



**NATIONAL  
CONSERVATION  
LANDS**

**New Mexico**  
2024: Annual Manager's Report

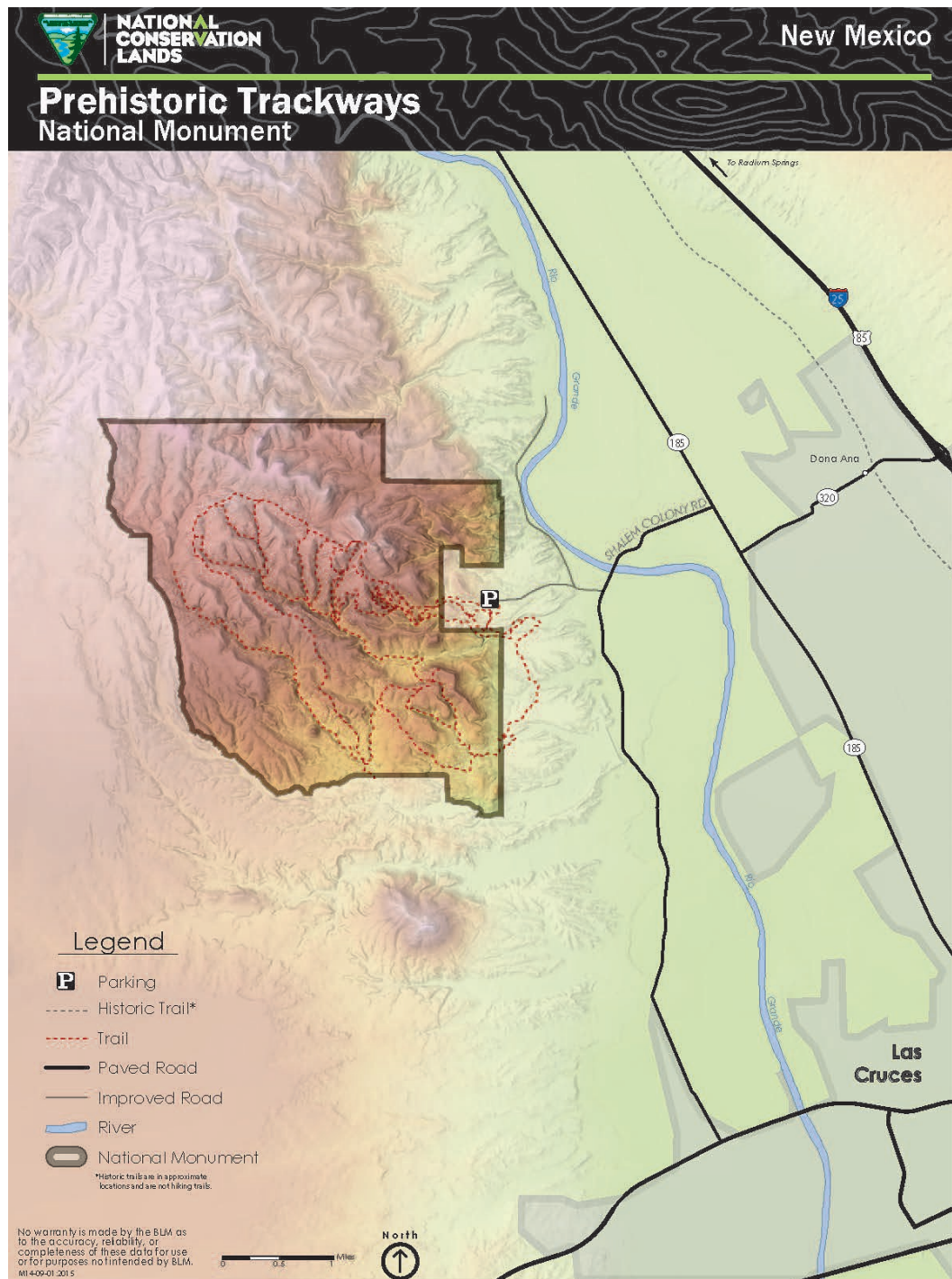
# Prehistoric Trackways

National Monument





# Map





# Accomplishments

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To support the study and conservation of the Prehistoric Trackways National Monument's (Monument) irreplaceable heritage resources, Bureau of Land management (BLM) experts in micro-scale photogrammetry visited the Monument in January 2024 to train the BLM Las Cruces District Office (LCDO) paleontologist, archaeologists, and other staff in proper methodologies for documenting trace fossils. These techniques can be used to create 3D models of specimens. These models allow researchers to conduct detailed analyses and serve as a digital record of the specimens, ensuring their preservation in case the originals are damaged or altered.



**BLM staff doing photogrammetry modelling.**

Also, three compliance inspections were done in the Monument to ensure cattle grazing was being managed appropriately by permittees. Grazing bills were issued on time for the Altamira and Picacho Peak Allotments. The BLM uses actual use billing for Picacho Peak, meaning this allotment is not billed until after the grazing year; the grazing year runs March 1<sup>st</sup> to February 28<sup>th</sup>. Currently, the Altamira allotment is billed annually in the start of the grazing year.

# Challenges

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Community Pit #1 is an old mineral material pit that was closed in 2007. Although located outside the Monument, Community Pit #1 is surrounded on three sides by the Monument, with several major trails – the SST Mechanized Trail, PTNM Loop OHV Road, Ridgeline Trail, and Discovery Trail– nearby. Significant reclamation has been needed since the Pit’s closure in 2007. To mitigate public safety hazards within Community Pit #1 including highwalls, spoil piles, and shallow pits, the BLM analyzed several alternatives in DOI-BLM-NM-L000-2023-0028-EA. The proposed mitigation plan included blasting and recontouring the site. Remediation efforts began in December 2023.

The blasting of the Community Pit presented several challenges for the Monument staff. In Fiscal Year 2024, the remediation of the Community Pit #1 was a significant commitment of staff’s time in assisting with paleontological resource and safety monitoring efforts. Staff across the BLM’s LCDO were called upon to help monitor during blasting days, often several days a week over a period of several months. Key trails and access points were temporarily closed to the public and staff during the blasting. These closures significantly restricted public access and recreation within the Monument for much of the year.

Monument staff observed impacts on the Monument’s trails and resources over the course of the year. Most commonly, OHV/UTV or similar vehicles were observed to have been driving on trail systems that are designated for pedestrian or equestrian use. Unauthorized motorized vehicle use has widened trails and harmed surrounding resources, including natural features, fossil sites, and soil erosion. An example of this is in Branson Canyon Trail, which is designated for non-motorized, non-mechanized use, where updated aerial imagery has revealed the creation of a new unauthorized, user-made, two-track trail branching off the trail. Monument staff are actively assessing the situation to develop appropriate travel management and planning strategies to mitigate these impacts and prevent further unauthorized use.

The Picacho Peak grazing allotment, partially on the Monument, continues to see an influx of recreationists. Increased recreational use has led to ongoing damage to fences, with instances of people cutting them and leaving gates open. This has allowed cattle to get into homeowner’s private yards around the Picacho Peak subdivision and cause damage to the surrounding landscape.



# Visitors

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Visitor use is tracked by a TRAFx vehicle counter placed at the entrance to the Monument. Due to a technical issue, visitor data was not collected past the month of July in 2024. The remaining months of visitor use were extrapolated using existing data. It is estimated that the total number of visits to the Monument numbered 39,878; an increase of 3,273 from 2023. However, this number likely increased due to increased vehicle traffic and other activity related to the remediation of nearby Community Pit #1. It is expected that visitor use was similar to, or less than, the previous year's numbers.

The regularly scheduled blasting days for the Community Pit #1 meant closure of all trails in and around the Community Pit to protect the health and safety of visiting public. After the blasting component of the remediation effort was complete in May of 2024, visitors were able to enjoy the Discovery and Ridgeline trails within the Monument without further closures. However, other trail systems such as the SST Mechanized Trail and PTNM Loop OHV Road were not entirely accessible to visitors as large boulders from the blasting effort blocked critical access to the trail system. The BLM is coordinating with the contractor to develop a plan for removing the rocks and restoring access to the trail system.



**Visitors hiking the Discovery Trail.**



# Partnerships

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Due to access restrictions associated with Community Pit #1, partner-assisted interpretive opportunities, such as guided hikes into the Monument, were reduced from previous years. In Fiscal Year 2024, the BLM and the Friends of the Organ Mountains-Desert Peaks (Friends) docents led one guided hike to the Discovery Site, down from four the previous year.

The Friends also supported the BLM in celebrating the Monument's 15th anniversary at the Las Cruces Museum of Nature and Science (MoNaS) by hosting a tote-stamping activity and providing beautifully themed, eye-catching cookies for attendees to enjoy!



**Robledo Mountains**

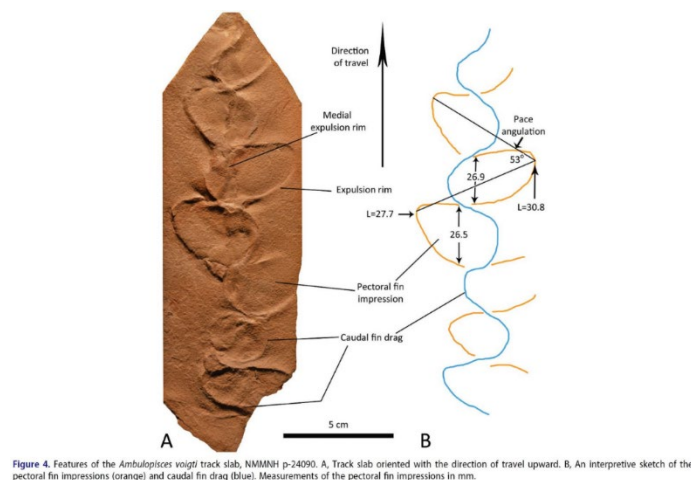
# Science

Researchers from the New Mexico Museum of Natural History and Science (NMMNHS) described a new trace fossil from the Monument in the journal *Historical Biology* (an international journal of paleobiology), published July 2024.

The newly identified trace fossil was a specimen originally collected by Jerry MacDonald and the New Mexico Museum of Natural History and Science (NMMNHS) as a part of the Congressional Trackways Study Report (1994) from what is now the eastern edges of the Monument. It was initially identified as the trace fossil *Undichna britannica*, characterized by two overlapping sinusoidal wave-like traces representing the anal and caudal fin drags of a swimming fish. However, a recent re-examination by NMMNHS researchers revealed that one of the wave patterns actually consists of alternating left and right pectoral fin impressions, providing evidence of fish walking behavior!

"Propulsion was accomplished by alternately pressing the pectoral fins into the substrate and flexing the body to bring the opposing pectoral fin and the body forward. The identity of the tracemaker is uncertain, but it was a small, low-profile fish whose pectoral fins spanned only ~ 60 mm. The proximity of the pectoral fin bases to the centerline of the trace does not support a lobe-finned fish as the tracemaker." (Rinehart & Lucas, 2024)

They named this new trace fossil *Ambulopisces voighti* (pictured below), and it is only known from this type locality. This study demonstrates that the red beds of the Robledo Mountains Formation, found mostly in the Monument, with some in the neighboring Organ Mountains-Desert Peaks National Monument, and the Community Pit #1 area, continue to produce literally one-of-a-kind fossil specimens that expands our knowledge of past life.





# Outreach and Special Events

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In Fiscal Year 2024, the Monument marked two major milestones: the 15th anniversary of its establishment under the 2009 Omnibus Public Land Management Act and the 5th anniversary of the Robledo Wilderness Area, designated through the John D. Dingell, Jr. Conservation, Management, and Recreation Act of 2019.

In celebration of the Monument's anniversary, on Saturday, March 30th, a public birthday bash was held at the Las Cruces Museum of Nature and Science (MoNaS), where several of the Monument's important early Permian fossils are displayed. At the celebration, visitors learned about life before the dinosaurs, identified trace fossils, made their own prehistoric tracks, and snacked on paleontological themed cookies! Over 370 people, of which 125 were youth, joined the BLM, MoNaS, and the Friends for this celebration!



**Anniversary events at MoNaS.**

In 2024, the Monument hosted or participated in 26 in-person events focused on education and outreach for paleontological resources and geology, reaching a total of 3,434 people, including at least 808 youth. These events featured guided hikes, table talks, fossil show-and-tells, and larger multi-organization gatherings. National Fossil Day was celebrated locally in July at the MoNaS, drawing 919 visitors, 409 of whom were youth.



# RAMP Implementation

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Since 2021, the Monument has been actively working to implement the ambitious goals and objectives outlined in its Recreation Area Management Plan (RAMP). The purpose of the RAMP is to enhance recreational opportunities while safeguarding sensitive paleontological resources and special-status plant species. It also aims to protect the recreational opportunity values outlined in the Monument's Resource Management Plan and Record of Decision (2015). The Monument contracted an engineering company to develop designs and cost estimates for various recreational and Architectural Barriers Act accessibility improvements in alignment with the RAMP.

The Monument is in critical need of long overdue improvements for recreational opportunities. The Monument currently has very little recreational infrastructure, which consists of its trail systems and two dirt parking lots with a few interpretive signs. The proposed improvements outlined in the design plan include paving parking lots and roadways, constructing picnic facilities, benches, and restrooms, expanding interpretive signage, installing bike racks and hitching posts, and implementing various erosion control measures. Additionally, the plan prioritizes ABA and Americans with Disabilities Act accessibility by incorporating specially designed trails, walkways, and parking spaces to ensure greater access within the Monument.

The designs and cost estimates for the RAMP improvements were finalized in August of 2024 with significant input and feedback by Monument staff. Due to the ambitious scope of the recreational improvements, the bid package for the proposed designs was split into three phases of construction. The first phase of construction would entail a visitor contact station area (e.g. toilets, paved parking, picnic facilities, horse hitching posts, bike racks, newly accessible trail, benches, and informational kiosks/interpretative signs). The total estimated construction costs for phase one would be \$728,000. The second phase of construction would entail improvements to the Ridgeline Trailhead Parking area (e.g. toilets, paved parking, information signs). The total estimated construction costs for phase two would be \$404,000. The third phase of construction would be to pave the access road leading into the Monument and to the parking areas and visitor contact station. The total estimated construction costs for phase three would be \$561,000.

The total estimated construction costs for the proposed recreational improvements is \$1,693,000 and the site furnishings costing \$682,000 for a grand total of \$2,375,000. Implementation of the RAMP by the BLM will proceed as funding is secured.



# NATIONAL CONSERVATION LANDS

## **Prehistoric Trackways National Monument**

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<https://www.flickr.com/photos/blmnewmexico/albums/72157644381238958/>

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