

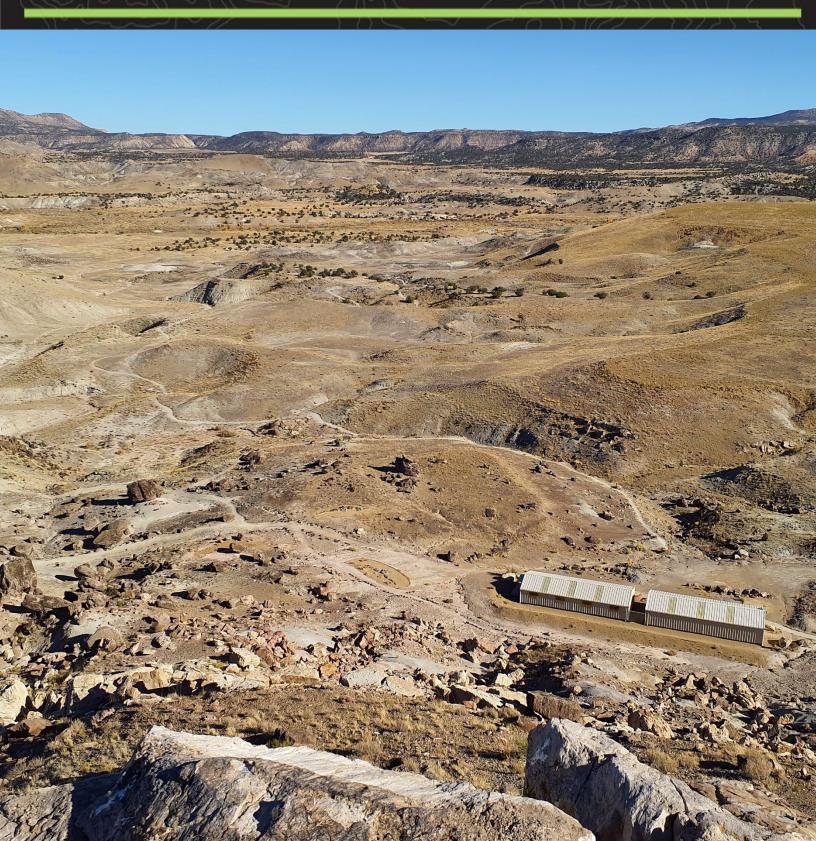
NATIONAL CONSERVATION LANDS

Utah

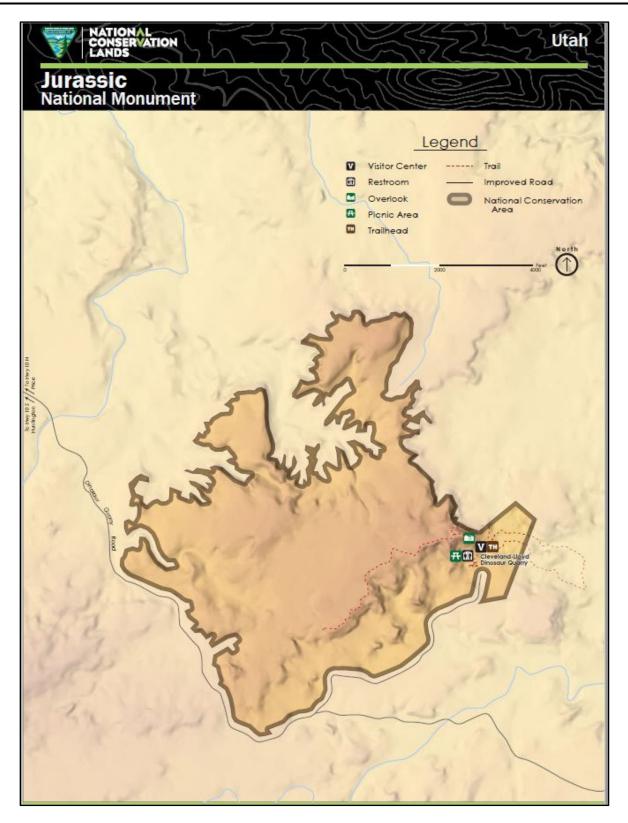
2024: Annual Manager's Report

Jurassic

National Monument



Map



Accomplishments

In early FY2024, Jurassic National Monument (JNM) successfully completed the trails construction and maintenance project that was awarded and initiated in FY2023. This project aimed to improve visitor accessibility and enhance the trail system by adhering to modern design standards, ensuring both safety and resilience. Our efforts involved significant reroutes and modifications to the existing trail system to address erosion, discourage off-route travel, and enhance the long-term sustainability of our trails.

In our efforts to improve interpretation and wayfinding, with assistance from our American Conservation Experience interns, we installed five new interpretive panels and 11 directional signs. Additionally, we developed ten wayside interpretive signs for the 1.3-mile Jurassic Journey Trail, which are scheduled for installation in early FY2025.



Newly installed wayside interpretive sign at Jurassic Journey Trail

Challenges

The existing quarry buildings are aging, and their current design allows water from the roof to fall upslope of the buildings and drain directly into the quarry. The surrounding soil contains high bentonite clay content, which facilitates piping within the clay as rainwater or snowmelt flows off the roof. This water, mixed with clay, seeps into fractures in the bones within the quarry. When the clay dries, it settles deeper into these fissures, and as it absorbs moisture, the clay swells, further degrading the bones.

To address these issues, we will construct a new, more modern building to cover the footprint of both existing structures. The new building will have a single pitch roof sloping toward the downhill side, directing water away from the quarry. We will also construct enhanced drainage measures, including a retaining wall, to prevent water from entering the quarry, thereby better protecting the fossils.

To prevent damage during construction, all bones within two feet either side of the new building's footings had to be carefully removed and properly stored. In FY2024, we awarded a contract for removal of these at-risk bones.

We worked closely with engineers, paleontologists, and the contractor to identify which bones needed to be removed and to determine the specific areas that required excavation. Throughout this process, we faced several challenges in preparing for the replacement of the quarry buildings, including tight deadlines, necessary contract modifications. and the need for additional funding.

With support from Bureau of Land Management (BLM) staff, the contractors worked diligently for five weeks to successfully remove and preserve the fossils.

Visitors

Visitation data is reported daily by staff members at the visitor center, where they accurately count individuals as they enter. This method ensures reliable and consistent visitation numbers, enabling effective tracking of trends over time.

Visitation remains consistent over the last five years, with 4,455 individuals visiting the monument in FY2024. Despite our expectations for an increase in visitation due to enhancements in visitor amenities, expanded recreation opportunities, improved accessibility, and strengthened partnerships with local organizations, annual visitation has consistently remained around 4,500. We will continue to focus on improving community engagement and amenities to encourage greater attendance in the future. In addition to our annual in-person visits from elementary schools, we also host three virtual tours of the monument for high school geoscience classes.



One of the many tours provided to the public by staff at the JNM

Partnerships

We continue to partner with the Utah State University Eastern Prehistoric Museum and the Intermountain Natural History Association. We are working closely with both Carbon and Emery Counties concerning the management of the monument and the opportunities provided.

The monument hosted two American Conservation Experience interns for 16 weeks or 640 hours. The interns worked one day a week alongside the curator of paleontology at the Utah State University Eastern Prehistoric Museum where they assisted in the preparation of fossils for display and curation. Additionally, they contributed to the museum's collections by helping to catalog and organize inventory.

At the Jurassic National Monument visitor center, the interns provided guided tours and developed interpretive materials to enhance visitor engagement and education. Their efforts not only supported the museum's mission but also enriched the overall visitor experience by sharing insights about the fossils and the significance of the monument.



JNM volunteers preparing fossils for curation

Science

Dr. Joe Peterson and Dr. Jonathan Warnock have continued research within the bone bed to discover clues to the mystery of the dense concentration of bones belonging primarily to predators. Researchers continue to utilize 3D photogrammetry, taphonomy, and geochemistry to reconstruct the origin of the largest accumulation of predatory dinosaur bones in the world and its relationship to other sites in the late Jurassic Morrison Formation.

Research at the Jurassic National Monument is vital for advancing our knowledge of dinosaur biology, ecology, and the geological history of the region. The findings contribute to the broader field of paleontology and enhance public interest and education regarding these ancient creatures.



Researchers work within one of the "bone beds" at JNM

Outreach and Special Events

In April, the JNM staff co-hosted the Green River Rocks event, where they managed a booth and led tours of the monument. We engaged attendees to teach about rocks, minerals, fossils, and the significance of BLM-managed lands. In May, we provided tours to 4th grade classes from multiple schools, setting up educational stations outside the visitor center to teach students about different aspects of the monument. In September, staff collaborated with the Utah State University Eastern Prehistoric Museum to celebrate National Fossil Day, offering crafts for children and educational stations teaching about paleontological, geological, and archaeological resources. Throughout these events, we actively engaged visitors by allowing them to handle vertebrate and invertebrate fossils, presenting slides showcasing the recent monument improvements, and sharing the JNM YouTube playlist.



BLM specialist provides interpretation to young children at the Green River Rocks event

Five Year Anniversary

On March 12, 2019, Public Law 116-09, commonly known as the Dingell Act, designated the Cleveland-Lloyd Dinosaur Quarry and surrounding 850 acres as the Jurassic National Monument, which is part of the National Landscape Conservation System. Our staff take great pride in the accomplishments achieved since its designation.

In recent years, our staff have intensified their efforts to enhance the paleontological, scientific, educational, and recreational resources of the monument. This includes updating the Junior Ranger book, establishing a gift shop and bookstore, adding tactile learning equipment and a shade structure to the picnic area, improving trails, upgrading and adding displays at the visitor center, and adding interpretive materials along the trails.

We are looking forward to the additional improvements planned for FY2025-FY2026 that will further enhance the visitor experience at the monument.



Newly installed wayside interpretive sign at Jurassic Journey Trail



Jurassic National Monument

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