

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!

Summer 2020 No. 37

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Next Issue: September 2020

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<https://www.dmr.nd.gov/ndfossil/kids/>



Chatting with NDGS Paleo!

By the time March hit with Covid-19 news, we knew it was only a matter of time before North Dakota followed other states and cancelled in-person instruction in schools. All the NDGS paleo staff (Dr. Clint Boyd, Jeff Person, and Becky Barnes) have young children at home, and knew other parents would be adjusting to the chaos that would become the new normal. Schools were scrambling to convert their in-person teaching styles to fit an online format – and kids would be restless in the interim.

Another science program was started two years ago, called Skype-A-Scientist by Dr. Sarah McAnulty, which connects classrooms across the world with different scientists (biologists, geologists, chemists, mathematicians,

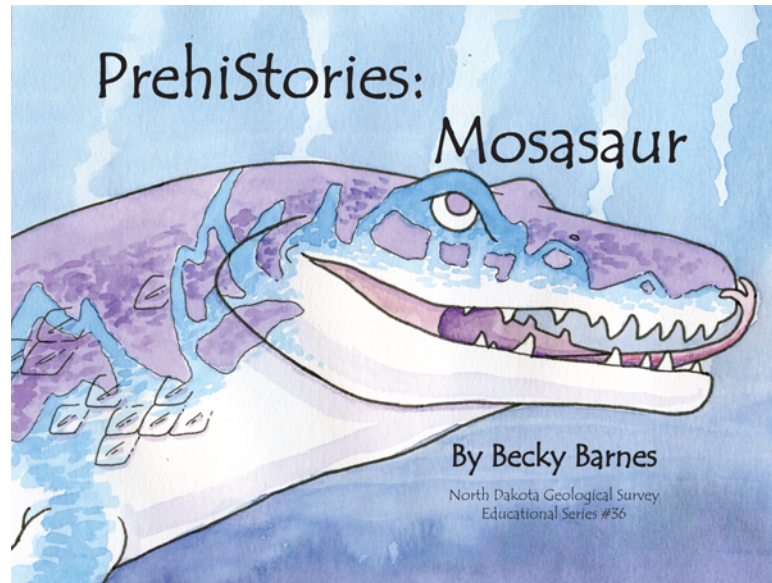


Becky Barnes hosts one of the first episodes of Chatting with NDGS Paleo in March.

physicists, and more). With the onset of schools closing all over, they opened up their program to also include families stuck at home.

This was a brilliant idea! An hour of amazing science could be a spot of normalcy in these crazy times. What if we crafted a North Dakota version, where we (paleo) would host a short presentation, followed by a question and answer session. Each day we could present on an interesting topic, and then compile the video (minus any bloopers) into an archived video for later watching. Any special names or terms that were discussed in the talk could be added during editing.

Monday, March 16th hit, and schools were now closed. I brought the idea to Clint Boyd, and we began compiling a list of topics. We had just finished the mosasaur installation at the Walhalla Public Library, in Walhalla, ND. Part of that event included creating a kids' book about mosasaurs (Barnes, 2020). It would be an easy first topic – mosasaurs, and a book reading.



Our first PrehiStories! The second one, about Dakota the dinomummy is almost done!

Now what platform should we use for the presentation distribution? We had run into problems with Skype in the past, and Facetime was only useful for Apple users. We already had the basic ZOOM software for backups during our classroom chat sessions, so decided to go with that. We updated our Social Media (Facebook and Twitter) in a hurry, announcing we would be holding a paleo chat on that Wednesday (March 18th) at 10 a.m. Central. This would be a nice mid-morning break for families at home, and it would also keep away from the timeframe Skype-A-Scientist was holding their chats – so if watchers wanted to, they could get two doses of science in their day!

Our first chat went well – so well the Bismarck Tribune came by for a photoshoot the following day, when we were discussing coprolites. We quickly fell into a routine. Each morning we would check our topic, and raid collections for samples of whatever we were talking about that day. Mosasaurs, coprolites, ammonites, saber-toothed cats, amber – it was going so well! We decided to change how we were presenting a little. We had previously been using the ZOOM meeting function, which had good and bad aspects. It was great to have instant visual feedback from our audiences – to see them watching, what they were confused about, or even them showing us their paleo projects they had made at home. The downsides were that if microphones were left on, it caused extra noise during our video edits. Or a kid discovers in the meeting function they can draw on our screen, or accidentally share their screen with us (Minecraft popped up on one occasion!). For the most part the audience self-policed, and after the first couple sessions everyone knew the drill. Log in, microphones off.

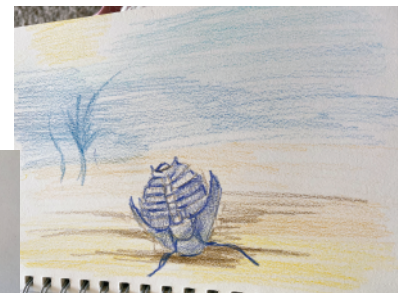
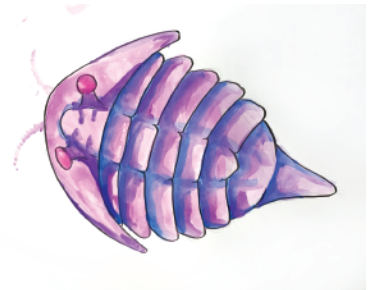
Then the news came Tuesday March 24th, the Heritage Center – home of our Johnsrud Paleontology Laboratory and paleontology offices – would be closing to staff as well as the public. We had one more day of presenting (topic = hadrosaurs [duck-billed dinosaurs]) to gather our things, tear down our computers, and set up at home. No more collections raiding, which meant it was time to improvise again. Jeff Person was itching to talk about teeth, and we already had a guest speaker, Dr. Lydia Tackett of NDSU, lined up to talk that Friday about North Dakota's State Fossil: *Teredo*-bored petrified wood.

We had time to plan our next course of action – it was time to bring in more guest speakers. The great thing about paleontologists is they tend to know a copious amount of information about their current research subject, or favorite fossils. Clint reached out to a bunch of his contacts and colleagues, and speedily built a list of presenters. Each weekday meant a new presenter and topic, and a new video to archive on YouTube. Tyrannosaurs, horses, dinosaur brains, bone-crushing dogs, and so many more topics to explore. April 1st, we took a slightly different turn with April Fools' Day, and I set up a Bob Ross style "The Joy of Paleo" painting session while teaching about trilobites. Happy little crinoids!



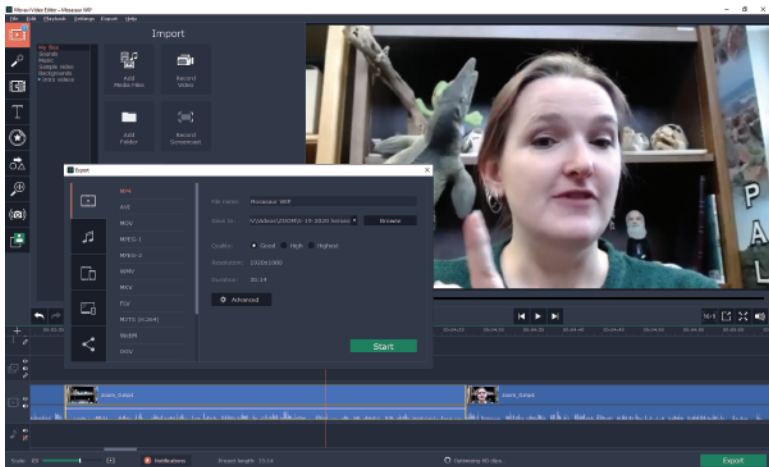
A young viewer watches the "Ammonite!" episode of Chatting with NDGS Paleo while working on her own fossil excavation.

In order to curtail some of the disruptions, we moved to the ZOOM webinar platform. We would no longer get to see the audience's smiling faces – but microphones were automatically off, and there was no screen sharing except from presenters (Clint, Jeff, myself, or any guest speaker). It worked beautifully.



 Tuesday March 31 <i>Dunkleosteus</i>	 Wednesday April 1 The Joy of Paleo	 Thursday April 2 <i>Dinosaur National Monument</i>
 Friday April 3 Dinosaur Brains	 Monday April 6 <i>Tyrannosaurus</i>	 Tuesday April 7 <i>Parasaurolophus</i>
 Wednesday April 8 Bite Marks	 Thursday April 9 Horses	 Monday April 13 <i>Oryctodromeus</i>
 Tuesday April 14 Camel Evolution	 Wednesday April 15 Histology	 Thursday April 16 Plants (Dino-age)
 Friday April 17 Bone-crushing Dogs	...more to come!	

As schools began to ramp up their homeschooling directives, families had less time to tune in to these daily chats while they were broadcasting live, but were still able to go back to YouTube to watch the posted videos from each day. Once the immediate need for a science break began to diminish, we reduced our chats to twice a week (Tuesdays and Thursdays), until the school year ended and summer break began. Even though these daily chats ended once school was out, the platform is still there for future talks. Now that we have experience with what works, what doesn't, and what can be done better, any future chats or presentations we do can be improved. Additionally, the videos we have already made and posted are available for future use by teachers and other educators. They can be found at www.youtube.com/c/NDGSPaleo.



Each episode took many hours to splice and add text definitions to - but it was worth it!

2020 Dig Season Updates

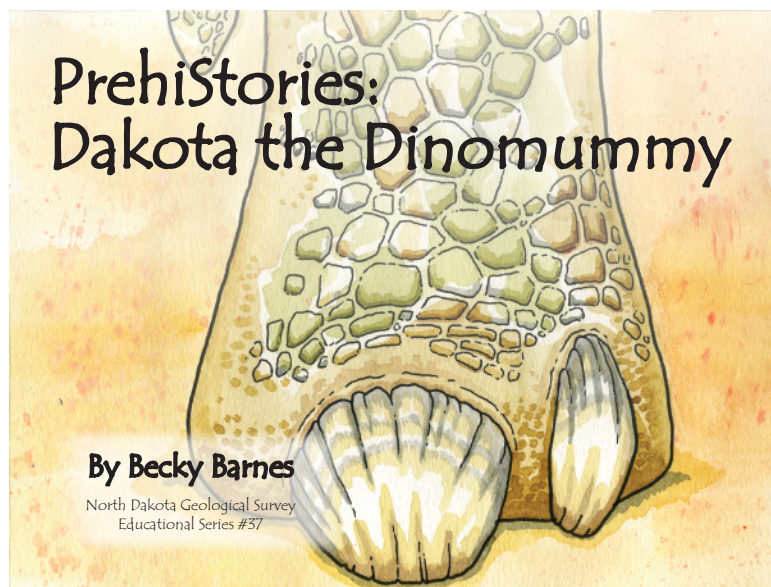
This dig season will have to be different from past dig seasons. We know this year won't be as hands-on as previous years, but we'll do our best to keep it fun and educational.

We're increasing the number of vans driving out to a site on days with high numbers of people. This will give a little more space in between passengers. The van drivers will be wearing masks, and passengers are welcome to as well during the drive - they won't be provided however, so bring your own! Wearing a mask on site would be too hard for people to do - it might be hot, and you need to keep drinking water. So instead, make sure to be conscious of social distancing. Be courteous to other groups on the site, and keep your distance.

What does this mean for fossil finds? We'll need everyone to be a little more patient this year. If someone finds something cool - please wait for those diggers to move away before crowding around to see the fossil. We will make sure everyone has a chance to see important finds. Sadly this also means that plastering will need to be done by the staff alone. You'll just have to wait until next year to get your hands dirty with plaster.

Every digger will be assigned a numbered set of tools, that will be returned at the end of the dig, and sanitized. If you want work gloves (gardening gloves are perfectly fine) make sure to bring your own pair with. We can't provide gloves this year - we won't have access daily to a laundry facility for cleaning.

We will make sure to keep our Social Media up-to-date on the coolest finds this summer - so if you've had to cancel your dig, or postpone until next year, you can follow along with our adventures online. Remember - on Facebook, Instagram, and Twitter, we're @NDGSPaleo



Coming soon! Our next PrehiStories, featuring Dakota the dinomummy. Our new exhibit will be installed Fall 2020 featuring a touchable skin cast, plus our latest scientific finds about this amazing discovery.