



**NATIONAL
CONSERVATION
LANDS**

Utah
2022: Annual Manager's Report

Jurassic National Monument

National Conservation Area



Map

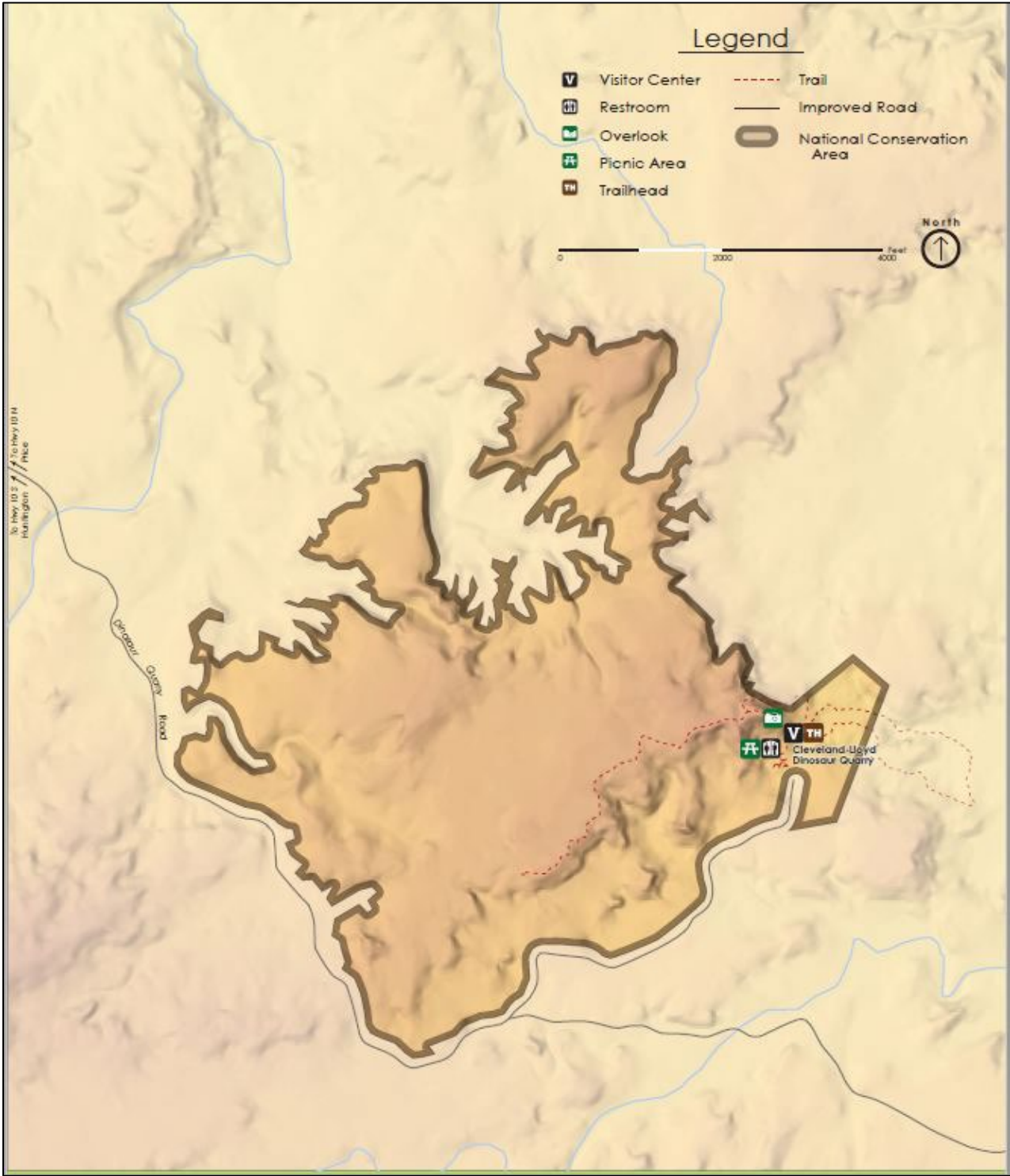


Figure 1: Map of Jurassic National Monument

Accomplishments

The Jurassic National Monument (JNM) had many accomplishments this year. In October 2021, the BLM published a Notice of Intent in the *Federal Register* announcing the initiation of a Resource Management Plan (RMP) amendment and public scoping period to address new designations within Public Law 116-9, the John D. Dingell, Jr. Conservation, Management, and Recreation Act, one of which was Jurassic NM. The public was invited to participate in scoping meetings and provide comments in November 2021.

Throughout spring and summer, staff dedicated much of their time working with contractors to design three 60% scale, scientifically accurate, dinosaur sculptures representing *Camptosaurus*, *Stegosaurus*, and *Allosaurus*, all of which have been discovered within the quarry. We installed a new entry sign displaying the hours of operation near the main county road to replace the more temporary signs previously used. During the summer of 2022, we hosted two American Conservation Experience (ACE) interns for 16 weeks. Their main priorities involved staffing the visitor center, developing new interpretation, and excavating fossils within the quarry buildings and throughout the field office. Spanning two weeks in July, Professor Jonathan Warnock from the Indiana University of Pennsylvania and Professor Joseph Peterson from the University of Wisconsin at Oshkosh brought several students to continue excavations and research within the bone bed.

In August, we established a giftshop in partnership with the Intermountain Natural History Association to enhance visitors' experiences at the monument. In the fall of 2022, we installed the foundations for three new dinosaur sculptures. Scheduled to be installed in FY2023, the sculptures will enhance visitor experiences and interpretation opportunities along our main hiking trail. Throughout the year, we continued planning and coordination with local partners, including the Utah State University Eastern Prehistoric Museum, regarding the preparation for the proposed quarry building replacement.



Figure 2- New Sculpture Design



Figure 3 – JNM giftshop

Challenges

The JNM has several challenges related to existing trails, interpretation, and staffing. It is unclear when the trail systems at the monument were developed, but many of the trails do not meet modern design standards to ensure they are safe, accessible, and resilient. There are many issues that make the current trail alignments unsustainable into the future. The condition of trails require extensive re-routes, modifications, and potential resurfacing to combat erosion and discourage off-route travel. In the Fall of 2022, we submitted a solicitation for a trail maintenance and construction contract. We are currently reviewing bids to provide the necessary trail maintenance and construction needs required to make our trails safe and sustainable. The contract will be awarded in FY 2023. Interpretation continues to be lacking outside the visitor center. The interpretive plan developed in 2021 was a great start to develop new interpretive information, but we are still working on finalizing the required edits and merging the content with the new BLM sign standards. Balancing staffing levels with the existing visitation levels continues to be challenging to ensure good visitor experience and appropriate use of funding.



Figure 4 -Unstable portion of the Rock Walk Trail

Visitors

The JNM is a popular destination for individuals of all ages visiting palaeontologic sites along the Dinosaur Diamond National Scenic Byway or for those who have a general interest in paleontology or geology. Visitation decreased by 15% compared to the previous year for a total of 3,817 individuals in 2022. We anticipate future visitation will increase as we continue to build our relationship with the local Utah State University Eastern Prehistoric Museum, increase our presence on social media, and as visitors post images of recent developments and leave positive reviews on popular websites.



Figure 5 – Children Investigating Tactile Learning Equipment

Partnerships

We are currently partnering 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. We continue to work with Emery County and Federal Highway Administration to upgrade the first 5 miles of the access road to improve visitor access.

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. In 2022, research carried out at the Cleveland-Lloyd Dinosaur Quarry has led to additional information regarding the importance of microfossils and how the presence of charophyte gyrogonites supports the theory that the quarry may have been an ephemeral pond. Their research has provided insight into the role microfossils play in extinct ecosystems and may provide more information regarding the ancient ecosystem of the quarry.



Figure 6 – Researchers and Students Excavating in the Quarry

Climate Impacts and Resiliency

Persistent severe drought conditions continue to impact most areas of Utah and the Jurassic National Monument.

Management decisions regarding actions within the NCA and future implementation level actions will take climate resiliency into account as part of the National Environmental Policy Act and land use planning process.

Social and Environmental Justice

Social and environmental justice considerations for under-represented groups and tribal consultation continues to occur as part of the land use planning process.

Events

In March 2022, JNM staff participated in the Green River Rocks event by staffing a booth and hosting tours. In May, JNM staff provided tours to local 4th grade classes and set up stations outside the visitors center to teach about the different aspects of the monument. Staff coordinated a field visit with the University of Utah and provided site tours to students and professors. In September, staff partnered with the Utah State University Eastern Prehistoric Museum for a National Fossil Day celebration involving crafts for kids, guided tours, and multiple lectures.



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