

# Southern Maryland Rock and Mineral Club



## Rock Talk



**October, 2017**

**Next Meeting:  
September 26, 2017 @ 7:00 PM**

**Program**  
Gold!  
Presentation by Charlie Zellers

**Refreshments**  
Polly Zimmerman

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

### An update on the Morefield Mine

By Dave Lines



Rich Simcsak and I drove by there on July 29th and we were astounded at the HUGE changes wrought by Martin Marietta (MM). The former road to the Morefield from Butler Road was barely recognizable --- the large quartz boulder that graced the entrance at the turnoff from the highway is still there --- and that is all. All the trees are gone. Sam told me this past February that MM was removing 65 feet of soil overburden above the 45 acre tract (located behind the Morefield) that MM planned to mine for crushed rock. Apparently, MM put all that overburden in front of the Morefield. There is a huge pile of red dirt 30 feet high and extending down Butler Road at least a half mile and surrounded by a tall chainlink fence topped

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with barbed wire. The dirt pile extends back from the road several hundred yards. There many "Keep Out" and "No Trespassing" signs. We drove back where the old road to the mine used to be --- it was paved with 3"-4" crushed rock. At the beginning of the Morefield property the road was blocked with a chain across it. There was a large area of MM equipment --- at least two 100 (?) ton haul trucks, pick-up trucks, a large (5,000 gallon ?) diesel fuel tank, and various other excavating machinery. Later on our way home we noticed a large billboard sized sign on U.S. Route 360 just past Butler Road that proclaimed the new entrance to the Martin Marietta Amelia Plant. The changes to the Morefield entry road are significant and certainly will affect the former serenity that made the Morefield such a wonderful place.



I had initially registered to attend the Paul Desautels Micromount Symposium in Baltimore to find out more about the status of the Morefield Mine, which was one of the presentations given on Saturday (October 14), but my entire weekend was derailed by a last-minute work request. I checked the website in early October, and it mentioned this year being close to the public to determine the extent of the pegmatite and that the adjacent

property was being developed as a quarry, but it sounded like business as usual despite of the activities at the site—Tim Foard

## SEPTEMBER MINUTES

Submitted by Rick Simcsak

**DATE:** Meeting was called to order at 7:10 p.m. by Rich Simcsak, Past President on the steps of the Nature Center (Nature Center building locked awaiting someone from staff to open it).

### VISITORS/NEW MEMBERS:

Patricia Armstrong Lewis of the Lapidary Club and second time attendee Katie Martin. Prior to tonight's meeting the Sherkow family (Asher, Emily and their two sons, Noah and Isaac) joined the club and attended the Willis Mountain field trip.

**MEMBERSHIP:** Polly, Membership Vice President (absent). 52 members paid to date.

**NEWSLETTER:** Tim Foard, Editor -- Newsletter was sent out, but some report the unfortunate situation of not receiving the letter. If your newsletter was missing, please contact Tim Foard at [bmorebugman@yahoo.com](mailto:bmorebugman@yahoo.com)

**MEETING MINUTES:** Dave, Secretary (absent) --- Minutes for July and August meetings approved.

**TREASURER:** Dave, Treasurer (absent, but written report submitted) ---

Letters of acknowledgement received from AFMS and EFMLS for our donation to the AFMS Scholarship Foundation in memory of Monty Reese.

**FIELD TRIPS:** Dave, Field Trip Vice President (absent, but written report submitted)

A. Recent past trips: 8-26-17 ---- Joint trip with other local clubs to Vulcan Manassas Quarry, Manassas, VA for various trap rock quarry associated minerals --- 10 members attended. Many minerals including prehnite, apophyllite, stilbite, stellerite and calcite were found. The most interesting mineral found was “mordenite” --- a zeolite in small round balls of very delicate crystals --- located inside small vugs in huge boulders; 9-23-17 - -- Willis Mountain, Dillwyn, VA --- 12 members attended including 4 brand new members who enjoyed the site and the thrill of discovery. Following minerals found: iridescent hematite, kyanite crystals (grey, blue and clear), quartz, pyrite in kyanite and quartz, rutiled biotite mica (pinkish red colored) and malachite in white quartz.

B. Upcoming trips: No *local* trips currently scheduled for October; 10/13&14/2017 --- 30<sup>th</sup> Annual World Championship Quartz Crystal Dig at Mt. Ida, Arkansas. 2 mines open for contest 8-3 daily. Dave (trip leader) and wife Ann plus Bill and Debbie Curtain are going;

Several “go-on-your own” trips are available in October. These trips are open to everyone – no sign up necessary – just show up, sign a waiver, pay a small fee or donation and dig ---

more info can be found on the web: October 6-8, 2017, --- Graves Mountain, Georgia Rock Swap and Dig, near Lincolnton, Georgia daily from 8 a.m. to 6 p.m. for rutile xls, lazulite, iridescent hematite and many others; October 14-15, 2017 --- Trona, California, 76<sup>th</sup> Annual Gem-O-Rama – dig for dry lake specimens --- world famous pink halite xls, hanksite xls, borax xls and many others. 3 digs in 2 days -- \$15 per car per dig. Fun and very rewarding. Rock Show held concurrently; Nov 18, 2017 --- 27<sup>th</sup> Annual Richmond Rock Swap, 1515 Eastridge Rd., Richmond, VA 23229. High quality/diverse types of lapidary, minerals, fossils --- actual swapping of rocks. Local material as well as worldwide. Free admission.

**PROGRAMS:** Carole, Programs Vice President (absent) --- Tonight’s program was scheduled to be “Besides rocks , what other hobbies do the members have”, but due to the initial inability to get into the Nature Center, the program was delayed until October. Upcoming programs: October: “What hobbies beside rocks do our members have” (\*Club members are encouraged to speak a few minutes about their “Other Hobby”.) November program: Charles Zeller will be presenting the story of “Gold - Panning and Discovery”. Snacks tonight by Ralph; October snacks will be by Polly.

**WEBMASTER:** No report (Bob absent).

**OLD BUSINESS:** Nametags – Tim S. (absent) status of ordering new Club Nametags unknown. Northern Virginia Club

Show will be held on Nov. 18 & 19 at George Mason University in Fairfax, VA.

**LOCATION: George Mason University  
Dewberry Hall, Johnson Center, Braddock  
Rd & Rte 123; Fairfax, VA.**

**NEW BUSINESS:** Club Officers for 2018. The need to have "new blood" as Club Officers is imperative to keep the originality and vitality of the club going. We will be taking names for people interested in excelling in the positions we have in the club.

**ADJOURNED:** Business Meeting  
adjourned at 7:45 p.m.

### Upcoming Shows and Events: 2017

**October 28: 28th annual Ultraviolation Show hosted by the Rock & Mineral Club of Lower Bucks County. First United Methodist Church, 840 Trenton Rd; Fairless Hills, PA 19030.**

**October 28: South Penn Fall Rock Swap—South Mountain Fairgrounds-1.5 miles West of Arendtsville, PA on Route 234 8:00am- 3:00pm sponsored by Franklin County & Central PA Rock and Mineral Clubs**

**November 11-12: Fall New York City Gem & Mineral Show hosted by the New York Mineralogical Club. Watson Hotel (formerly Holiday Inn at 57th St), 440 West 57th St; New York, NY.**

**November 18-19: 26th Annual Gem, Mineral & Fossil Show sponsored by the Northern Virginia Mineral Club. NEW**

## SMRMC OFFICERS

### PRESIDENT

(position open)

Bob Davidson acting President

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## Rocks, Minerals, and Fossils in the News

### Exploring geology while RVing

Cindy Belt

<http://exclusive.multibriefs.com/content/exploring-geology-while-rving/recreation-leisure>



RVing allows you to see all sorts of locations. While collecting rock and fossil samples is forbidden in most state and national parks, looking at formations and the types of rocks and minerals is encouraged.

Every park you visit has some sort of story. Many parks will have a display explaining the geological history of the land, or you can ask a ranger for information.

Keep in mind there are three types of rocks.

**Sedimentary** rocks form from a deposit of particles. This most often happens when the land was underwater. These rocks include sandstone, limestone, gypsum, chert,

conglomerates, and shale. Many canyons are formed when water eroded this soft stone, giving us a great view of the layers.

**Igneous** rocks are formed from magma or lava. This can be deep underground or above ground...think volcanoes! These types of rocks include basalt, granite, tuff, pumice, and obsidian.



Basalt / lava at Sunset Crater Volcano National Monument in Arizona

**Metamorphic** rocks are formed from sedimentary or igneous rocks using the heat or high pressure of the earth. For example, limestone is changed into marble, shale changes into slate, and sandstone changes into quartzite. The ultimate metamorphic rock is diamond and the ultimate park is Crater of Diamonds State Park in Arkansas. Diamonds are found almost every day and you can bring them home. That said, I've never found a diamond, but there are other rocks can you bring home that are quite interesting, like agates.



Wet sifting at Crater of Diamonds State Park in Arkansas

Sometimes fossils can be found within rocks. Caesar Creek State Park in Ohio allows you to collect samples of fossils such as brachiopods and crinoids.

You can't collect fossils in most parks, but some of the most spectacular places to view fossils include the Petrified Forest National Monument, the Dinosaur National Monument in Colorado, Gray Fossil Site in Tennessee, and seeing dinosaur footprints at Dinosaur Valley State Park in Texas.



Kennecott Copper Mine in Utah

Another way of studying geology is to look at mines. Some are open mines on the surface like Kennecott Copper Mine in Utah. Many open mines have a viewing area and some type of museum. Some underground mines have tours where you have the excitement of riding into the mine and using headlamps.

Some examples include several coal mines in Pennsylvania, Old Hundred Gold Mine in Colorado, and the Queen Mine Tours in Bisbee, Arizona. Some mines are still being worked, while others like Flint Ridge State Memorial in Ohio were used by Native Americans.

Visiting museums is another method to study geology. Many museums have sections on geology. Some of my favorites are Arizona-

Sonora Desert Museum, New Mexico Institute of Mining and Technology, and the Smithsonian in Washington, D.C.

Finally, browsing and/or buying at gem and mineral shows can be fun. The biggest include shows in Tucson, Quartzite, Santa Ana, Springfield, Denver, and Las Vegas. You can easily spend days seeing the different types of gems, minerals, rocks, and fossils that are for sale.

RVing gives you a great chance to study geology close-up. What stories or areas can you share?



Petrified wood at Petrified Forest National Monument in Arizona

## New tyrannosaur fossil is most complete found in southwestern US

BY VICTORIA RITTER

<http://gearsofbiz.com/new-tyrannosaur-fossil-is-most-complete-found-in-southwestern-us/142122>



“With at least 75 percent of its bones preserved, this is the most complete skeleton of a tyrannosaur ever discovered in the southwestern US,” said Dr. Randall Irmis, curator of paleontology at the Museum and associate professor in the Department of Geology and Geophysics at the University of Utah. “We are eager to get a closer look at this fossil to learn more about the southern tyrannosaur’s anatomy, biology, and evolution.”

GSENM Paleontologist Dr. Alan Titus discovered the fossil in July 2015 in the Kaiparowits Formation, part of the central plateau region of the monument. Particularly notable is that the fossil includes a nearly complete skull. Scientists hypothesize that this tyrannosaur was buried either in a river channel or by a flooding event on the floodplain, keeping the skeleton intact.

“The monument is a complex mix of topography—from high desert to badlands—and most of the surface area is exposed rock, making it rich grounds for new discoveries, said Titus. “And we’re not just finding dinosaurs, but also crocodiles, turtles, mammals, amphibians, fish, invertebrates, and plant fossils—remains of a unique

ecosystem not found anywhere else in the world,” said Titus.

Although many tyrannosaur fossils have been found over the last one hundred years in the northern Great Plains region of the northern US and Canada, until relatively recently, little was known about them in the southern US. This discovery, and the resulting research, will continue to cement the monument as a key place for understanding the group’s southern history, which appears to have followed a different path than that of their northern counterparts.

This southern tyrannosaur fossil is thought to be a sub-adult individual, 12-15 years old, 17-20 feet long, and with a relatively short head, unlike the typically longer-snouted look of northern tyrannosaurs.

Collecting such fossils from the monument can be unusually challenging. “Many areas are so remote that often we need to have supplies dropped in and the crew hikes in,” said Irmis. For this particular field site, Museum and monument crews back-packed in, carrying all of the supplies they needed to excavate the fossil, such as plaster, water and tools to work at the site for several weeks. The crews conducted a three-week excavation in early May 2017, and continued work during the past two weeks until the specimen was ready to be airlifted out.

Irmis said with the help of dedicated volunteers, it took approximately 2,000-3,000 people hours to excavate the site and estimates at least 10,000 hours of work

remain to prepare the specimen for research. “Without our volunteer team members, we wouldn’t be able to accomplish this work. We absolutely rely on them throughout the entire process,” said Irmis.



Irmis says that this new fossil find is extremely significant. Whether it is a new species or an individual of *Teratophoneus*, the new research will provide important context as to how this animal lived. “We’ll look at the size of this new fossil, it’s growth pattern, biology, reconstruct muscles to see how the animal moved, how fast could it run, and how it fed with its jaws. The possibilities are endless and exciting,” said Irmis.

During the past 20 years, crews from the Natural History Museum of Utah and GSENM have unearthed more than a dozen new species of dinosaurs in GSENM, with several additional species awaiting formal scientific description. Some of the finds include another tyrannosaur named *Lythronax*, and a variety of other plant-eating dinosaurs—among them duck-billed hadrosaurs, armored ankylosaurs, dome-headed pachycephalosaurs, and a number of horned dinosaurs, such

as *Utahceratops*, *Kosmoceratops*, *Nasutoceratops*, and *Machairoceratops*. Other fossil discoveries include fossil plants, insect traces, snails, clams, fishes, amphibians, lizards, turtles, crocodiles, and mammals. Together, this diverse bounty of fossils is offering one of the most comprehensive glimpses into a Mesozoic ecosystem. Remarkably, virtually all of the dinosaur species found in GSENM appear to be unique to this area, and are not found anywhere else on Earth

### Member’s Finds

Some of the crystals collected during the 30th Annual World Championship Quartz Crystal Dig in Mt Ida, Arkansas by Dave Lines







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



**The Southern Maryland Rock and Mineral Club**

**Meetings take place on the 4<sup>th</sup> 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:  
SMRMC.org**