



# EXTINCTIONS EXPEDITION

2024 Final Report



This was our 30<sup>th</sup> EXTINCTIONS EXPEDITION to the badlands of Eastern Wyoming to continue excavating two partial triceratops skulls. We had 33 people join us during our month-long expedition from July 1-19.



A golden eagle leaps into the sky as crew hike to summit a sandy butte.



# GOALS for the 2024 FIELD SEASON

- Continue excavating two triceratops skulls.
- Provide fossils and funding in support of the Eastern Wyoming Nature Center.
- Prospect for new sites in 2025.
- Dedicate the new Todd Hoelmer Fossil Prep Lab



These expeditions are a collaboration between three partner science centers in three states. Together, we aim to bring people together to enjoy a hands-on experience digging dinosaurs, which will help build paleontology exhibits in all three sites.



# The **CREW**

33 crewmembers joined us in Lusk, Wyoming and headed to the Petersen Ranch, where our triceratops excavation sites were waiting for us, as well as plenty of land to explore for new fossils.

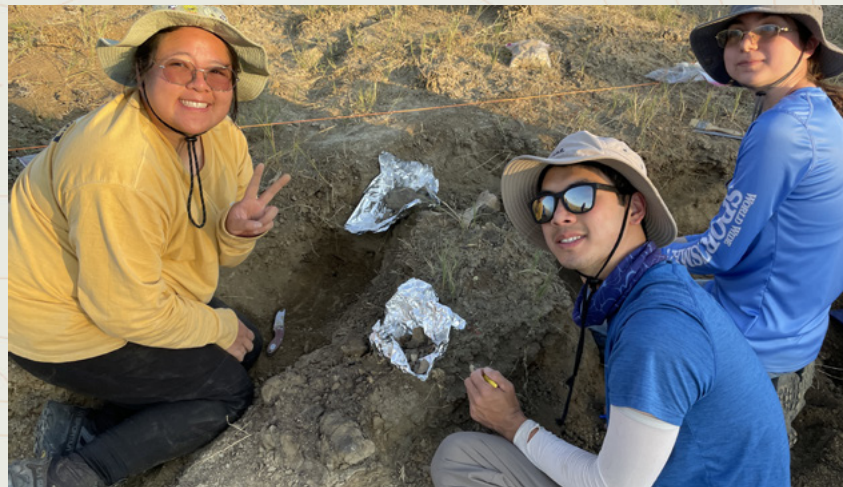


**CREW 1** - July 1-6



**CREW 2** - July 8-13







## **ABE'S TYRANNOSAURUS REX TOOTH!**

Abe Jimenez, a crewmember from Santa Paula, CA, found a T-rex tooth within the first hour of his first day in Wyoming. This tooth is from the pre-dentary, positioned in the front of the mouth.















Rob Lowrey with a camp visitor.





Gloria and Miguel explore a gully filled with new sandstone outcrops.





Isaiah looking over Lance Creek, the namesake for the 65 m.y.a. Lance Formation.

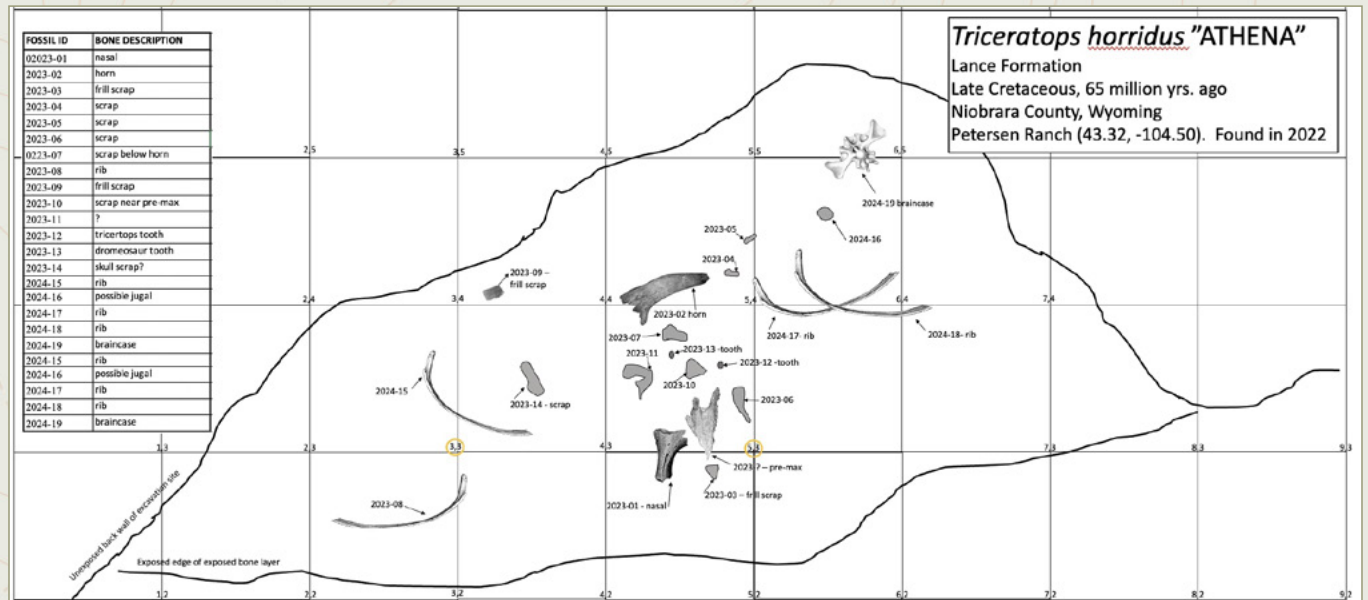
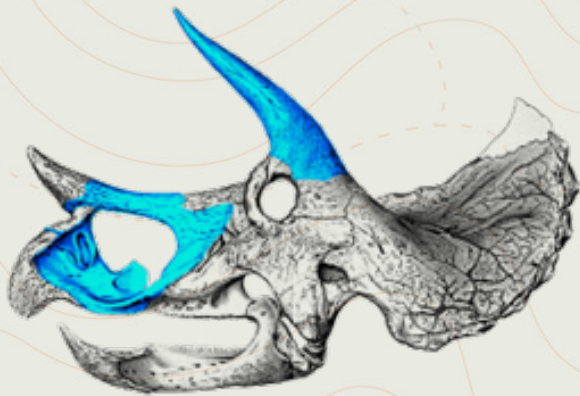




If you don't like the weather, wait 10 minutes.

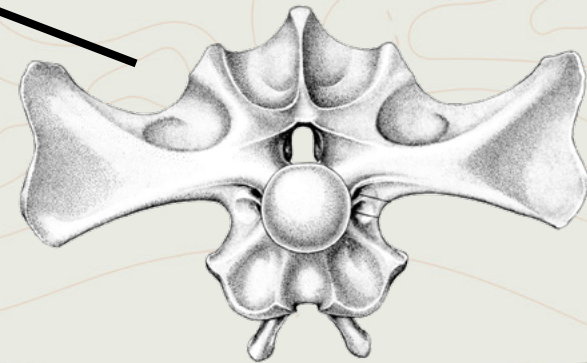


# GOAL 1: CONTINUE EXCAVATING TWO TRICERATOPS SKULLS.



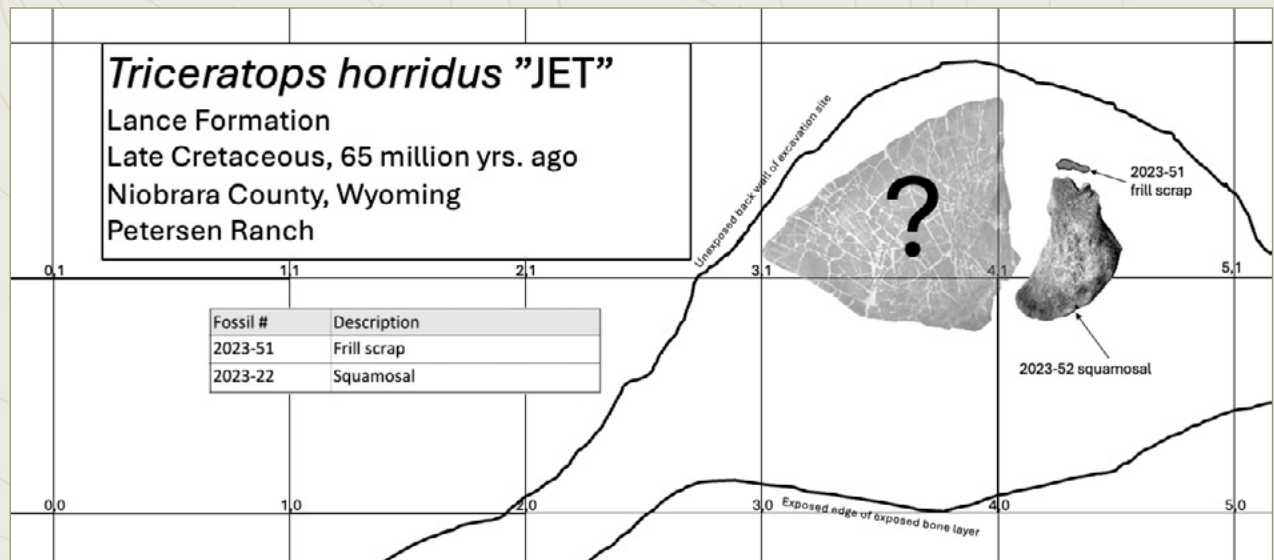
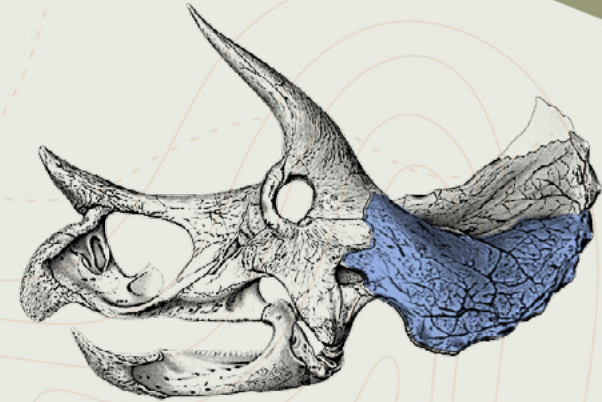
"Athena" for Santa Paula! Discovered in 2022, this partial skull is disarticulated and includes a few scattered ribs. The last bone removed this summer was the complete braincase.







**“JET” for Santa Paula!** Also found in 2022, this site consists primarily of pieces of frill. The squamosal has been removed and a larger piece of the parietal remains in the ground and fused nasals.



Crew exposing additional frill bones from the JET site.



## **GOAL 2:** PROVIDE FOSSILS AND FUNDING IN SUPPORT OF THE EASTERN WYOMING NATURE CENTER.

In 2018 an 8000 sq. ft. building was acquired in Lusk, Wyoming with the intent to establish the Eastern Wyoming Nature Center. The mission of the organization is:

**“To discover, preserve and celebrate the natural resources of Eastern Wyoming.”**



With fossils and funding we will turn this...



...into this.



## **The nature center got a new roof!**

We were successful in 2023/2024 to raise the \$45,000 needed to repair the entire roof. Now we can move more fossils in!





## **A t-rex skull cast moves in!**

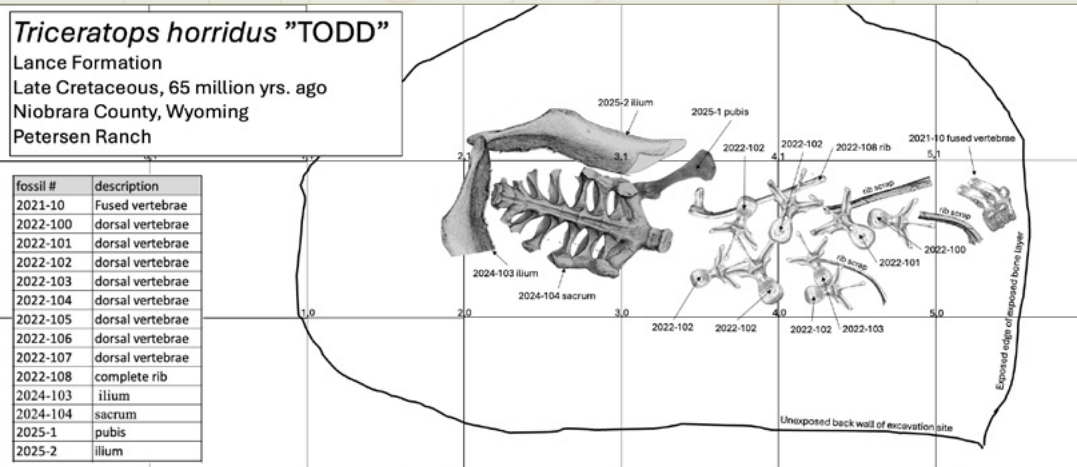


Installed by volunteers Jesse Rangel and Andrew Darling.



## A partial triceratops renamed "TODD" brought to the nature center

We finished a partial triceratops site that had been found years ago and slowly has been excavated. It contained several vertebrae and a pelvis. The sacrum was excavated and transported to the nature center in Lusk.

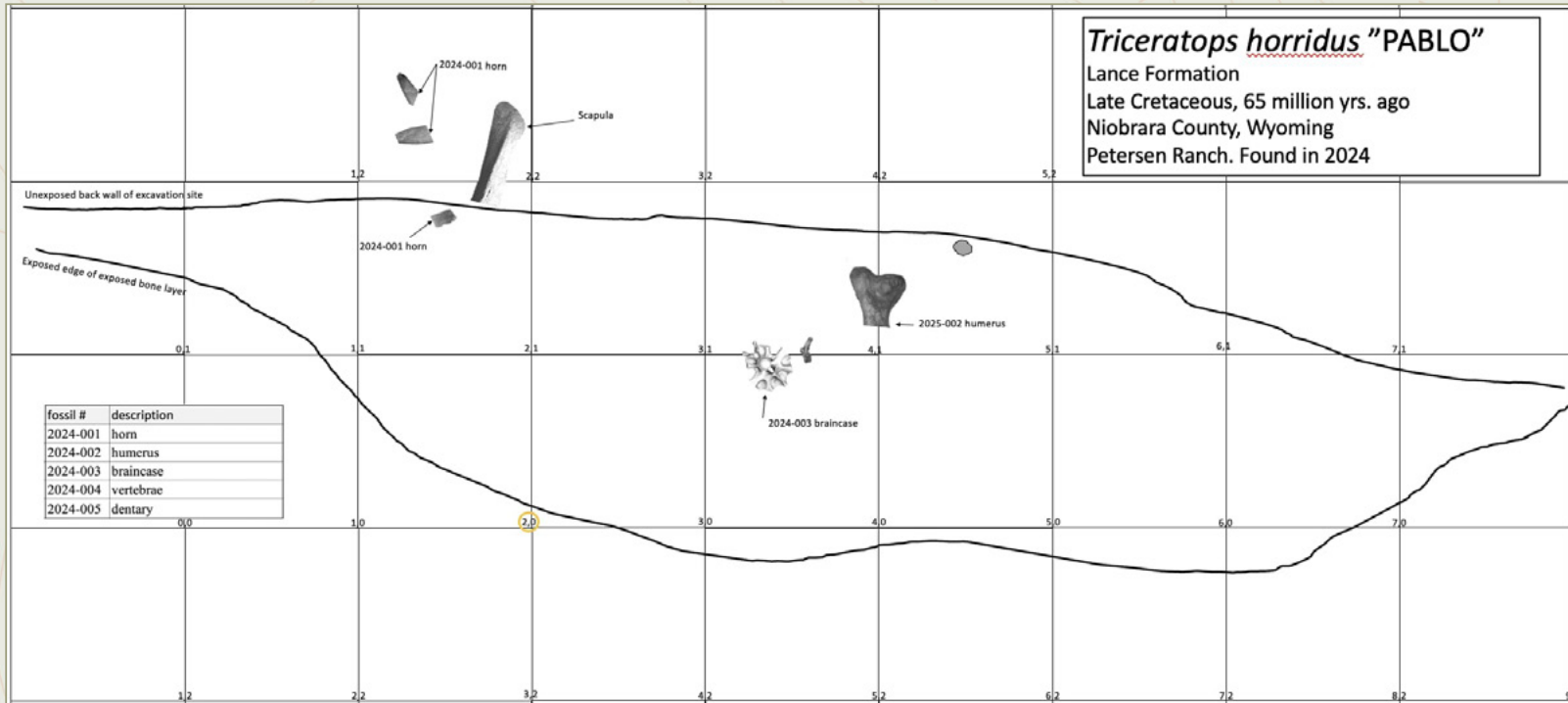




# GOAL 3: PROSPECT FOR NEW SITES IN 2025

With 7,000 acres of private land to search and 33 crewmembers eager to find something new, we made plenty of great discoveries.

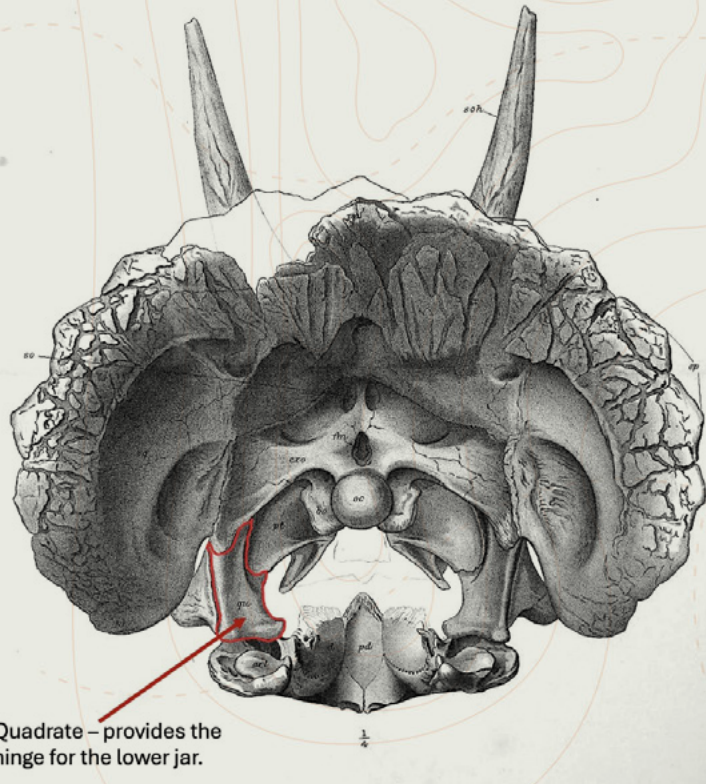
**A new triceratops site!** Crewmember Paul Hansen discovered a triceratops horn and humerus lying on a mound of shale and only a few meters apart. Within a few minutes of scratching the surface, we found a rib, braincase, fragment of a lower jaw and a shoulder blade.





## Another partial triceratops skull

Crewmembers Pam and John discovered several triceratops skull bones less than a kilometer from camp, including large pieces of frill and a complete quadrate. It's the bone in the back of the skull that creates the hinge for the lower jaw. There could be more, therefore this is high on our list in 2025 to excavate further.



Quadrate – provides the hinge for the lower jar.





## **GOAL 4:** DEDICATE THE NEW TODD HOELMER FOSSIL PREP LAB

Paleontologist Todd Hoelmer was a founding board member of the Eastern Wyoming Nature Center and operated a fossil preparation lab in the center's building before he passed away in early 2024. His lab and machine shop will be maintained in order to train future paleontologist and build exhibits.



Todd Hoelmer preparing and restoring fossils for the Eastern Wyoming Nature Center.



Dedication ceremony July 24, 2024.





Preparation lab



Restoration and painting



## **ACKNOWLEDGEMENTS:**

We are grateful to the Petersen family for allowing our expedition crew to roam their ranch since 2006!

We couldn't have accomplished our goals this summer without the help of volunteers that make it all possible:

Deb, Jesse, Justin, Andrew







## LOOKING FORWARD TO 2025!

There's plenty of work for next year, as we've got several active triceratops sites now! July 1-6 or 8-13 are the dates for either crew 1 or 2. We hope you'll consider joining us next year!

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