

Fossils In North Dakota

FIND is a newsletter dedicated to helping young readers (in age or spirit) express their love of fossils and paleontology, and to help them learn more about the world under their feet. Each issue will be broken up into sections including Feature Fossils, Travel Destinations, Reader Art, Ask Mr. Lizard, and more!

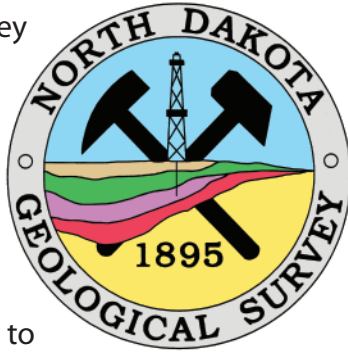
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2021 Public Fossil Digs Review

Another season of fossil digging with the public is now behind us! Can you believe we've been at it for 22 years? This year, like 2020, we reduced the total number of participants per day to help reduce the chance of spreading COVID-19. We also continued daily sanitation of the vehicles and tools. All of our staff was vaccinated, we required the wearing of masks while in the vans, and we social distanced as much as we could. Joining us as intern this year was Alyssa Schiwal.



Left to right: Trissa Ford, Becky Barnes, Alyssa Schiwal, Jeff Person

Medora: June 17-24

Medora started off with a bang - the very first day we began uncovering part of a *Champsosaurus* jaw with teeth. The days varied between blistering heat, and massive gusting winds. Mother Nature decided to completely skip our normal June temperatures of 70-80F, and went right up to 103F!



The beginnings of the champsosaur jaw, juuuust peeking out.

As usual we found many coprolites in all shapes and sizes. We also came across another tree "volcano" like a couple years ago. A tree stump had been buried, and the fossil layer ran right up to and around the stump, then crumpled and collapsed over time. As careful brushing continued, we also located more large footprints (crocodile or champsosaur), and a pint-sized softshell turtle carapace (upper shell).



The tree "volcano" turned into quite the pit, where material sank down into the void left by the tree.



Those little pits are the surface texture on a softshell turtle!

Bismarck: June 3 - July 30

Why was Bismarck so long this year? We needed to expand temporarily to accommodate rollover registrations from 2020. Why don't we always have more time there, since so many people want to dig dinosaurs? We wouldn't have anywhere to put all the jackets to be prepared! Our field storage is full, our cabinets are full - we have yet-to-be-prepared fossils stuffed in every drawer and corner we can. Ufda!

While we didn't have any monster jackets that had to be hauled out with heavy equipment this year, we still pulled out 64 jackets of varying sizes. The public uncovered *Edmontosaurus* skull elements, foot bones, ribs, and vertebrae, some *Triceratops* frill chunks and ribs, *Tyrannosaurus* teeth, a couple of gorgeous crocodile osteoderms (skin armor), many coalified logs, and amber.



Above: One crocodile osteoderm, cracked in two, with the classic pitted Swiss-cheese surface.

Below: Partial juvenile *Edmontosaurus* humerus, missing the elbow-end. It's just...gone. No powder, no fragments - looks like it was broken or chomped off. Ouch!



Above: Crocodile femur - small but nearly complete.

Below: How can you tell if you've made a good "bench"? If you can nap on it, and not fall off - it's a good bench. If it's too angled and you slide off - it's not a good bench! Intern Alyssa Schiwal and Friends of NDGS Paleo board member Katy Brooke test out the bench they worked so hard on.



Mule deer



Rock wren

Above: Volunteer, participant, and photographer Dale Heinert captured some great shots of visitors that came to the site. The mule deer was so used to us being on site, she would just wander right by and look at us.

Below: Becky snagged and relocated a toad that thought our muddy rain-soaked puddles were THE place to be.



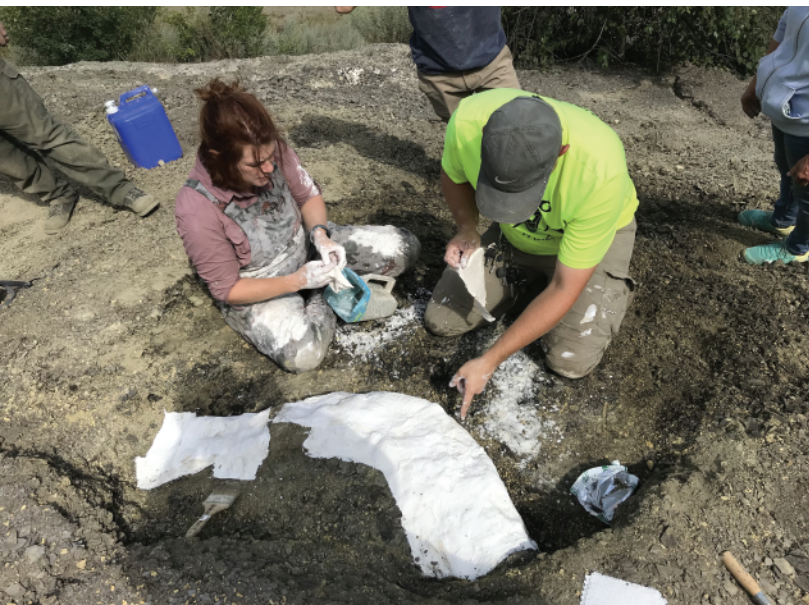
Pembina Gorge: August 6-15

The gorge varied in weather like Medora did - blistering heat, pouring rain, gusts of wind... it just couldn't make up its mind. Before the dig began, our staff cleared off a walking path for people to more easily traverse the slippery roadcut heights. About 20' into clearing, Becky's shovel went THUD... and we all know THUD isn't a good sound. Clearing away the shale, we found a pocket of mosasaur and fish bones. Well! That meant we needed to split our forces. Clint and his group of diggers would head towards the fish beds to the south, and Becky and her group would remain near the start of the trail to work out the pocket of bones.



Above: Longtime participant Edythe Nelsen (left) and intern Alyssa Schiwal (right) work on excavating a fish jaw.

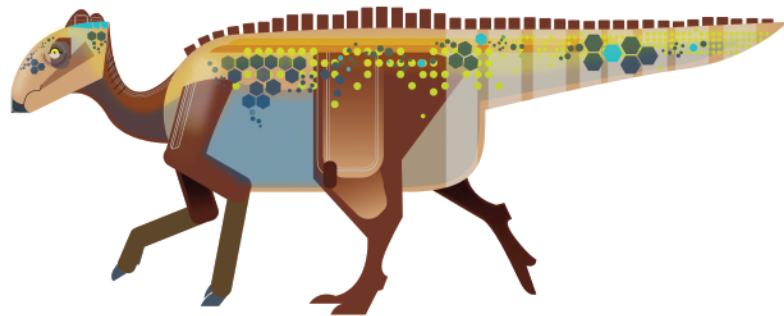
Below: Katy Brooke (left) and Dr. Clint Boyd (right) work on stabilizing the outside edge of what turned out to be a BIG FISH. One of the largest we've recovered from the site! It was wrapped around in a giant circle - a fish donut, if you will - with its head and tail overlapping each other. Each vertebra was slightly smaller than a can of tuna!



Above: fish jaw with teeth pulled on the last day. Where's the rest of the fish? Who knows!

New exhibit for Dakota the Dinomummy!

It's been delayed by weather, by COVID, by other exhibits - but now it's time to get Dakota the Dinomummy back on display. Join us Saturday October 16th at the North Dakota Heritage Center and State Museum in Bismarck for talks, tours, behind-the-scenes visits, kids activities, and more. Maybe you'll even spot some of our super serious staff wandering around in dinosaur costumes?



Top: design by Jessica Rockeman - available at the Heritage Center gift shop on items!

Bottom: Just a peek at some of the new case artwork, done by Natee Puttapipat. Visit the exhibit come October 16th to see the whole thing.