

Southern Maryland Rock and Mineral Club



Rock Talk



November-December, 2018

Next Meeting:
December 15, 2018 @ 3:00 PM

Program
Christmas Party
SMRMC Participants

Refreshments
Pot Luck

Clearwater Nature Center, 11000 Thrift Road, Clinton, MD.

*Southern Maryland
Rock and Mineral
Club*



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*December 16, 2018
3:00pm-6:00pm*

*Clearwater Nature Center
Meeting room
11400 Thrift Road
Clinton, MD 20735
Please bring a dish to share*

*Also, gift for the Chinese Gift Exchange!
(The gift should be \$10.00 or less and Rock related do not forget to wrap it!)*

NOVEMBER MINUTES

Submitted by Cheryl Reese

DATE: Meeting was called to order at 7:05 by Joe Davis, Vice President/Membership.

VISITORS/NEW MEMBERS:

None

MEMBERSHIP: 66 members. Joe asked to check attendance sheet to see if your membership is up for renewal.

NEWSLETTER: Polly will send September/October minutes to Tim. Tim will be combining the November/December newsletters

MEETING MINUTES: Polly will send September/October minutes to Tim.

TREASURER: Dave sent personal check for our liability insurance to eastern federation and had to pay additional \$24.77 for overnight delivery. Motion was made and seconded to reimburse him for delivery fee and he will wait for now to receive the additional money from NCPPC.

FIELD TRIPS: December 1 Vulcan Manassas Quarry. 2 members signed up. Possible last minute trips for fossil collection depending on the tides this winter.

PROGRAMS: Christmas Party December 16th 3-6pm at the nature center. Pot luck, bring a dish to share and a rock/club related gift for the gift exchange.

November's program was "Our other hobbies"

Members participating:

Joe & Paula - Pysanky eggs

Harry - metal detecting and civil war relics

Cheryl - talked about musical instruments she plays

Dave - showed colonial artifacts from the 1700's that he found while gardening on his property.

Kim - showed how she teaches robotics coding to her 4th graders

WEBSITE: no report

OLD BUSINESS: Election of officers for 2019 motion made and seconded to elect the following :

President: Sondra Fielder

VP/Membership: Joe Davis

Programs: Carole Raucheisen

Secretary: Cheryl Reese

Field trips: Dave Lines

Treasurer: Dave Lines

Newsletter: Timothy Foard

Webmaster: Bob Davidson

Two Year terms were discussed but decision to leave as one year for now.

NEW BUSINESS: An email was received from CMM about 9th circuit court decision concerning fossil collection mainly in Montana. Possibly affecting other states in

future. Forwarded to Dave and he said he would distribute to members for their information. Auction January 19th 2019 Rockville Senior Center (see flyer)

ADJOURNED: meeting adjourned at 7:40 pm, followed by refreshments from Polly Zimmerman and then the program

ITEMS WANTED/FOR SALE

For Sale – Virginia unakite slabs (approx ¼ inch thick) – \$0.50 per square inch (this is half off regular price). Call Dave (240) 427-7062.

For Sale – SMRMC Only 4 remaining t-shirts for sale: size small (1) at \$9.00; and large (3), also at \$9.00 each Contact Tina @ htleague@comcast.net

Rocks, Minerals, and Fossils in the News

Rare dinosaur fossil discovered on internet after disappearing for decades

By [Camron Slessor](#)



PHOTO: The Kakuru kujani is the only dinosaur to have left fossils in SA. (Supplied: South Australian Museum)

<https://www.abc.net.au/news/2018-12-03/rare-dinosaur-fossil-found-in-sa-after-disappearing-for-45-years/10575208>

A rare fossil believed to be from South Australia's only known dinosaur is shedding new light on the turkey-sized creature, with the opalised toe bone resurfacing on the internet after disappearing for almost five decades.

Key points:

- The fossilised dinosaur toe bone from outback SA was spotted in an Adelaide opal shop in the 1970s
- The bone was sold and disappeared for almost 50 years
- The South Australian Museum has now added the "incredibly rare" find to its collection

The fossil is one of only three dinosaur bones known to have been found in South Australia, all of which are from a species called Kakuru kujani.

The fossilized bones were originally found in South Australia's outback in sediments from the early Cretaceous period, about 110 million years ago.

A fossil expert at the South Australian Museum said the Kakuru appeared to have been a small carnivorous dinosaur.

"These are the only bones of this dinosaur known anywhere in the world," said Ben McHenry, the museum's senior collections manager for earth sciences.

"It was probably something about the size of a turkey, which I suppose isn't very exciting for all the Jurassic Park fans out there, but the truth of the matter is that most dinosaurs were actually small animals."



PHOTO: The fossil specimen is barely five centimetres in length. (Supplied: Ashleigh Glynn)

The fossil will officially be unveiled at the museum later today.

"It's a toe bone, it's about five centimetres long," Mr McHenry said.

"Australia is the only place in the world where you find opalised fossils... the bones of a dinosaur have been replaced by precious opal."

The history behind the state's only known dinosaur dates back to a discovery almost half a century ago in the centre of Adelaide.

An opalised toe bone of the dinosaur was dug up in Andamooka in the early 1970s and was spotted by Neville Pledge — the museum's then-curator of fossils.

He noticed the toe bone in 1973 in an opal shop in Hindley Street in the Adelaide CBD.

Mr Pledge is now an honorary researcher at the South Australian Museum and said he was fortunate to be able to take photos, measurements and make a few plaster casts of the toe bone — but from there, the fossil went missing.

"Unfortunately, not long after I saw the bone it was sold and disappeared from public knowledge for 45 years," Mr Pledge said.

But in an intriguing twist, the bone was spotted for sale on the internet by Coober Pedy resident Joy Kloester in April this year.

Ms Kloester immediately purchased the toe bone and offered it to the museum.

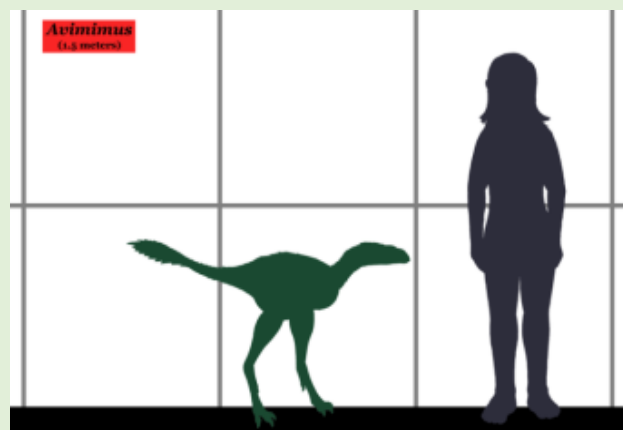


PHOTO: The Kakuru kujani is believed to have been little more than a metre in length (Supplied: South Australian Museum)

Mr McHenry said he acted quickly to acquire the rare specimen and said the find was so special because dinosaur bones were "incredibly rare" in the state.

"The reason why we don't have dinosaur bones is because when the dinosaurs were stomping around on the land, most of South Australia was under water," he said.

"The rocks which now form the Great Artesian Basin were once an inland sea.

"These are the rock formations that host the opal at Andamooka and at Coober Pedy... 110 million years ago we were actually still joined to Antarctica as part of the supercontinent Gondwana and we were right down near the South Pole."

The fossil toe bone will be on display in the South Australian Museum's opal fossil gallery from today.

Early Mammals Were Thought to Be Small and Unseen in the Age of Dinosaurs. An Elephant-Sized Fossil Complicates That Story

By Jason Daley

At a time when proto-mammals and other creatures were getting smaller, this dicynodont bulked up with the thunder lizards

https://www.smithsonianmag.com/smart-news/elephant-size-mammal-cousin-mingled-dinosaurs-180970886/?utm_source=smithsoniandaily&utm_medium=email&utm_campaign=&spMailingID=37577210&spUserID=NzU3Njc5NDkyMTYS1&spJobID=1402862834&spReportId=MTQwMjg2MjgzNAS2

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The newly discovered *Lisowicia bojani* reveals dicynodonts - predecessors of modern mammals - grew to colossal sizes (Karolina Suchan-Okulska)

During the age of the dinosaurs, the story often told is that the thunder lizards ruled the earth, growing to the size of cars and busses while the ancestors of mammals and other animals were tiny little insect-eating fuzzballs, scurrying around during the night to avoid the reptilian teeth. But the fossil of an African elephant-sized creature found in southern Poland upends that narrative, reports Gretchen Vogel at *Science* magazine.

The beast, named *Lisowicia bojani*, looked something like a cross between rhinoceros and a turtle, weighing in at nine tons. The creature is a dicynodont, one of the first groups of animals to eat plants. It's also part of a broader group of creatures called synapsids, which includes the direct ancestors of mammals, making it something of a cousin to the earliest mammal ancestors, or proto-mammals. The most intriguing thing about the creature, however, is that it dates to the Late Triassic period about 201 to 240 million years ago when dinosaurs first began their reign. It was believed that by that period most other creatures had shrunk in size to hide from the giants, including dicynodonts, which maxed out at the size of a dog, but *L. bojani* shows

that's not the case. The research appears in the journal *Science*.

Stephen Brusatte, a vertebrate paleontologist at the University of Edinburgh not involved in the study, tells George Dvorsky at *Gizmodo* that the find is a big deal.

“Before these giant bones were discovered, you would have been called crazy if you ever suggested there were giant, elephant-sized mammal cousins living alongside some of the very first dinosaurs,” he says. “We used to think that after the end-Permian extinction [252 million years ago], when some 90-95 percent of all species went extinct, mammals and their relatives retreated to the shadows while dinosaurs rose up and grew to enormous sizes. That's the story I tell my students in my lectures. But this new discovery throws a wrench into that simple tale.”

Since 2005, researchers have been pulling fossil bones out of a clay pit in Lisowice, Poland, and in 2008, they found a 22-inch dicynodont femur, which was their first hints that big animals were in the pit. The latest find included a considerably larger 31-inch femur, one of 1,000 bones uncovered during 11 years of fieldwork at the site. In total, reports John Wenz at *Popular Mechanics*, the team found about 70 percent of the animal's bones, giving them incredible insight into the beast.

Fossils found along with the 8.5-foot tall, 15-foot-long dicynodont indicate that it likely lived on a wide, flat riverside eating seed-ferns and early tree-like plants called *Brachyphyllum*. The team also found the fossils of tiny shrew-like proto-mammals that would have scurried below its feet and fossils from predatory dinosaurs in the same location.

The fossil raises lots of questions, and researchers aren't even sure if the animal they found is a fully grown since the bones didn't show signs of slowing growth, meaning there could be even larger specimen out there. It raises questions about why animals in this period grew so ginormous, and why the dinos eventually won out. “The discovery of *Lisowicia* changes our ideas about the latest history of dicynodonts, mammal Triassic relatives,” co-author Tomasz Sulej of the Polish Academy of Sciences says in a press release. “It also raises far more questions about what really make them and dinosaurs so large.”

One prevailing theory is that sauropods and other huge dinosaurs evolved their massive size to avoid getting eaten by carnivorous predators, something that may have been at play with *L. bojani* as well, reports Vogel at *Science*. The team hopes to look next in Russia and Ukraine to see if there is more evidence that other massive dicynodonts once walked the earth.

Member's Finds

Not exactly a "find", but the 2018 trophy plaque from the World Championship Quartz Crystal Dig at Mt. Ida, Arkansas was awarded to the 13 SMRMC members who participated as a result of their quartz finds.



Collected any interesting specimens? Send a photo or two to the editor at bmorebugman@yahoo.com for inclusion in the next issue of Rock Talk.

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The Gem Lapidary and Mineral Society of Montgomery County



We're having an **AUCTION!**

Vast quantity of specimens from the estate of a longtime collection -- **many museum quality minerals**, large and small cabinet sized from all over the world, including some closed locations. Some specimens are in their original wrapping. ***Open to all – Please join us.***

Saturday January 19, 2019. 9:00am auction preview 10:00am live auction starts
note: payment to be made in cash or credit card

Rockville Senior Center, 1150 Carnation Dr., Rockville MD 20850

This is more material from the collection seen at our April 2018 Auction that was so popular



Additional information and pictures will be posted on GLMSMC.com and on our FaceBook page as we get closer to the auction date. We expect to auction hundreds of specimens, many in bulk lots.

**The Southern Maryland Rock and Mineral
Club**

**Meetings take place on the 4th Tuesday of
each month at 7:00pm**

**Clearwater Nature Center, 11000 Thrift
Road, Clinton, MD.**

For More information, call:

(301) 297-4575

We're on the web:

