Tule Springs Fossil Beds National Monument Teacher Resources

Grades 9-12

Tule Springs Fossil Beds is one of our newest National Park Service units, located in the Las Vegas Valley. We are providing these educational resources for K-12 educators together with our partners: the Protectors of Tule Springs. Over the last ~570,000 years, water has transformed the Upper Las Vegas Valley. Tule Springs Fossil Beds National Monument is an urban park that preserves the unique story of this ever-changing ecosystem

Tule Springs Fossil Beds National Monument preserves thousands of Pleistocene (Ice Age) fossils that help tell the story of a dynamic environment. These fossils were preserved within expanding and contracting wetlands between 100,000-12,500 years ago. Many of the Pleistocene animals of Tule Springs are still alive today, including the coyote (Canis latrans), jackrabbit (Lepus sp.), and aquatic snails. Some animals went extinct, disappearing from North America entirely.

The Monument also protects Mojave Desert habitat from urban development. This wildlife and plant corridor is home to a diverse group of native plants and animals. Flash floods are also common seasonally in the upper Las Vegas Wash. Important cultural resources, such as historic objects, cultural sites, and artifacts are also protected within the Monument.

Tule Springs Fossil Beds National Monument is in the early phases of park planning, so we do not have facilities on site. Further information can be found at NPS.gov/TUSK







Tule Springs Fossil Beds National Monument

Biodiversity Hunt-Field Experience

Introduction: Go to this link (https://www.nps.gov/articles/park-paleo-spring-2019-tulesprings.htm) to read more about Tule Springs Fossil Beds National Monument.

Required Materials: Cell Phone/Camera

Instructions:

- 1. On your Field Experience at Tule Springs Fossil Beds National Monument today, be sure to have your phone/camera ready. Try to take pictures of:
 - At least 3 DIFFERENT plant species
 - At least 3 DIFFERENT arthropods (insects, spiders, scorpions, etc.)
 - At least 3 DIFFERENT mammals, reptiles, or birds
 - i. While taking your pictures, try to use something to show the scale/size of the species (such as a coin or pen).
- 2. Create a slideshow presentation of the species you saw today
 - Compare your presentation with your classmates; how many DIFFERENT species did your class see? ______
- 3. As a class, discuss:
 - The importance of *biodiversity* in an ecosystem
 - Anything that stood out to you about the species you observed

4. (Optional) Use the internet, reference books, or other sources to find the common and scientific names of the species you found at Tule Springs. Add these names to your slideshow.

References

National Audubon Society. Birds and climate visualizer.

https://www.audubon.org/climate/survivalbydegrees/visualizer-1

National Park Service (2021). National parks in the history of science:

Radiocarbon dating. https://www.nps.gov/articles/000/radiocarbondating.htm

Springer, K.B., & Pigati, J.S. (2019). *Tule Springs National Monument-a Pleistocene treasure trove*. National Park Service.

https://www.nps.gov/articles/park-paleo-spring-2019-tulesprings.htm

Springer, K.B.; Pigati, J.S.; Scott, E. (2018). The geology and paleontology of Tule Springs Fossil Beds National Monument, Nevada.

https://www.nps.gov/tusk/upload/fs20183038-508-compliant.pdf

USGS. (2015). Las Vegas holds key to abrupt climate change.

https://www.usgs.gov/news/las-vegas-holds-key-abrupt-climate-change.