



Seawater Dumped on LA Fires: Scientists Monitor Impact

Description

In January 2025, firefighters in Los Angeles struggled to fight wildfires due to a shortage of freshwater. Skilled pilots in Super Scoopers planes collected seawater and dumped it on the fires with precision. While using seawater may seem like a quick solution, it can harm ecosystems and damage firefighting equipment.

Research on coastal forests exposed to salty water from sea-level rise shows that prolonged exposure can harm trees and change soil composition. In a study called TEMPEST, scientists saw trees react negatively to salty water over time.

Sea-level rise is a growing concern globally, causing more saltwater exposure in coastal areas. While seawater can help fight fires, freshwater sources are preferred when available to avoid potential risks.

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Vocabulary List:

1. **Wildfires** /'waɪld,faɪərz/ (noun): Uncontrolled fires that spread rapidly through vegetation.
2. **Freshwater** /'fref,wɔ:tər/ (noun): Water that is not salty commonly found in rivers and lakes.
3. **Ecosystems** /,i:kə'sɪs.təmz/ (noun): Communities of living organisms and their interactions with their environment.
4. **Prolonged** /prə'lɔ:ŋd/ (adjective): Extended in duration; lasting longer than usual.
5. **Composition** /,kɒm.pə'zɪʃ.ən/ (noun): The nature of something's ingredients or constituents; a mixture.
6. **Exposure** /ɪk'spəʊʒər/ (noun): The state of being subjected to something such as environmental conditions.

Comprehension Questions

Multiple Choice

1. In what year did firefighters in Los Angeles struggle to fight wildfires due to a shortage of freshwater?



- Option: 2020
- Option: 2025
- Option: 2030
- Option: 2040

2. What type of planes did skilled pilots use to collect and dump seawater on the fires?

- Option: Jetliners
- Option: Super Scoopers
- Option: Helicopters
- Option: Propeller planes

3. What negative impact can using seawater for firefighting have according to the text?

- Option: It attracts more wildlife to the fires
- Option: It accelerates the spread of fires
- Option: It harms ecosystems and damages firefighting equipment
- Option: It helps in controlling the fires efficiently

4. What is the name of the study where scientists observed trees reacting negatively to salty water over time?

- Option: OCEAN
- Option: TEMPEST
- Option: SEAFLOW
- Option: AQUASPHERE

5. Which environmental center is the author affiliated with?

- Option: National Geographic Society
- Option: World Wildlife Fund
- Option: Smithsonian Environmental Research Center
- Option: Greenpeace

6. What is the preferred water source for firefighting mentioned in the text?

- Option: Rainwater
- Option: Seawater
- Option: Freshwater
- Option: Underground water

True-False



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7. Using seawater for firefighting can result in harm to ecosystems and damage to firefighting equipment.
 8. Prolonged exposure to salty water from sea-level rise has been proven to have no negative effects on trees.
 9. Sea-level rise is not a global concern according to the text.
 10. Freshwater sources are not preferred for firefighting whenever available.
 11. The author of the article is the Director of Research at The Conservation.
 12. TEMPEST is a study that observed trees reacting positively to salty water exposure.

Gap-Fill

13. In January 2025, firefighters in Los Angeles struggled to fight wildfires due to a shortage of _____.
14. Skilled pilots in Super Scoopers planes collected _____ and dumped it on the fires with precision.
15. Research on coastal forests exposed to salty water from sea-level rise shows that prolonged exposure can harm trees and change _____ composition.
16. Sea-level rise is a growing concern globally, causing more saltwater exposure in coastal _____.
17. While seawater can help fight fires, _____ sources are preferred when available to avoid potential risks.
18. _____ Megonigal is the Associate Director of Research at Smithsonian Environmental Research Center.



Answer

Multiple Choice: 1. 2025 2. Super Scoopers 3. It harms ecosystems and damages firefighting equipment
4. TEMPEST 5. Smithsonian Environmental Research Center 6. Freshwater

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

Gap-Fill: 13. freshwater 14. seawater 15. soil 16. areas 18. Patrick

Vocabulary quizzes

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

1. Which natural disasters are characterized by uncontrolled fires in wildlands?

Option: Hurricanes

Option: Earthquakes

Option: Wildfires

Option: Tornadoes

2. Which process describes the gradual development of organisms over generations?

Option: Revolutionary

Option: Evolutionary

Option: Reactionary

Option: Involuntary

3. Which mineral is essential for strong bones and teeth?

Option: Iron

Option: Calcium

Option: Potassium

Option: Magnesium

4. Which infectious bacterial disease is also known as rabbit fever or deer fly fever?

Option: Tuberculosis

Option: Malaria

Option: Tularemia

Option: Cholera

5. Which term refers to an organism that hunts and feeds on other organisms?



- Option: Parasite
- Option: Prey
- Option: Predator
- Option: Producer

6. Which sense is related to the sense of smell?

- Option: Tactile
- Option: Auditory
- Option: Olfactory
- Option: Visual

7. Which term describes the deliberate release of viruses bacteria or other germs to cause illness or death?

- Option: Bioculture
- Option: Biodefense
- Option: Biotechnology
- Option: Bioterrorism

8. Which term describes a rapid back-and-forth movement?

- Option: Rotation
- Option: Vibration
- Option: Expansion
- Option: Constriction

9. What kind of conditions result from a lack of essential nutrients in the body?

- Option: Excesses
- Option: Deficiencies
- Option: Sufficiencies
- Option: Abundances

10. What term is used to describe the sudden occurrence of a disease in a specific geographic area or population?

- Option: Epidemic
- Option: Outbreak
- Option: Pandemic
- Option: Endemic

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

11. _____ is essential for human survival and agricultural activities.
12. _____ remains provide valuable information about ancient life forms.



13. Regular screening can help detect early signs of _____ cancer.
14. _____ are chemical signals that trigger social responses in animals.
15. Photosynthesis is the _____ by which plants convert sunlight into energy.
16. Regular exercise and a balanced diet contribute to a healthy _____.
17. Measures of _____ indicate the frequency of a disease in a defined population.
18. Biodiversity plays a crucial role in maintaining healthy _____.
19. Long-term _____ to environmental toxins can have detrimental health effects.
20. The Amazon rainforest is home to an incredible diversity of plant and animal _____.

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

21. The chemical of the atmosphere is crucial for supporting life on Earth.
22. Insects have tiny sensory organs called on their antennae.
23. The period saw a rapid diversification of multicellular life forms.
24. High blood can increase the risk of cardiovascular diseases.
25. Scientists conducted extensive to understand the effects of climate change.
26. The lion stalked its silently through the tall grass.
27. Dogs are often used to illegal substances at airports.
28. The flu is caused by an virus that spreads easily from person to person.
29. Ethical dilemmas often involve questions of and right and wrong.
30. A single can quickly multiply and cause an infection.

Answer

Multiple Choice: 1. Wildfires 2. Evolutionary 3. Calcium 4. Tularemia 5. Predator 6. Olfactory 7. Bioterrorism 8. Vibration



9. Deficiencies 10. Outbreak

Gap-Fill: 11. Freshwater 12. Fossilized 13. Colorectal 14. Pheromones 15. Process 16. Lifestyle 17. Morbidity
18. Ecosystems 19. Exposure 20. Species

Matching sentence: 1. Composition 2. Sensilla 3. Cambrian 4. Pressure 5. Research 6. Prey 7. Detect
8. Infectious 9. Morality 10. Bacterium

CATEGORY

1. Health - LEVEL2

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