

Southeast Asian Scientific Breakthroughs: New Species, Ancient Structures, and Conservation Challenges

Southeast Asia Science · Answer Key · 12 Questions

1. In a significant biodiversity survey across 21 protected forests in Vietnam, what was the most striking absence noted among large carnivores and herbivores, suggesting functional extinction in the surveyed areas?

A) Tigers, clouded leopards, and Asiatic wild dogs

- B) Rhinos and wild elephants
- C) Sun bears and gibbons
- D) Saltwater crocodiles and monitor lizards

2. Archaeologists in Indonesia's Sulawesi island recently unearthed stone tools dating back at least 1.04 million years. How does this discovery change our understanding of early hominin presence in the Wallacea region compared to previous findings on Flores island?

A) It suggests hominins reached Sulawesi significantly earlier than previously thought, possibly before reaching Flores.

- B) It indicates that hominins on Sulawesi were more advanced tool-users than those on Flores.
- C) It proves that hominins were already anatomically modern humans at that time.
- D) It suggests the tools were made by a species unrelated to Homo floresiensis.

3. A recent study on conservation priorities in Vietnam highlighted an overlap between these priorities and areas with high human dependency on natural resources. What does this finding challenge about traditional conservation approaches?

A) It challenges the assumption that conservation and human development are inherently at odds.

- B) It suggests that conservation efforts should solely focus on pristine, untouched wilderness areas.
- C) It implies that local communities are generally detrimental to biodiversity.
- D) It proves that economic development inevitably leads to biodiversity loss.

4. The largest biodiversity survey in Vietnam, spanning four years, documented significant species richness increases at 16 out of 21 sites. However, it also confirmed severe depletion in certain animal groups due to what primary threat?

A) Intensive snaring

- B) Habitat fragmentation
- C) Poaching for illegal trade
- D) Climate change

5. Recent paleontological research in Thailand has identified *Nagatitan chaiyaphumensis*, the largest dinosaur ever discovered in Southeast Asia. Approximately how many elephants would this sauropod have weighed?

- A) Up to nine elephants**
- B) Up to three elephants
- C) Up to fifteen elephants
- D) Up to twenty elephants

6. A new study published in *Communications Earth & Environment* regarding conservation in Vietnam utilized cutting-edge geospatial modeling tools. What was a key capability of these models?

- A) Integrating multifaceted datasets across scales and predicting biodiversity richness alongside human needs.**
- B) Simulating the impact of tourism on endangered species.
- C) Mapping the migration patterns of migratory birds.
- D) Analyzing the genetic makeup of invasive plant species.

7. In the Philippines, researchers recently identified a new species of sea slug adorned with gold. What is the scientific name given to this newly discovered species?

- A) Naisdoris aurornata**
- B) Goniodorididae elegans
- C) Chromodoris aurea
- D) Hypselodoris festiva

8. A conservation experiment in Indonesia's West Kalimantan province, known as KehatiKu, incentivizes local residents to participate in wildlife monitoring. What is the primary method used to encourage participation?

- A) Providing modest payments for recorded wildlife sightings via an app.**
- B) Offering free agricultural training and resources.
- C) Establishing community-funded wildlife sanctuaries.
- D) Organizing guided eco-tourism expeditions.

9. Recent discoveries in Cambodia's karst ecosystems have revealed new species. Which of the following was NOT among the types of species discovered in these limestone caves?

- A) Flying snakes
- B) Turquoise pit vipers
- C) New species of pitcher plants**
- D) Tiny land-based snails

10. Singapore has launched a significant research program aimed at tackling age-related health challenges. What is the total funding allocated for this 'grand challenge' initiative?

- A) \$350 million**
- B) \$100 million
- C) \$50 million
- D) \$750 million

11. A study in Singapore involving over 10,000 individuals has initiated a research program named Project RESET. What is the primary aim of this project?

- A) To assess the prevalence of heart disease, discover new biomarkers, and create innovative prevention strategies.**
- B) To develop new treatments for Alzheimer's disease.
- C) To map the genetic diversity of the Singaporean population.
- D) To study the effects of air pollution on respiratory health.

12. In the realm of nanotechnology, a Singapore-based company, SunGreenH2, is innovating in the production of green hydrogen. What is their core innovation that dramatically improves electrolyzer efficiency?

- A) Nanotechnology-based coatings and advanced materials for electrodes and porous transport layers.**
- B) The use of rare earth magnets in the electrolyzer design.
- C) A novel method of steam reforming of natural gas.
- D) High-pressure water electrolysis powered by solar panels.