

Ancient Monsters Could Have Preyed on Modern Apex Predators

Description

In the early Cretaceous Period, there were many different types of animals, not just dinosaurs. The oceans were also full of life, including some very big predators that don't exist today.

Researchers studied one ecosystem from this time where huge marine reptiles, like pliosaurs, hunted other big meat-eaters, creating a rare seventh level in their food chain.

In today's oceans, the food chain usually only goes up to level five or six, with animals like killer whales and great white sharks at the top.

The study focuses on creatures from the Paja Formation in Colombia, where the ocean was full of life at all levels of the food chain due to warm climates and changes in the Earth's land masses.

The ecosystem supported giant predators like ichthyosaurs and pliosaurs, showing how complex and lively it was 130 million years ago.

The researchers used data from fossils to build a picture of this prehistoric environment, helping us understand how ecosystems have changed over time.

This study provides new insights into ancient marine life and how predator-prey relationships shaped the diversity we see today.

Source: Zoological Journal of the Linnean Society

Vocabulary List:

1. **Ecosystem** /'i:.kəʊ,sɪs.təm/ (noun): A biological community of interacting organisms and their physical environment.
2. **Predators** /'prɛd.ɪ.tərɪ/ (noun): Animals that hunt and feed on other animals.
3. **Paleontologists** /,peɪliən'tɒlədʒɪsts/ (noun): Scientists who study fossils to understand the history of life on Earth.
4. **Diversity** /də'ver'si.ti/ (noun): The state of being diverse; variety.
5. **Complex** /'kɒmplɛks/ (adjective): Consisting of many different and connected parts.
6. **Insights** /'ɪn.saɪts/ (noun): An accurate and deep understanding of a situation or problem.

Comprehension Questions

Multiple Choice

1. What period is mentioned in the text where different types of animals lived, not just dinosaurs?

- Option: Jurassic Period
- Option: Cretaceous Period
- Option: Triassic Period
- Option: Paleogene Period

2. Which marine reptiles are mentioned as hunting other big meat-eaters in the ecosystem studied?

- Option: Plesiosaurs
- Option: Ichthyosaurs
- Option: Pliosaurs
- Option: Mosasaurs

3. How many levels are mentioned in the food chain of the ecosystem studied?

- Option: Five
- Option: Six
- Option: Seven
- Option: Eight

4. Where did the study focus on creatures from?

- Option: Amazon Rainforest
- Option: Yosemite National Park
- Option: Paja Formation in Colombia
- Option: Great Barrier Reef

5. What is mentioned as supporting giant predators like ichthyosaurs and pliosaurs in the ecosystem?

- Option: Cold climates
- Option: Warm climates
- Option: Volcanic eruptions
- Option: High levels of oxygen in the water

6. Which source is credited for the information provided in the text?

- Option: National Geographic
- Option: Science
- Option: BBC News
- Option: Zoological Journal of the Linnean Society

True-False

7. The food chain in today's oceans usually has a maximum of seven levels.
8. The study focuses on marine life in the Arctic region.
9. The ecosystem mentioned in the text was void of predators.
10. The researchers used live animals in their study.
11. The text mentions that the study provides insights into ancient marine life.
12. The study discusses the impact of climate change on marine ecosystems.

Gap-Fill

13. According to the text, the ecosystem was lively and complex _____ million years ago.
14. The researchers used data from _____ to build a picture of the prehistoric environment.
15. The study helps us understand how ecosystems have changed over _____.
16. The ecosystem supported giant predators like ichthyosaurs and pliosaurs in the warm climates of _____.
17. The study provides new insights into ancient marine life and how _____ shaped the diversity we see today.
18. In today's oceans, the food chain usually only goes up to level _____, with animals like killer whales and great white sharks at the top.

Answer

Multiple Choice: 1. Cretaceous Period 2. Pliosaurs 3. Seven 4. Paja Formation in Colombia 5. Warm climates
6. Zoological Journal of the Linnean Society

True-False: 7. False 8. False 9. False 10. False 11. True 12. False

Gap-Fill: 13. 130 14. fossils 15. time 16. 130 million years ago 17. predator-prey relationships 18. five or six

Vocabulary quizzes

Multiple Choice (Select the Correct answer for each question.)

1. What are the structures that contain genetic information in a cell?

- Option: Proteins
- Option: Chromosomes
- Option: Enzymes
- Option: Lipids

2. Which term refers to planets that orbit stars outside our solar system?

- Option: Galaxy
- Option: Exoplanets
- Option: Plasma
- Option: Cephalopods

3. What term describes the variety of different species in an ecosystem?

- Option: Predators
- Option: Complex
- Option: Diversity
- Option: Intermuscular

4. What is the body's response to injury or infection characterized by redness and swelling?

- Option: Symptoms
- Option: Inflammation
- Option: Resistance
- Option: Ecosystem

5. What term refers to new findings or revelations?



Option: Discoveries
Option: Astronomers
Option: Solar Systems
Option: Researchers

6. Which term describes something from a long time ago?

Option: Evolved
Option: Ancient
Option: Puzzling
Option: Plasma

7. What term describes the gradual development or change of something over time?

Option: Astronomers
Option: Galaxy
Option: Evolved
Option: Ecosystem

8. Who are the individuals who conduct experiments and studies to advance knowledge in a particular field?

Option: Paleontologists
Option: Galaxy
Option: Plasma
Option: Researchers

9. What is the ability to withstand or oppose something?

Option: Inflammation
Option: Symptoms
Option: Resistance
Option: Evolving

10. Which term refers to animals that hunt and feed on other animals?

Option: Intermuscular
Option: Discover
Option: Predators
Option: Plasma

Gap-Fill (Fill in the blanks with the correct word from the vocabulary list.)

11. A collection of an organism's complete set of _____ is called a genome.

12. Patients should report any unusual _____ to their healthcare provider.

13. Scientists make careful _____ to collect data for their research.

14. Technology is constantly _____ to meet the changing needs of society.

15. The study results were _____ in a scientific journal.

16. The mysterious disappearance of the artifact left archaeologists _____ over its whereabouts.

17. Squid and octopus are examples of _____.

18. The fourth state of matter after solid liquid and gas is _____.

19. Our planetary system is an example of a _____.

20. _____ study celestial bodies like stars planets and galaxies.

Matching Sentences (Match each definition to the correct word from the vocabulary list.)

21. Athletes focus on building strength in their muscles including those that are .

22. Scientists are always eager to new insights into the mysteries of the universe.

23. use powerful telescopes to observe and analyze distant celestial objects.

24. Our solar system is located in the Milky Way a vast collection of stars and planets.

25. The Amazon rainforest is home to a multitude of plant and animal species forming a complex .

26. study ancient life forms by examining fossils and geological records.

27. The coral reef ecosystem contains a wide of marine organisms in various shapes and colors.

28. Neural networks are powerful tools used to solve problems that traditional algorithms struggle with.

29. Researchers gain valuable into human behavior through psychology studies.

30. In the sun's core hydrogen undergoes fusion to form the hot ionized gas known as .



Answer

Multiple Choice: 1. Chromosomes 2. Exoplanets 3. Diversity 4. Inflammation 5. Discoveries 6. Ancient
7. Evolved 8. Researchers 9. Resistance 10. Predators

Gap-Fill: 11. Genomes 12. Symptoms 13. Observations 14. Evolving 15. Published 16. Puzzling 17.
Cephalopods 18. Plasma 19. Solar Systems 20. Astronomers

Matching sentence: 1. Intermuscular 2. Discover 3. Astronomers 4. Galaxy 5. Ecosystem 6. Paleontologists
7. Diversity 8. Complex 9. Insights 10. Plasma

CATEGORY

1. Health - LEVEL2

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