



Discovery of 34-Million-Year-Old Snake in Wyoming Revolutionizes Evolutionary Understandings

Description

Ancient snakes have been discovered in Wyoming, shedding light on the continent's slithering past. The newly found fossil snake species, *Hibernophis breithaupti*, lived in North America 34 million years ago, providing insights into the evolution of boas and pythons. The fossils, found intertwined in a burrow, are remarkably well-preserved and articulated, offering clues to the early members of Booidea.

Hibernophis breithaupti's unique anatomical features hint at its possible position within the evolutionary tree. Researchers believe it may have played a key role in the early evolution of small, burrowing boas. This discovery challenges previous theories on the development of these snakes, suggesting that North America was a crucial hub for their evolution.

Moreover, the finding of these snakes curled together suggests a possible early evidence of social behavior and hibernation in snake populations. This behavior, observed in modern garter snakes, highlights the importance of group hibernation for heat conservation.

The study, published in the Zoological Journal of the Linnean Society, brings valuable insights into snake evolution and behavioral patterns, expanding our understanding of these fascinating creatures' history.

Vocabulary List:

1. **Anatomical** /ˌænəˈtɒmɪkəl/ (adjective): Relating to the structure of the bodies of humans or other organisms.
2. **Evolution** /ˌiːvəˈluːʃən/ (noun): The gradual development of something especially from a simple to a more complex form.
3. **Fossil** /ˈfɒsəl/ (noun): The remains or impression of a prehistoric organism preserved in petrified form or as a mold or cast in rock.
4. **Intertwined** /ˌɪntəˈtwaɪnd/ (verb): Twisted together or closely connected.
5. **Behavior** /bɪˈheɪvjər/ (noun): The way in which one acts or conducts oneself especially toward others.
6. **Hub** /hʌb/ (noun): The effective center of an activity region or network.

Comprehension Questions



Multiple Choice

1. Where were the ancient snakes discovered?

- Option: Wyoming
- Option: California
- Option: Florida
- Option: Texas

2. How long ago did Hibernophis breithaupti live in North America?

- Option: 20 million years ago
- Option: 50 million years ago
- Option: 34 million years ago
- Option: 10 million years ago

3. What insights do the fossils of Hibernophis breithaupti provide into?

- Option: Dinosaurs
- Option: Birds
- Option: Lizards
- Option: Boas and pythons

4. What type of behavior is suggested by the finding of the snakes curled together?

- Option: Migratory behavior
- Option: Social behavior
- Option: Aggressive behavior
- Option: Solitary behavior

5. What does the study published in the Zoological Journal of the Linnean Society bring insights into?

- Option: Dinosaur evolution
- Option: Snake genetics
- Option: Snake evolution and behavioral patterns
- Option: Amphibian migration

6. What is the possible early evidence of in snake populations?

- Option: Migration
- Option: Social behavior
- Option: Hunting behavior
- Option: Flying behavior



Answer

Multiple Choice: 1. Wyoming 2. 34 million years ago 3. Boas and pythons 4. Social behavior 5. Snake evolution and behavioral patterns

Vocabulary quizzes

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

1. Which type of organisms are microscopic and include bacteria and viruses?

- Option: Plants
- Option: Animals
- Option: Fungi
- Option: Microbial

2. What is a business agreement in which the owner (franchisor) allows others (franchisees) to operate under its name?

- Option: Joint venture
- Option: Partnership
- Option: Franchise
- Option: Licensing

3. What is the structural framework of a vehicle on which its body and mechanical components are mounted?

- Option: Engine
- Option: Chassis
- Option: Transmission
- Option: Exhaust

4. Which type of products are used to enhance or alter the appearance of the face or body?

- Option: Medical
- Option: Hygienic
- Option: Herbal
- Option: Cosmetic

5. Which term refers to the state or fact of continuing to live or exist typically in spite of difficult conditions?



- Option: Persistence
- Option: Resilience
- Option: Survival
- Option: Endurance

6. Which term relates to the structure of an organism or any of its parts?

- Option: Physiological
- Option: Pathological
- Option: Anatomical
- Option: Phenotypical

7. What term describes how well a task function or activity is executed or completed?

- Option: Efficiency
- Option: Performance
- Option: Productivity
- Option: Effectiveness

8. Which term refers to compounds containing carbon atoms bonded to other carbon atoms or hydrogen atoms?

- Option: Inorganic
- Option: Synthetic
- Option: Mineral
- Option: Organic

9. What occurs when a mechanical device or component operates beyond its safe temperature limits?

- Option: Short-circuiting
- Option: Overloading
- Option: Overheating
- Option: Malfunctioning

10. Which term describes something that is expected or predicted to happen in the future?

- Option: Imagined
- Option: Foreseen
- Option: Envisioned
- Option: Anticipated

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

11. Organic _____ contain carbon atoms bonded to other carbon atoms or hydrogen atoms.

12. The scientists conducted a detailed _____ of the data to draw meaningful



conclusions.

13. _____ is the process by which different kinds of organisms have developed and diversified from earlier forms.

14. Animal _____ can be influenced by a variety of internal and external factors.

15. The completion of the project ahead of schedule was a significant _____ for the team.

16. Proper _____ management is crucial to prevent electronic devices from overheating.

17. The software _____ focused on creating innovative applications for the company.

18. The rock sample contained significant amounts of _____ mineral.

19. The company offers extensive options for _____ of its products to meet customer preferences.

20. The company's CEO led the _____ of the new product line at the trade show.

21. The histories of the two families are deeply _____ due to generations of close relationships.

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

22. The company secured a agreement with a new partner to expand its reach.
23. The game focused on creating engaging gameplay experiences for a global audience.
24. The project is ongoing and is expected to be completed by the end of the year.
25. The strategic between the two companies resulted in a successful product launch.
26. The team was with the results of the experiment as it did not meet expectations.
27. The paleontologists discovered a rare embedded in the ancient rock formation.



28. The sudden drop in sales was considered an as it was unexpected given the current market trends.
29. The scientific community continues to study the process of to understand how species adapt over time.
30. Observing the animal's in their natural habitat provided valuable insights into their social interactions.
31. The city's central transportation connects various bus and train lines for seamless travel.

Answer

Multiple Choice: 1. Microbial 2. Franchise 3. Chassis 4. Cosmetic 5. Survival 6. Anatomical 7. Performance 8. Organic 9. Overheating 10. Anticipated
Gap-Fill: 11. Compounds 12. Analysis 13. Evolution 14. Behavior 15. Milestone 16. Thermal 17. Developer 18. Hematite 19. Customization 20. Unveiling 21. Intertwined
Matching sentence: 1. Licensing 2. Developer 3. Currently 4. Partnership 5. Disappointed 6. Fossil 7. Anomaly 8. Evolution 9. Behavior 10. Hub

CATEGORY

1. Sci/Tech - LEVEL3

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