



It is Fair Time!!!!

October 3 at 7:00 PM.

### Museum of Arts and Sciences

Come join the early birds to chat. This month's guest speaker is Ryan Roney. Don't forget to bring your tiger's eye and your shark fossils (we love teeth).

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### Upcoming Events

October Meeting	
Ryan Roney	October 3
Ga. Nat. Fair	October 6-16
November Meeting	November 7

### President's Message

Hi everyone, it's time for the Georgia National Fair (October 6th – 16th). The club will be setting up 5 display cases in the Miller,

Murphy, Howard building. We will be promoting our club during the fair, hopefully getting new members to grow the club. Also hope to raise a little funds to boot! If you did not come to the September meeting and signup to work the fair. You can contact Susan Hargrove at 478-837-5327 to schedule date and times to help. We cover the booth between 10am to 8pm you don't need to work the whole day if you wish. Just tell Susan what day/days and times you would like to help. She will get you tickets to get into the fair. You should let her know ASAP so we can request the tickets for you. We have a fun time working the booth, so come and help us promote the club.

We finished stuffing 330 bags on this past Saturday, so we have 500 bags for the fair. A big thank you to, Maxine, Tina, Susan, and George, for helping me get these bags stuffed! It is election time so please come to the next couple of meetings to vote on the next group of elected officers.

President Jay

### September Meeting Minutes

President Jay Batcha called the September meeting to order at 7:05 P.M. with 20 in attendance and welcomed visitors Will and Joeanna McComb, James Loehr and James Gazaway.

Adoption of the minutes: The reading of the minutes from the previous meeting to be taken from the newsletter. A motion was made and the members approved.

Treasurer Report: Susan Hargrove gave the Bank C.D. and savings account balances. She also said there has been no activity and that the Yearly Museum rent hasn't been paid yet.

Programs: Tina Perkins said tonight's speaker was Jay Batcha with a Cell Phone presentation, "The World in Your Pocket" due to our previous speaker not being able to do the presentation. Ron Roney from the Tellus museum is the scheduled speaker for October and November is open.



**Field Trips:** Jay said there was a DMC Fossil Digging trip to Walker County Alabama coming up and a sign-up sheet was available. He also mentioned an Agate Dig on October 23rd in Summerville, Ga.

**Newsletter:** Tina Perkins said the deadline for members to send in input was September 12th. Will be mailed by the 18<sup>th</sup> for snail mail.

**Old Business:** Tina said the Club's Banner has been shipped and is being picked up soon. Jay mentioned needing volunteers for setting up and taking down Clubs Display Case at the Ga. National Fair with members discussing dates and times. He also said there was a sign-up sheet for members to volunteer manning the booth on certain dates and times. He also asked if anyone had any items that they wanted to put in the Clubs Display Case. He also mentioned filling 335 Grab bags at his house this coming Saturday and the Club would have 500 Bags at the Fair. He said If anyone has any cloth material or Rocks for the bags to let the Club know. Tina also mentioned the GA NASA Stem Conference at the Aviation Museum on Saturday September 17, 2022. The club will have an on-line vendor's booth and she will be doing a presentation.

**New Business:** Jay said the Clubs Officer Elections are coming up and the Elections Committee can start the process. Tina mentioned her printer is out and now would have to take Club Printing tasks to retail stores and the cost per sheet were expensive. A motion was made for the Club to purchase a new printer and a vote was taken with members approving the purchase. Also discussed, was the idea of a Club T-Shirt being created with members giving input on design and price.

**Mineral of the Month:** Jay said Opal is a non-crystallized mineral with a MOHs Hardness 5 to 6.5. Saying it was found in the igneous and sedimentary rock of Nevada, Mexico and Australia. He also mentioned watching the Australian Opal Mining Show on TV and saying that common or Potch Opal could even be found at Jones Pit in Unadilla,

Ga. Members had specimens on hand and a raffle followed with prizes.

**Speaker Of the Month:** Club President and Museum of Arts and Sciences employee Jay Batcha put together a walk thru interactive Cell Phone Exhibit called "The World in Your Pocket". He guided everyone to the Museum Exhibit Room where an authentic rotary payphone booth stood at the entrance. He then started explaining how all the displays progressed from the early 1870's Alexander Graham Bell's phone to a disassembled Apple iPhone showing all the components. The displays started with early telegraph stations and Morse Codes from 1911, then on to many examples of Rotary and push button phones from the 1900's. Next a 1930's Switchboard station from Vidalia, Georgia, then many antique Cameras, Camcorders, Radios, Audio Players, Game Boys, Nintendo devices, Desktop Computers and Data Storage Drives, showing the evolution of technology that now is combined in one handheld device called the Smart Phone. He had a display also titled "everything else" showing many tools and functional items that rounded out the Smartphone. These items comprised of old maps, magnifying glasses, encyclopedias, clocks, flashlights, levels, tape measures, thermometers, compass, newspapers, magazines and the access to the World Wide Web Internet. The tour concluded with two large displays of the disassembled i-Phone with many of the actual specimens of Minerals, Metals and Rare Earth Elements in the display case. There was also information on wall posters explaining how these items physically make up the components of our cell phones and where they came from around the World.

Meeting Adjourned at 8:24 P.M.

Respectively submitted by Al Steffanini

Pictures from the exhibit below were sent in by Al Steffanini



Lots of old-style phones.



Cameras and pictures from past times.



Gaming systems



What makes up a cell phone.

From the editor:

Jay did a wonderful job at putting this together. If you did not make the meeting it would be a wonderful outing to come to the Museum just to see the exhibit. If you are curious about the mineral composition of the cell phone, I tried to make a list, but there are a lot. My list is below. If you want to make your own components this is what you will need to look for in the great outdoors.

#### Minerals:

Copper, Sulfur, Graphite, Gold, Galena (lead), Fluorite, Rutile, Oil Shale, Purpurite, Garnierite, Halite, Bastnasite, Magnesium Ore, Palladium, Platinum, Lepidolite, Gallium arsenide, Cesium oxide, Fluocerite, Erythrite, Sylvite, Celestine, Tungsten, Silver, Apatite, Beryl, Crocoite, Rhodochrosite, Sphalerite, Zircon, Monazite, Gadolinite, and Tin.



## Nomination Committee Report

The following individuals have been nominated for officers in the club. The club will vote on this at the next meeting October 3. If you would like to add your name to the list of candidates, please contact the editor of the newsletter or Bill Mayer.

President: Jay Batcha  
Vice President: Bill Mayer  
Treasurer: Susan Hargrove  
Secretary: Al Steffanini





An Official Field Trip of the Cobb County  
Gem and Mineral Society (Marietta, GA)  
(HOST)

An Official Field Trip of the Mid-Georgia Gem  
and Mineral Society (Macon, Ga)

**Sunday, October 23, 2022**

**10:00 AM to 2:30 PM Eastern Time**

**Chattooga County, GA**

**Summerville Crazy Lace Agate**

**RSVP if you plan to attend**

**NOTE:** DMC field trips will continue to be planned and scheduled, but may be cancelled or rescheduled pending COVID-19 status. If there are any changes to a trip, all contacts listed for DMC member clubs will be notified via email as soon as possible. The DMC trip schedule page on the SFMS website

(<https://www.southeastfed.org/sfms-field-trips/dmc-field-trip-program/dmc-field-trip-schedule>) will also be updated with the current status of trips. Lori Carter, DMC Coordinator

**TRIP:** This is a great site for children, and adults of all skill levels.

**COLLECTING:** Crazy lace agate, banded agate, druzy quartz, colored chert, oolitic chert and dolostone. Nice pieces for making cabochons can be found at this site.

**BRING:** A rock hammer or garden spade to dig out pieces, a chisel, small ground shovel, potato rake or garden trowel and buckets to put finds in would be useful at this site. A small cart or hand truck is great for hauling larger pieces of take-home material. Much of the material is covered with a chalky white substance; bringing a container of water for dipping material or a spray bottle of water to clean off the chalky substance is helpful for identifying good material.

Also bring sunscreen, plenty of fluids to drink and your lunch. We will have cold waters and snacks at the site while they last. Eye protection is a must for anyone wishing to break material apart with a rock hammer or sledge hammer. Make sure you are a safe distance from other participants if using a hammer.

**IMPORTANT:** This is an active quarry, no one will be allowed anywhere close to the machinery on the premises. Further, participants are to stay away from vertical walls and are not allowed to walk on the top of the quarry. The trip leader will ask any person who violates these quarry rules to leave as any violation of these rules will jeopardize our future use of this site.

**FEE:** There is no fee.

**REGISTRATION:** There is no registration required.

**RSVP:** Please email us if you are attending so we can have an idea of how many waters and snacks we need to have.

**CHILDREN:** This is a good site for children as well as adults of all skill levels. Children will need to be supervised by an adult.

**PETS:** No pets.

**FACILITIES:** There are no facilities at this site. You will need to drive approximately 2.2 miles into the closest town which is Summerville.

**COVID-19:** All participants are required to wear masks at the meeting site and when asking our trip leader questions. Masks will not be required at the collecting site. All participants (except family members) are asked to maintain a distance of at least 6 feet between each other when possible. All attendees must supply contact information and agree to send email to [ccgms.fieldtrips@gmail.com](mailto:ccgms.fieldtrips@gmail.com) if they test positive for COVID-19 after the trip. All other attendees will be notified via email of any such reports.

**DIRECTIONS AND WHERE TO MEET:**

Meet at the site at 10:00 am Eastern time on Sunday, October 23, 2022. This is in the NW corner of the state of Georgia. Participants will



meet Dion at the quarry site and must sign a release before entering the collecting site. From I-75, exit at #306 and take GA 140 West toward Adairsville. Turn right on to US 27. The Quarry will be on the left between the county owned waste dumpsters and the US Forest Service office. This is approximately 3.0 miles beyond the intersection of Gore Sublinga Rd. and about 2.2 miles South of Summerville, GA. Physical address is 7525 US 27, Summerville, GA.

**WEATHER:** The field trip will be cancelled if there are severe weather warnings issued for Chattooga County, GA by the National Weather Service 12 hours in advance of the meeting time. However, we will meet if there is light rain or scattered rain showers in the weather forecast.

**CONTACT:** CCGMS Field Trip Team Leader: Dion Stewart. For questions, contact CCGMS Field Trip Co-Coordinator Toby Stewart at [ccgms.fieldtrips@gmail.com](mailto:ccgms.fieldtrips@gmail.com) or call 678-417-1786 and leave a message if no answer and she will get back to you. Please email us if you are attending so we can have an idea of how many waters and snacks we need to have.



Pictures by CR Munson



## Mineral of the Month

### Tiger's Eye

Tiger's Eye, a popular yet inexpensive gemstone, is a pseudomorph of compact Quartz after the fibrous mineral Crocidolite. It is formed when the Quartz takes over and dissolves the Crocidolite, leaving the Quartz in a finely fibrous and chatoyant form. When polished, it's silky luster creates a beautiful chatoyant effect of moving layers of brown and yellow lines and waves.

**All About:** Tiger's Eye forms when Quartz forms over existing bluish-gray Crocidolite, and eventually entirely replaces it. Crocidolite is a type of asbestos mineral, which means its composition is of fine, dense fibers. These fibers form in a parallel yet wavy orientation, and this causes the intriguing chatoyant effect exhibited in Tiger's Eye. During the replacement process, the iron within the Crocidolite dissolves and stains the Quartz, thereby providing the golden yellow to brown color of the Tiger's Eye.

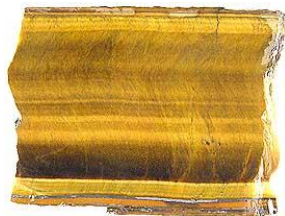


The original Crocidolite is a bluish-gray color, and sometimes the pseudomorphism to Quartz is incomplete. When this happens, the result is a stone with a bluish-gray color (and often with streaks or overtones of brown or yellow), but still with chatoyant effect. This type of material is known as Hawk's Eye. Tiger's Eye may form together with brownish-red or metallic-gray Hematite, or with yellow Limonite, where these minerals forms stripes, streaks, or patterns within the Tiger's Eye. Such material is often called Tiger's Eye Matrix.



When cutting and polishing Tiger's Eye gemstones, skillful orientation to the fibrous structure must be applied to achieve the best chatoyancy. Ideally the cut should be perfectly parallel to the length of the fibers to achieve fullest chatoyancy. Cat's eye effect in Tiger's Eye do exist, but are uncommon in perfect form due to the wavy nature of the fibers.

**Uses:** Tiger's Eye is a very inexpensive gemstone, and is used in beads for bracelets and necklaces, as well as in pendants. It is also used for costume jewelry and occasionally used for ornate carvings or floral pins. Gemstones cuts of Tiger's Eye are encountered but are not common.



Slab golden tiger's eye

#### Varieties:

- Arizona Tiger's Eye- Quartz or Opal pseudomorph after fibrous Serpentine, found near Globe in Arizona.
  - Blue Tiger's Eye- Synonym of Hawk's Eye
  - Hawk's Eye- Bluish-gray variant of Tiger's Eye, lacking the yellow or brown color. Hawk's Eye is formed from an incomplete pseudomorphism of Quartz after Crocidolite.
  - Marra Mamba Tiger's Eye- Strongly chatoyant Tiger's Eye from the Hamersley Range in Western Australia, with a beautiful multicolored effect of reddish brown, steel-blue, yellow, and yellowish-green.
  - Tiger Iron- Synonym of Tiger's Eye Matrix
  - Tiger's Eye Matrix- Tiger's Eye admixed with iron oxide lines or patterns. These include dark gray or red Hematite and yellow Limonite.
- Tiger's Eye Sources: The chief source of Tiger's Eye is South Africa, from the Northern Cape Province. Other, less important sources include Namibia, Australia, India, and Thailand. Although uncommon worldwide, the abundance of the deposits in South Africa are

extensive enough to make Tiger's Eye very affordable.

## Fossil of the Month

### Sharks and Rays

It is fitting that the fossil of the month is things that can be found in the state of Georgia.

Along Georgia's coast or in the sedimentary deposits of the coastal plain and fall line you can find both sharks' teeth, ray dental plates and occasionally other oddities.



#### Shark Vertebra

Dr. David Swimmer who spoke to the club in June had a sawfish (carpenter shark) named after him; *Borodinopristsis schwimmeri*. Sharks shed their teeth regularly and continue to replace them. Thomas Thurman who has the website [georgiafossils.com](http://georgiafossils.com) has a long list of sharks that are found in Georgia including *Otodus megalodon*. All of the ones in the list below were reported by Hank Josey from the spoil piles on the man-made islands in the Savannah River. All in all, there is over 19 million years of evolution for the sharks of the area.

<i>Carcharhinus leucas</i>	Bull shark
<i>Carcharhinus limbatus</i>	Blacktip shark
<i>Carcharhinus obscurus</i>	Dusky shark
<i>Carcharias taurus</i>	Sand tiger shark
<i>Carcharocles megalodon</i>	Megatooth shark
<i>Carcharodon carcharias</i>	Great white shark
<i>Galeocerdo contortus</i>	Long-tooth tiger shark





Galeocerdo cuvier

Tiger shark



Hemipristis serra

Snaggletooth shark



Isurus desori

Shortfin mako shark

Isurus hastalis

Giant mako shark

Myliobatis

Eagle ray

Negaprion eurybathrodon

Lemon shark

Sphyrna laevis  
(georgiafossils.com)

Hammerhead shark

Other sharks have been found in the Eutaw Formation, Clayton Formation, the Blufftown Formation and others.



## SHOWS

Be mindful that shows may be cancelled due to Covid-19.

**GTS Gift and Jewelry Show**  
10/7- 10/9/22  
Greensboro Coliseum Complex  
Greensboro, NC  
(No other information available)

## Huntsville Gem and Mineral Society

Jewelry, Gem and Mineral Show  
Huntsville Jaycee Community Center  
2180 Airport Road  
Huntsville, AL 35802  
October 14-16, 2022  
<http://huntsvillegms.org/>

## Athens Rock, Gem, Mineral, and Jewelry Show

10/21-10/23/2022  
Friday/ Sat 10-6  
Sun 11-5  
The Classic Center  
440 Foundry Street Pavillion  
Athens, Ga. 30601  
<https://www.facebook.com/SoutheasternMineralSpecimens>

## MAGMA/Land of the Sky Gem Show

9/30-10/2  
Land of the Sky Shrine Club  
39 Spring Cove Rd  
Swannanoa, NC 28778  
<http://www.americanrockhound.com/>



## Fulgurites, what are they?

Most people have never seen a fulgurite, and many that have, most likely did not realize what it was. Fulgurites are natural tubes or crusts of glass formed by the fusion of silica (quartz) sand or rock from a lightning strike (roughly 2500 degrees Celsius). Their shape mimics the path of the lightning bolt as it disperses in the ground. All lightning strikes that hit the ground are capable of forming fulgurites. Although fulgurites have been found worldwide, but are relatively rare. There are two types of fulgurites, sand and rock, with sand being the most common. Generally found in beach or desert regions



containing clean (free of fine-grain silt/clay) dry sand, the fulgurite resembles roots or branching tube like structures with a rough exterior covered by partially melted sand grains. Sand fulgurites have a glassy interior, due to the rapid cooling and solidification of the sand after the lightning strike. The size and length of a fulgurite depends on the strength of the lightning strike and the thickness of the sand bed.



Many sand fulgurites average 1-2 inches in diameter and can be up to 30 inches long. Sand fulgurites have been found in Utah's desert and on top of some of the higher summits of the Wasatch Range.

Coatings or crusts of glass formed on rocks from a lightning strike are called rock fulgurites. These fulgurites are found as veins or branching channels on a rock surface or lining preexisting fractures within the host rock. Rock fulgurites are primarily found on the top or within several feet of mountain summits and are common on many mountain ranges throughout the world.

Reprinted from TAL 4/07, Gem-N-I 9/07

### From the Editor/Program Person/ Bag Lady/ Publicity:

Each month I work on articles for the newsletter and it would be nice if some other people in the club would share their ideas, stories, or pictures.

I am also the one that tries to get an interesting program for the club with Jay's help. I have all the months lined up except for November. If you would like to present or know someone who you can ask to present, please let me know. I am going to talk to one person this week and I will be able to tell you if we have someone by meeting time.

Our **new banner** will be on display at the fair. This is the smaller indoor one and I will be getting our outdoor one ready for the DMC dig we will be hosting in March 2023.

Last but not least I sew the grab bags and I want to make a public thank you to George, Jay and Jay's family members who graciously donated material for next year's grab bags. We still need some **boyish** material, but I have already cut out 100 bags from what I have been given.



Bag stuffed for this year- 2022.  
Tina Perkins





### JOKES FOR ROCK LOVERS

[68 Hilarious Rock Jokes To Make You Roll](#)  
[With Laughter \(wittycompanion.com\)](#)

Which magazine do rocks subscribe to?  
Rolling Stone

What did the young rock say about failing his tests?  
I don't want to talc about it.

Why was the meteor show that wiped out the dinosaurs necessary for earth?  
It was for the crater good.

Why was the sedimentary rock collection so cheap?  
Because it was on Shale.

### **Mid-Georgia Gem Clips** **Official Bulletin of Mid-Georgia** **Gem and Mineral Society** **Macon, Georgia**

The Club meets on the First Monday of each Month, at The Museum of Arts and Sciences, in Macon, Georgia at 7:00 PM.

**Except:** No meeting January, July, and August. The annual Christmas Party is the first Monday in December. September the first Tuesday of the Month

**Purpose:** To promote the earth sciences, the lapidary arts, and the collection, study and display of rocks, minerals, and fossils; to promote the public awareness of these efforts in educational and recreational activities.

#### **Club Officers:**

**President/ Field Trips:** Jay Batcha, 4220 Cyndy Jo Circle, Macon, Ga. 31216, ph. 478-957-5002  
[rocky1s@cox.net](mailto:rocky1s@cox.net)

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**Web Master:** Pam Mayer, [pam5mayer@gmail.com](mailto:pam5mayer@gmail.com)

### **Mid Ga. Gem and Mineral Society** **Application for Membership**

Name(s) \_\_\_\_\_

\_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_

Adult (18-64) \$15.00      Junior \$ 5.00  
Family (2 adults and 2 children under 18) \$25.00  
Additional children \$5.00

Seniors (65+) \$10.00      Newsletter mailed \$5.00  
New \_\_\_\_\_      Renewal \_\_\_\_\_

E-mail \_\_\_\_\_

Address \_\_\_\_\_

How did you hear about us? \_\_\_\_\_

Circle your interest(s):

Gems and Minerals      Lapidary      Fossils

Education      Rocks

Make checks payable to:  
Mid-Georgia Gem & Mineral Society  
Mail to the Treasurer (listed on this page) or  
bring to a meeting.



## **Mid-Georgia Gem Clips**

**Official Bulletin of Mid-Georgia Gem  
and Mineral Society  
Macon, Georgia**

**Member of Southeast Federation of  
Mineralogical and Lapidary Societies  
Member of American Federation of  
Mineralogical Societies**



## **Mid-Georgia Gem Clips**

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