



She Did the Right Thing



From Vacation to Adventure

In May of 2010, seven-year-old Kylie Ferguson, on vacation from Georgia, participated in an National Park Service's Junior Paleontologist program at Badlands National Park, South Dakota. Just a few hundred feet from the visitor center, Kylie discovered a rare, museum-quality saber tooth cat skull.

Junior Paleontologist Follows Instructions

Like many families on vacation, Kylie, her sister Skylar, and their parents joined a Park Ranger in an outdoor activity. Taking a hike at Badlands National Park was one of the requirements for Kylie to earn a badge.

Kylie listened closely to the ranger and followed the activity book instructions about what to do if someone found a fossil at the park.

During the hike, Kylie and her mother noticed something buried in a butte near the park's Ben Reifel Visitor Center. It was white, shiny, and they thought it was a fossil.

Kylie was thrilled about her potential discovery, but she did not try to dig it out herself. Instead she returned to the visitor center and wrote up a detailed report that described her find and its exact location.

Observe, Excavate, and Analyze

All summer long, paleontologists at the park monitored Kylie's fossil. Each time it rained, the butte eroded and more of the fossil was exposed. To the park staff's amazement, they saw a saber tooth cat skull emerge.

It took three days of exacting work to dig around the fossil and to remove a small section of the butte with the fossil and surrounding rock. A trained fossil preparator heard about the fossil and volunteered to separate it from the section of rock.

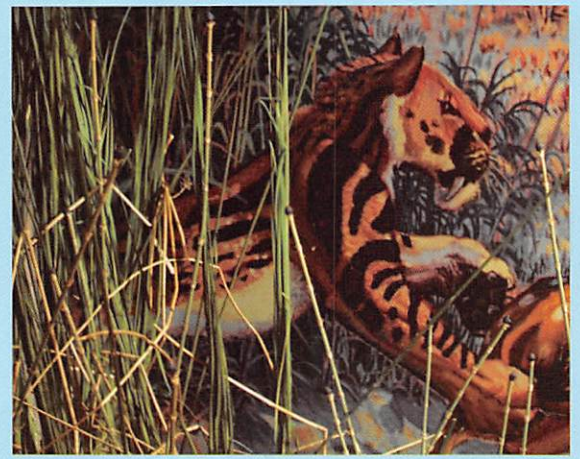
The paleontologists who studied Kylie's fossil noted several strange puncture marks on the skull. They suspected these marks were evidence that the saber tooth cat was attacked and killed by another animal, possibly another saber tooth cat.

The park superintendent wrote Kylie to share the exciting news. He noted that this saber tooth cat skull "...gives us a snap shot in time to learn about how these animals lived and interacted with other animals in the environment."



Saber Tooth Cat Facts Scientific Name: *Hoplophoneus*

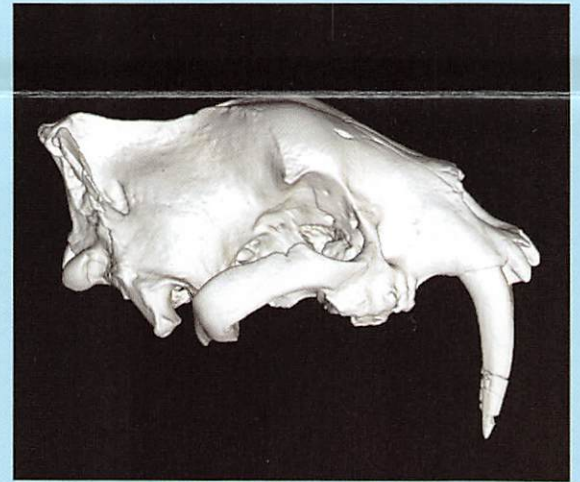
Saber tooth cats once roamed through open woodlands of the Eocene and Oligocene Epochs, which were 37 to 25 million years ago. Although they resemble cats and had retractable claws, they are not really cats. These creatures are famous for their knife-like canines, which may have been used for stabbing prey or to scare away enemies and show dominance.



CT Scan

Kylie and her family were at Rapid City Regional Hospital when a CT Scan was made of the skull. The resulting 3-D image supports the theory that bite marks seen on the skull were from another saber tooth cat and the injury caused the death of Kylie's saber tooth cat 33 million years ago.

In gratitude for Kylie's diligence, she was given the first plastic cast of the skull produced by the Badlands Natural History Association.



Become a Junior Paleontologist

To learn about paleontology in the National Park Service and to download Junior Paleontologist activities, go to: <http://nature.nps.gov/geology/nationalfossilday/>

National Fossil Day is a celebration organized by the National Park Service to promote public awareness and stewardship of fossils, as well as to foster a greater appreciation of their scientific and educational values.

To visit Badlands National Park or to learn more about Kylie's fossil, go to: www.nps.gov/badl

