



Bronze-Age Sheep Uncover Ancestor of Black Death

Description

Scientists have discovered an ancient bacteria in a sheep's tooth from a Bronze Age settlement. This bacteria is related to the one that caused deadly plagues like the Black Death. Studying diseases like plague involves looking at both ancient humans and animals. Many diseases, including plague, originated in settlements where people and animals lived close together.

The bacteria that causes the plague, *Yersinia pestis*, has been studied in human remains, but not much in other species. The bacteria likely originated in Eurasia around 3,800 years ago due to the close interactions between humans and animals. Evidence suggests that early outbreaks of plague occurred without fleas spreading it.

Researchers found traces of this ancient plague in a sheep, which is a unique discovery. This helps us understand how the disease spread in ancient times. Studying ancient diseases can provide insight into their evolution and potential threats to public health today. The study has not yet been reviewed by other scientists but is available for further research.

Vocabulary List:

1. **Bacteria** /bæk'tɪə.ri.ə/ (noun): Single-celled microorganisms that can exist either as independent organisms or as parasites.
2. **Settlement** /'setəlmənt/ (noun): A community or group of people living in a new area.
3. **Outbreak** /'aʊt,breɪk/ (noun): A sudden occurrence of a disease in a particular time and place.
4. **Evolution** /,i:və'lu:ʃən/ (noun): The process of gradual development in living organisms.
5. **Plague** /pleɪɡ/ (noun): An infectious bacterial disease characterized by high mortality.
6. **Insight** /'ɪn.saɪt/ (noun): The capacity to gain an accurate understanding of someone or something.

Comprehension Questions

Multiple Choice

1. Where did scientists discover an ancient bacteria related to the one that caused deadly plagues like the Black Death?

Option: In a sheep's tooth from a Bronze Age settlement



- Option: In a human skull from a medieval village
- Option: In a modern laboratory
- Option: In a fossilized tree trunk

2. What is the name of the bacteria that causes the plague?

- Option: Yersinia pestis
- Option: E. coli
- Option: Streptococcus
- Option: Salmonella typhi

3. When did the bacteria likely originate in Eurasia?

- Option: Around 3,800 years ago
- Option: Around 1,000 years ago
- Option: Around 10,000 years ago
- Option: Around 500 years ago

4. What is the significance of the discovery of ancient plague traces in a sheep?

- Option: Understanding the spread of the disease in ancient times
- Option: Proving theories about modern diseases
- Option: Demonstrating the immunity of animals to the plague
- Option: No significance

5. Why is studying ancient diseases important?

- Option: To provide insight into their evolution and potential threats to public health today
- Option: To understand animal behavior better
- Option: To prove a connection between humans and animals
- Option: To explore the history of plague doctors

6. Was the study of the ancient plague in the sheep reviewed by other scientists?

- Option: Not reviewed yet
- Option: Reviewed and rejected
- Option: Reviewed and accepted
- Option: No study conducted

True-False

7. Studying diseases like the plague only involves looking at ancient humans.



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8. Early outbreaks of plague were spread by fleas.
 9. The bacteria responsible for the plague has only been studied in human remains.
 10. The ancient plague traces were found in a cow instead of a sheep.
 11. Ancient diseases can provide insights into their potential threats to public health today.
 12. The interaction between humans and animals likely led to the origin of the plague bacteria.

Gap-Fill

13. The bacteria that causes the plague likely originated in Eurasia around _____ years ago.
15. Studying ancient diseases can offer _____ into their evolution and potential threats to public health today.
16. The study of the ancient plague in the sheep has not yet been _____ by other scientists.
17. Many diseases, including plague, originated in settlements where people and animals lived _____ together.
18. The ancient bacteria related to deadly plagues was discovered in a sheep's _____ from a Bronze Age settlement.

Answer

Multiple Choice: 1. In a sheep's tooth from a Bronze Age settlement 2. Yersinia pestis 3. Around 3,800 years ago 4. Understanding the spread of the disease in ancient times 5. To provide insight into their evolution and potential threats to public health today 6. Not reviewed yet
True-False: 7. False 8. False 9. False 10. False 11. True 12. True
Gap-Fill: 13. 3,800 15. insight 16. reviewed 17. close 18. tooth



Vocabulary quizzes

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

1. Which of the following is a respiratory condition characterized by narrowing of the airways?
Option: Asthma
Option: ADHD
Option: Seizures
Option: Pre-diabetes
2. Animals that hunt and prey on other animals for survival are known as:
Option: Predators
Option: Bacteria
Option: Settlement
Option: Outbreak
3. Systematic investigative activities to discover and interpret facts is known as:
Option: Flexibility
Option: Research
Option: Chromatophores
Option: Pigment
4. An event or occurrence that provokes a specific reaction or response is called a:
Option: Increase
Option: Healthcare
Option: Stimulus
Option: Crucial
5. The process by which different kinds of living organisms are believed to have developed and diversified from earlier forms is called:
Option: Athletes
Option: Soreness
Option: Evolution
Option: Plague
6. The quality state or capability of being connected or interconnected is known as:
Option: Insight
Option: Connectivity
Option: Cognitive
Option: Enrich



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7. The state of being tender sensitive or painful due to injury or overuse is known as:
- Option: Boost
 - Option: Soreness
 - Option: Flexibility
 - Option: Recovery
8. Brief disturbances in the electrical activity of the brain that may be associated with epilepsy are known as:
- Option: Investigation
 - Option: Seizures
 - Option: Pre-diabetes
 - Option: Increase
9. Cells containing pigment granules that change color in response to stimuli are called:
- Option: Boost
 - Option: Chromatophores
 - Option: Granules
 - Option: Electricity
10. The invasion of an organism's body tissues by disease-causing agents is called:
- Option: Connectivity
 - Option: Cognitive
 - Option: Enrich
 - Option: Infection

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

11. Attention-Deficit/Hyperactivity Disorder commonly known as _____
is a neurodevelopmental disorder.
12. The provision of medical services to individuals or communities to maintain or improve their health is known as _____.
13. Technological _____ have revolutionized various industries and aspects of human life.
14. The process of establishing a community or society in a specific area is called _____.
15. A widespread occurrence of a harmful infectious disease often resulting in many deaths is referred to as _____.



a _____ .

16. Gaining deep understanding or intuitive _____ into a specific subject can lead to valuable discoveries.

17. Microscopic organisms that can cause infections and often play essential roles in various ecosystems are known as _____ .

18. The _____ abilities of the human brain are crucial for processing information and making decisions.

19. To boost economic growth countries aim to _____ their production and innovation capacities.

20. Education plays a vital role in helping individuals _____ their knowledge and skills.

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

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| 21. Yoga and stretching exercises can improve one's physical and range of motion. |
| 22. Adequate rest and proper nutrition are essential for effective muscle after intense workouts. |
| 23. Energy drinks claim to provide a quick of energy due to their caffeine content. |
| 24. The color-changing ability of chameleons is due to specialized skin cells called that contain pigment. |
| 25. Some deep-sea creatures produce light through a process called bioluminescence using specialized cells that generate . |
| 26. Scientists conduct to explore new medical treatments and technologies. |
| 27. The in plant leaves is responsible for capturing sunlight during photosynthesis. |
| 28. The rapid in artificial intelligence have led to innovations in various industries. |
| 29. Effective communication skills are in building strong relationships and collaboration. |



30. Police detectives are involved in the of crime scenes and gathering evidence.

Answer

Multiple Choice: 1. Asthma 2. Predators 3. Research 4. Stimulus 5. Evolution 6. Connectivity 7. Soreness 8. Seizures 9. Chromatophores 10. Infection

Gap-Fill: 11. ADHD 12. Healthcare 13. Advancements 14. Settlement 15. Plague 16. Insight 17. Bacteria 18. Cognitive 19. Increase 20. Enrich

Matching sentence: 1. Flexibility 2. Recovery 3. Boost 4. Granules 5. Electricity 6. Research 7. Pigment 8. Advancements 9. Crucial 10. Investigation

CATEGORY

1. Health - LEVEL2

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