

Museum Times

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In 2018, curator of paleontology Dr. Julia McHugh received a large research grant from the David B. Jones Foundation to study how the dinosaur bones found at the Mygatt-Moore Quarry were disturbed by other species in the Jurassic Period before they were eventually buried and fossilized. Working with a team of researchers that included Dr. Stephanie Drumheller-Horton from the University of Tennessee, Knoxville, geology students Miriam Kane and Anja Riedel from Colorado Mesa University, and the field crews and volunteers from Dinosaur Journey, they were able to examine more than 2,300 fossils collected from the Mygatt-Moore Quarry over the last 30+ years. Each of these 2,300 fossils were examined under sweeping light and low magnification. The objective of the research was to look for marks on the bone surfaces. And the researchers found them!



Pictured: Research Assistant Anja Riedel

More than 2,100 individual marks were measured and recorded on over 800 bones. That is about 35% of all the fossils examined, including all dinosaur species found at the quarry. Many of these fossils were scanned using the museum's 3D laserscanner to create digital models of the damaged bones. The traces found include bite marks from meat-eating dinosaurs, insect bore holes and feeding trails, abrasion, fractures, root marks, and more. The most numerous types of traces were dinosaur bite marks (almost 70% of all marks) and insect traces (about 20% of all marks).

This is the first large scale survey of a Jurassic bone bed for these types of marks. Are these traces being overlooked at other sites? Or, was the Mygatt-Moore Quarry just an exceptionally gross place to be a dinosaur carcass in the Jurassic? Curator of paleontology, Dr. Julia McHugh says " we need to examine other fossil sites in the Jurassic systematically, like we did with Mygatt-Moore, in order to answer this question. Right now, we just don't have enough information to decide between these two options."

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J a n u a r y / F e b r u a r y

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Example of marks the researchers were looking for

Continued from front page



This project was also unique, because all the work was done in full view of the public. Fossil excavations at the Mygatt-Moore Quarry were conducted alongside citizen scientists and often viewed by visiting onlookers. Examination of the fossils in the museum took place in the 3D digital scanning lab and the fossil collections, which are visible to the public in the Dinosaur Journey exhibition hall. You may have even seen posts about this research project during 2018 and 2019 through our social media platforms, or explored the new touchscreen exhibit, the “Virtual Fossil Kiosk” at Dinosaur Journey with 3D scans from this project.

Results from these studies will begin to be published in academic journals like PLoS ONE and PeerJ in just a few weeks. These are “open access” academic journals, where anyone can download the research for free. Collaborative research between the Museums of Western Colorado and other institutions on our collections helps us understand them better, reveal secrets from the prehistorical world, and deliver this knowledge to our community.

We hope you will have the chance to learn about research at the museum as these publications are made available. We will provide links to the articles on our website and social media and have some copies of the published articles at the museum for those who are interested in reading them. ■



Pictured: Research assistants Miriam Kane and Anja Riedel

 @DinosaurJourney
 @DinosaurJourney



The Rio Grande Modeling & Historic Society
 The Prospector
 Vol 18, Number 3, 3rd quarter 2019
 Mountaineer Wreck at Dos, Colorado

For those interested in learning more about Colorado's railroad history, Matt Darling the Curator of Cross Orchards Historic Site working with the Rio Grande Modeling & Historical Society published a story of a train wreck at Dos, CO near Parachute, CO in summer. The story starts with museum volunteers finding unmarked photographs of a train wreck and the ensuing hunt for what the photos represented, with details of how the wreck happened and its aftermath.



The 49ers may have lost the Superbowl, but they still made history for having the first female to ever coach in a Superbowl game. Grand Junction boasts many incredible women in our history, like Hattie G. Pearson-Murr.

Often recognized as one of the first women in the country to direct her own funeral and undertaking business, Hattie was the first elected female coroner in the state of Colorado, as well. Hattie born in 1862, moved to Grand Junction around 1905. She established and ran a successful business before and after her marriage.



Hattie's business and political success was well ahead of her time. Her career highlights and personal accomplishments were impressive. She was the Vice President of the Colorado Association of Funeral Directors and the Alternate for the National Association of Funeral Directors. She was also well known for her generous charitable endeavors, and recognized for giving back significantly to her community. To learn more about Hattie, visit the Loyd Files Research Library at the Museums of Western Colorado!





Museums of Western Colorado

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Calendar of Events

Easter Egg Hunt

April 11th

Join us for the 2nd Annual Easter Egg Hunt at Cross Orchards! There will be three different age group hunts, with kettle corn for sale, and golden egg prizes from the easter bunny, it is sure to be a treat!

9:30 Registration Begins - Bring your own Basket Please!

Old Fossil Classic

April 24th

Registration is now open for the 10th Annual Old Fossil Classic! Join us on the beautiful Adobe Creek National Course! Don't miss out! Get your foursome together and register today at www.olfossil.org

9 a.m. Shotgun start - Additional games, prizes and tons of Fun!!!

Spring Day on the Farm

May 2nd

Join us for a Spring Day on the Farm at Cross Orchards. Food Trucks, and Performances. Ride on Train Open! Enjoy the spring weather on the grounds, explore the permanent and visiting exhibits!

Runs from 9:00 am - 3:00 for an all day family fun event!

Speakeasy

May 8th

The popular event from last year is back! We are excited to continue the party back into the 20s!!!

Mark your Calendars! More information to Come!

Trips and Tours

Coming Soon!

Our 2020 Trips and Tours are shaping up to be Adventurous and Educational as ever!

Check www.museumofwesternco.com for information to come!

DinoDigs

Summer Dates Available

Whether you are looking for a multi day trip to take with the Grandkids, or immerse yourself for a half day, we have many digs available for registration on our website!

www.museumofwesternco.com to register today!