

“Behemoth From Hell” – Fresh Investigation Sheds Light on the Mystery Surrounding Debatable Dinosaur, the Heron

Description

[ai_quiz id="7"]

Spinosaurus on the Shore

In a stunning display of natural predator behavior in the primeval world, a pair of the sail-backed creatures - the gargantuan *Spinosaurus aegyptiacus* - are depicted in pursuit of prey in the crepuscular waters, while pterosaurs daintily crisscross the sky overhead. This scene harks back to approximately 95 million years ago on the northern coast of Africa. Credit: Daniel Navarro

Rigorous scientific inquiry unveiled by a team of indefatigable paleontologists from UChicago alongside their distinguished partners punctures significant holes in erstwhile theories that professed the sail-backed colossal predator - the Spinosaurus, indulged in active underwater hunting.

The gargantuan sail-backed creature of the Cretaceous epoch - the *Spinosaurus aegyptiacus* - has been a subject of intense intellectual debate surrounding its hunting techniques for a considerable length of time. *Spinosaurus*, one of the most formidable predators to stride the terrestrial surface, showcased distinctive aquatic adaptations. But the question that has vexed scientists pertains to its aquatic lifestyle. Was it a deep-sea diver, torpedoing to apprehend its prey, or a shoreline lurker, snapping up unsuspecting victims from the shallows?

Meta-analysis steered by UChicago paleontologists scrutinizes the bone density of this magnificent creature as an indication of its aquatic habits.

An amphibious predator or a deep-sea hunter?

When *Science* initially published detailed descriptions of an almost complete specimen of *Spinosaurus* in 2014, a group of researchers led by UChicago proposed it as an aquatic ambush predator, rather than a fully-submerged hunter. Contrarily, in 2020, an international assembly of scholars propounded that the dinosaur propelled itself similar to an eel to catch underwater prey, a theory deduced from its newly discovered, tall-spinous tail bones.

A 2022 *Nature* study by similar collaborators as before gave further credibility to their earlier conjecture, asserting that *Spinosaurus* had compact bones that facilitated it to dive like a penguin by acting as a balancer. This study also brought to light that its African antecedent, *Suchomimus*, owing to less dense bones, was more likely a wading creature.

Simultaneously, a research team at UChicago, collaborating with global peers, put these theories to test. They utilized digital technology to construct skeletal and flesh models of the *Spinosaurus* and *Suchomimus*. Their findings, revealed in *eLife*, concluded that both these creatures would have been unstable while



swimming up-top and too buoyant to dive completely into the water.

The indomitable team sought to further delve into the mystery surrounding bone density, a pursuit spearheaded by senior author, Paul Sereno, PhD, from UChicago and first author Nathan Myhrvold, PhD, Founder, and CEO of Intellectual Ventures. Their findings, chronicled in an enlightening paper titled “Diving dinosaurs? Caveats on the use of bone compactness and pFDA for inferring lifestyle,” recently graced the reputed journal *PLOS ONE*.

“Our aim was to recreate the measurements used in previous studies for bone density calculations. However, we ran into numerous variables that projected a vast spectrum of values- rendering initial conclusions questionable,” said Sereno, who is also a Professor of Organismal Biology and Anatomy at UChicago and had the privilege to lead the inaugural discovery of the new *Spinosaurus* specimen in 2014. “*Spinosaurus*, one of the largest carnivorous animals ever to have evolved, probably required extra bone density to support its weight on its relatively short hind limbs. It was perfectly capable of wading in deep water to engage in ambush hunting, managing to keep its extraordinary balance using its toes anchored firmly in the mud.”

Through continued study, paleontologists should better comprehend the potential pitfalls associated with this field of analysis. This collaborative research underscores the importance of meticulous and consistent criteria when deciding which species to include, and exclude from studies, as well as classifications of behaviour. They should also accommodate measurement errors and variations among individual species during the investigation of bone density.

Warning: Trying to access array offset on false in `/home/u750883576/domains/esl-news.com/public_html/wp-content/plugins/gpt-post-quiz/includes/admin/forms/gpoq-post-pdf-questions.php` on line 76

Warning: Trying to access array offset on false in `/home/u750883576/domains/esl-news.com/public_html/wp-content/plugins/gpt-post-quiz/includes/admin/forms/gpoq-post-pdf-questions.php` on line 76

Warning: Trying to access array offset on false in `/home/u750883576/domains/esl-news.com/public_html/wp-content/plugins/gpt-post-quiz/includes/admin/forms/gpoq-post-pdf-questions.php` on line 76

Warning: Trying to access array offset on false in `/home/u750883576/domains/esl-news.com/public_html/wp-content/plugins/gpt-post-quiz/includes/admin/forms/gpoq-post-pdf-questions.php` on line 76

Warning: Trying to access array offset on false in `/home/u750883576/domains/esl-news.com/public_html/wp-content/plugins/gpt-post-quiz/includes/admin/forms/gpoq-post-pdf-questions.php` on line 76

Warning: Trying to access array offset on false in `/home/u750883576/domains/esl-news.com/public_html/wp-content/plugins/gpt-post-quiz/includes/admin/forms/gpoq-post-pdf-questions.php` on line



Vocabulary List:

1. **indefatigable** // (adjective): Incapable of being tired out not yielding to fatigue untiring.
2. **puncture** // (verb): To make a small hole in something usually with a sharp point.
3. **professed** // (adjective): Acknowledged or declared openly avowed.
4. **vexed** // (adjective): Feeling or showing irritation annoyance or distress.
5. **antecedent** // (noun): A thing that existed before or logically precedes another.
6. **conjecture** // (noun): An opinion or conclusion formed on the basis of incomplete information.

Vocabulary quizzes

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

1. What is the meaning of the word "professed" in the following sentence: She professed her innocence to the crime?
Option: Admitted
Option: Claimed
Option: Denied
Option: Confessed
2. Which term best describes a scientific discovery or invention that significantly changes the current understanding or practices?
Option: Ordinary
Option: Traditional
Option: Conventional
Option: Groundbreaking
3. Which branch of astronomy deals with the origin evolution and eventual fate of the universe?
Option: Astrophotography
Option: Cosmology
Option: Astrometry
Option: Astrobiology
4. What are remnants or traces of something that existed in the past called?
Option: Vestiges
Option: Vexations
Option: Vortexes



Option: Vanguard

5. In writing which term is used to describe the act of providing more detailed information or explanation on a topic?

- Option: Summarizes
- Option: Complicates
- Option: Elicits
- Option: Elaborates

6. Which term describes a feeling of discomfort or lack of confidence in social situations?

- Option: Timidity
- Option: Boldness
- Option: Arrogance
- Option: Shyness

7. What term is used for the process of buying or obtaining assets or companies?

- Option: Divestitures
- Option: Distributions
- Option: Acquisitions
- Option: Allocations

8. Which term best describes an action done secretly or without anyone's knowledge?

- Option: Openly
- Option: Publicly
- Option: Covertly
- Option: Blatantly

9. Who are unauthorized individuals who enter a place without permission or welcome?

- Option: Guests
- Option: Residents
- Option: Strangers
- Option: Intruders

10. What term refers to an opinion or conclusion based on incomplete information or guesswork?

- Option: Fact
- Option: Truth
- Option: Conjecture
- Option: Certainty

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



-
11. Despite the challenges she remained _____ in her pursuit of justice.
 12. An infant has a strong _____ on their caregivers for basic needs.
 13. The con artist was skilled at _____ others for his own gain.
 14. The archaeologists discovered a small _____ of an ancient civilization in the cave.
 15. The professor taught the students about the _____ principles of quantum physics.
 16. A _____ is a basic unit of light.
 17. The spy _____ gathered information without being noticed.
 18. The _____ of a lightbulb glow brightly when electricity flows through them.
 19. The undercover agent operated in a _____ manner to gather intelligence.
 20. The _____ language used in the ancient manuscripts was difficult to decipher.

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



21. The observatory had powerful telescopes to study bodies such as stars and planets.
22. The scientist's research led to new discoveries in the field of nanotechnology.
23. To create the intricate sword the blacksmith had to heat and the metal.
24. The healer specialized in treating various from physical ailments to emotional pain.
25. The software could perform complex calculations in a matter of seconds.
26. In linguistics an is a word or phrase that a pronoun refers back to.
27. The artist the plain walls with colorful murals depicting local history.
28. The spies operated to gather intelligence without being detected by the enemy.
29. The large bright billboard was highly among the buildings in the city center.
30. The patient's on pain medication grew as the illness progressed.

Answer

Multiple Choice: 1. Claimed 2. Groundbreaking 3. Cosmology 4. Vestiges 5. Elaborates 6. Shyness
7. Acquisitions 8. Covertly 9. Intruders 10. Conjecture

Gap-Fill: 11. indefatigable 12. dependency 13. manipulating 14. remnant 15. esoteric 16. photon
17. surreptitiously 18. filaments 19. covert 20. obscure

Matching sentence: 1. Celestial 2. Groundbreaking 3. Forge 4. Afflictions 5. Sophisticated 6. Antecedent
7. Embellished 8. Covertly 9. Conspicuous 10. Dependency

CATEGORY

1. Sci/Tech - LEVEL6

Date Created

2024/03/13

Author

aimeeyoung99