region's marine life and research is this initiative primarily focused on documenting?

- A) Palawan Seas
- B) West Philippine Sea
- C) Visayan Sea
- D) Mindanao Sea

2. The Philippine Institute of Volcanology and Seismology (Phivolcs) recently reported increased seismic activity at Kanlaon Volcano, linking it to progressive rock fracturing and the rise of magma. What was the approximate depth range of the recorded volcano-tectonic (VT) earthquakes?

- A) Up to 5 kilometers
- B) Up to 13 kilometers
- C) Up to 20 kilometers
- D) Up to 30 kilometers

3. A significant development in Philippine biomedical technology involves a modular phantom model system for gynecologic and obstetric ultrasound-guided procedures. Which government agency is funding dozens of such projects aimed at improving healthcare access and patient safety?

- A) Department of Health (DOH)
- B) Philippine Council for Health Research and Development (DOST-PCHRD)
- C) National Institutes of Health (NIH)
- D) University of the Philippines System

4. Recent research from the University of the Philippines Marine Science Institute (UP-MSI) highlights potential impacts of El Niño on Philippine fisheries. According to a researcher, which two seas are particularly vulnerable to decreased productivity due to reduced upwelling affecting small pelagic fish?

- A) Bohol Sea and Moro Gulf
- B) Sibuyan Sea and Visayan Sea
- C) West Philippine Sea and Sulu Sea
- D) Camotes Sea and Bohol Sea

5. The Department of Science and Technology (DOST) is preparing to showcase Filipino innovations at CES 2025. Which of the following sectors is NOT explicitly mentioned as a featured area for these innovations?

- A) AI-assisted agriculture systems
- B) Renewable energy
- C) Advanced robotics
- D) Health technology solutions

6. The DOST-Philippine Institute of Volcanology and Seismology (Phivolcs) clarified that a magnitude 7.8 earthquake that struck offshore Sarangani on June 8, 2026, was purely tectonic. What is identified as the likely cause of this powerful tremor?

- A) Volcanic unrest from Matutum Volcano
- B) Subduction-related movement along the Cotabato Trench
- C) Deep-sea hydrothermal vent activity
- D) Movement along the Philippine Fault Zone

7. A recent study from the University of the Philippines Diliman (UPD) College of Science developed an AI tool to accelerate the discovery of new antibacterial peptides. What is the name of this AI tool?

- A) AntibioPredictor
- B) PeptideAI
- C) ISCAPE
- D) BactDiscover

8. The Balik Scientist Program (BSP) plays a crucial role in national development. What was the total number of engagements with returned Filipino scientists reported by the DOST by October 2025?

- A) 697
- B) 933
- C) 75
- D) 11

9. Researchers at UP Diliman College of Engineering have registered a utility model for a new, sustainable design for a motor used in electric vehicles. What type of motor design is it?

- A) Axial flux motor
- B) Induction motor
- C) Modular stator segmented rotor switched reluctance motor
- D) Permanent magnet synchronous motor

10. Phivolcs reported increased seismic activity at Bulusan Volcano, with many volcano-tectonic earthquakes located beneath the edifice. What type of eruption could these subsurface processes potentially lead to?

- A) Lava flow eruption
- B) Phreatomagmatic eruption
- C) Steam-driven or phreatic eruption
- D) Volcanic ash plume eruption