

# CRACK 'N CAB

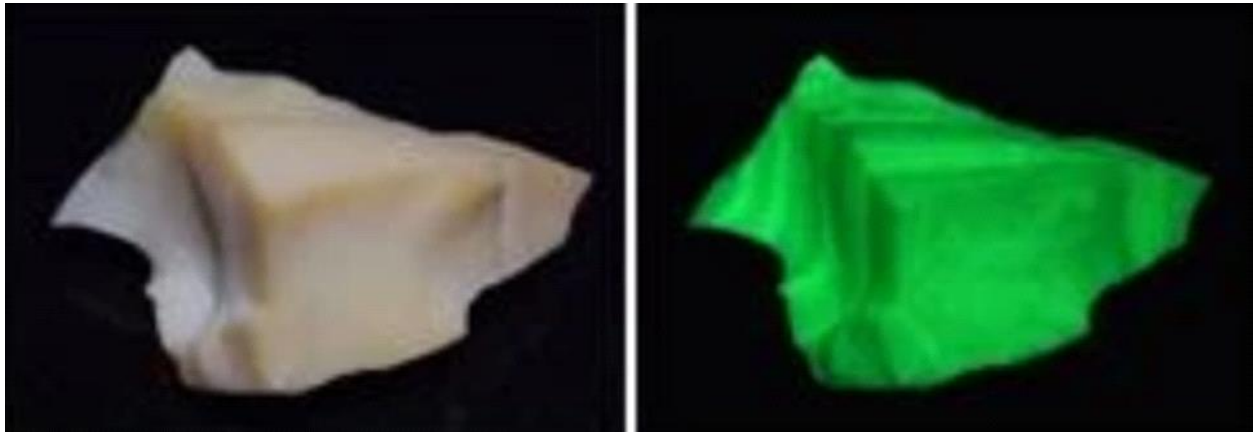


Gem & Mineral Society of Syracuse, PO Box 2801, Syracuse, NY  
web <http://www.gmss.us> Volume 50 Issue 10, October 2020  
209 Oswego St (Ponderosa Plaza), Unit 15, Liverpool, NY

**October 19 Meeting, 7:30 pm @ the Clubhouse**

**Susan Sharp Presents:**

## RADIOACTIVE AND FLUORESCENT MINERALS



*Common Opal (Mexico)*

One of the most spectacular exhibits to observe is a dark room filled with fluorescent rocks and minerals that are illuminated with ultraviolet light! They glow with an amazing array of colors, such as the Common Opal shown above in its natural color under conditions of normal illumination on the left, and under ultraviolet short-wave light on the right. Ultraviolet light activates fluorescent minerals and causes them to temporarily emit visible light of various colors ("fluorescence"). Interestingly, some fluorescent minerals are also radioactive, such as the Common Opal shown, because it contains a small amount of the radioactive element uranium. Join us on October 19 for an exciting 'light show' as we share our collection of fluorescent and radioactive minerals from around the world. Following our presentation, we will be donating our collection to the GMSS.

**SEATING IS LIMITED – CALL KRIS 315-487-5202**

**"Discover The Fun Of Backyard Geology" (Part One) – Page 6**

**September Meeting Photo Pages – 8th thru 10th pages**

## President's Message

Dick Lyons



It has been a difficult year especially for our show dealers. Most of the shows since March were cancelled. In many states across our country, shows are still scheduled. The monthly meetings and field trips for our club have been very limited. Have you been out collecting since March? Let us know.

We have **reserved the second weekend in July** at the Center of Progress Building with the management of the New York State Fairgrounds. I recently sent out the dealer contracts by e-mail for the 2021 show to those who were scheduled to participate this year. I am optimistic about having a show again this year along with the Eastern Federation Convention hosted by our club. Until a vaccine is found for the virus and available to everyone, the Governor may not allow the show to take place.

I hope there will be a **show at the Albany museum this coming February**. I know that a few of you would be interested in going there. We hope to also **schedule field trips again next year** for fossils to Lord's Corners and to the East of Syracuse. We have been to various locations in St. Lawrence County in the past years for mineral specimens. I would like us to go there again. ***Do you have any favorite locations?***

Let us all enjoy this coming year as rockhounds and jewelry makers in spite of the virus.

## Secretary's Report

Cathy Patterson

### Executive Board Meeting Minutes

The GMSS Board (usually) meets the first Tuesday of the month at the clubhouse in Ponderosa Plaza 7:00 PM. GMSS members are welcome to attend.

### **Gem and Mineral Society of Syracuse, Inc. Board Minutes October 7, 2020**

The GMSS Board met Wednesday, October 7, instead of the usual first Tuesday of the month. Seven Board members were

present with 3 guest members also present. The meeting was called to order at 7:00 PM at the clubhouse.

**Treasurer's Report** – Mary Davis our new Treasurer reported that the annual audit of club funds was all in order. Outgoing Treasurer, Linda Sweeney Clark, is to be thanked for helping Mary with the financial books and will guide her, for the short term, to familiarize Mary with our financial procedures. It was discussed that without our annual show income in 2020 our bank account is diminishing. EFMLS dues have been put off due to the COVID virus. EFMLS insurance has been deferred for 3 months for the same reason.

**Programs – Kris Boronczyk Vice President- the October 19** meeting at 7:30 PM will feature speaker **Susan Sharp** who will talk about the Sharps' collection of fluorescent minerals and radioactive specimens. She has specimens to sell also. A motion was made for the club to purchase a small Geiger counter to go with the collection of radioactive minerals the Sharps have donated to the club. The motion was seconded, and the purchase will be made at the October meeting.

The **November 16** meeting speaker will tell us about the historically significant explosion at Split Rock many years ago. More information on this will be in the next newsletter.

Concern was expressed about the number of attendees for the upcoming meetings ensuring the health and safety of all. It was agreed to keep the number of attendees at 25 to accommodate social distancing in this time of the COVID virus. If you would like to attend the October meeting you are asked to **register by contacting Kris Boronczyk at 315-487-5202**. You will be put on a list so get your name in early, please. Naturally, if you feel sick, have loss of smell /taste, have fever, please stay home to recuperate.

**December 6, 2020** - Holiday Brunch , Sunday noon – 4:00PM, will be at Bella Domani 5988 East Taft Rd. North Syracuse. We are hopeful that the COVID virus will not get worse to cancel these plans. The menu will be printed elsewhere in the newsletter. We are asked to make brunch payment of \$20 per GMSS member and \$25 for guests who are not members at the October or November meeting. Payment must be in soon to lock in the date. After being isolated for so many months this event will be a welcome change!

**January 18, 2021** – Dave Millis “Rock Doc”

**February 15** - Steve Mayer will speak about eurypterids. At each meeting on our sign-in sheet we ask for everyone's name and phone number in case we need to do any contact tracing due to the COVID virus. Thanks in advance for your cooperation.

### **Field Trips**

Wayne County Club is having a field trip **October 24**. Those who are going are meeting at Herkimer Diamond Mine at 9AM. If you interested in going on any field trips please contact Kris Boronczyk.

### **Hospitality**

We have decided to forgo all meeting treats until the COVID virus is of no further concern. Sadly, no beverages or food will be available during the meeting until further notice. All

attendees are required to be masked and to social distance for the safety of all.

### EFMLS Convention

Though this Eastern Federation of Mineralogical and Lapidary Societies Convention will be held live in Hickory, NC our delegates **Dick Lyons** and **Kris Boronczyk** will virtually attend October 23-26.

### GMSS/EFMLS Convention Show - July 10-11, 2021

Show Chairman, Cheryl Brown, will start having Show Committee meetings January 25, 2021. We are hopeful it will be safe to hold our show but there are no guarantees in these uncertain times. We expect to again be at the Fairgrounds.

### GMSS Facebook

Many thanks to Judy Cook for operating our club Facebook page. Check in there for interesting mineral/fossil articles and news.

Respectfully submitted,  
Cathy Patterson Secretary

## Geo Lexis (Puzzle) By Anne Fitzgerald

### “Falling Forward”

Wordy types often take things literally. We get hung up on words and meanings and mnemonics like “Spring Forward, Fall Back.” It is possible for some things, flowers, and people to spring back instead of forward. It is also possible to fall forward rather than back, for example, while skiing. And so, when it's time to change our clocks, I only get ticked off trying to remember the mnemonic, the meaning, and how to spell “mnemonic.”

But one day, long ago, I heard about the “Atomic Clock.” Now that was something I could understand. How precise! How perfect! What could be better than being based on an atom! Until I found out they are making more and more precise atomic clocks. That meant they weren't exactly exact.

We went from pendulums to quartz crystals to laser-cooled clocks and yes, even time crystals! It turns out that different elements are better timekeepers than others. We are only just getting more and more precise, but never exact.

The only way to clear my head is to take a giant leap forward over all the confusion and just focus on the beautiful fall weather. Pondering “Leap Year” will have to wait for another day.

Unscramble the following possible components of an atomic clock. The solution can be found on Page 5 of this newsletter.

**muisec**

**miutnorst**

**bidiumru**

**snio**

**rosllatoci**

**gnatesm**

**curryem**

## Upcoming Events

**October 19 – GMSS meeting “Radioactive and Fluorescent Minerals,”** by Susan Sharp.

**October 24– Wayne County Club field trip** – see Page 2 for more information.

**November 16 – GMSS meeting “The Split Rock Disaster”** More info. next month.

**December 6 – Holiday Brunch** – see Page 2 for more information.

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### Wednesday Workshop

Steve Shorey has opened the **lapidary workshop** again on **Wednesday afternoons from 1 to 4.** If you have taken John Sweeney's Lapidary class, you can use the club equipment. The cost is \$5.00.

### Are you ready to get out of the house?

You can also bring a non-lapidary project in to the Wednesday workshop from 1 to 4 as well. No charge. Just bring all your own tools and supplies.

## Birthstone of the Month

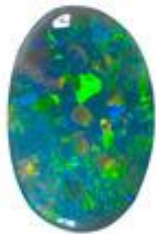
### The History of Birthstones

The first century A.D. Jewish historian Josephus believed there was a connection between the 12 gemstones in the breastplate of Aaron, the first High Priest (Exodus 28:15 – 21) that represented the 12 tribes of Israel, the 12 months of the year and the 12 signs of the zodiac. There is also a list of 12 Foundation Stones of the New Jerusalem in Revelation 21:19 – 20.

Over the centuries, and in different cultures, the list of birthstones changes.



Precious opal on brown sandstone matrix from Australia



Black opal from Australia

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[AfricaGems](http://AfricaGems.com)

### October: Opal & Tourmaline

October is another month that has (at least) two birthstones!

**Opal** The word “opal” is derived from the Ancient Greek word *opallios*, and the Latin word *opalus* meaning “to see a change in color.” It may also come from the Sanskrit word *upala*, meaning “precious stone.” Arabic legend claims that opals fell from the sky in bolts of lightning, and Australian aborigines believed the creator came to Earth on a rainbow and left the colorful stones where his feet had touched the ground.

During the Middle Ages, people believed the opal contained the powers of each gemstone whose color was represented in the spectrum of the opal. This made it a lucky stone to wear. But Sir Walter Scott’s 1829 book, *Anne of Geierstein*, changed all that. In the story, an enchanted baroness wore an opal talisman that changed colors with her mood. Drops of holy water fall on it, the opal turns into a colorless stone, and the baroness soon died. So, people started associating opals with bad luck and

death. Within a year after the book’s publication, opal sales in Europe fell 50%, and remained low for about 20 years.

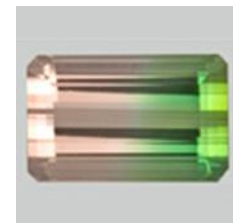
Opal is a hydrated, non-crystalline (or amorphous) form of silicon dioxide, like quartz. Its water content ranges from 3 to 21% by weight and is usually between 6 – 10%. Opal has a hardness of 5.5 – 6 on the Mohs Hardness Scale. It forms as low-temperature deposits around hot springs and in veins and fissures of almost any kind of rock. It can also be found replacing shells, bones, plants or other minerals. There are two classes of opal. Precious opal displays “play of color” (iridescence); common opal does not. There are many varieties of both kinds.

Reportedly North African opal was used to make tools as early as 4000 BC. Opal was discovered in Australia around 1850, and now it produces about 95% of the world’s supply of precious opal. Other current sources are in Brazil, the Czech Republic, Ethiopia, Honduras, Hungary, Mexico, Peru and Slovakia. In the United States deposits of a variety of precious opal can be found in Humboldt County in northern Nevada, California, Idaho and Oregon.

Precious opals are cut and polished into cabochons and used in all forms of jewelry, including pendants and in rings. Opal doublets are thin slices of precious opal glued onto a darker backing. Opals are subject to crazing under extreme temperature, dehydration or direct light, which causes them to form internal cracks.



Assorted tourmaline colors from Brazil



Bi-colored tourmaline

© [www.johnbetts-fineminerals.com](http://www.johnbetts-fineminerals.com).

[AfricaGems](http://AfricaGems.com)

**Tourmaline** The name comes from the Sinhalese word *tura mali* (or *Tamil tuvara-malli*), meaning “stone of mixed colors.” It’s applied to a group of

gemstones found in the southern parts of the Indian subcontinent.

Egyptian legend says tourmaline got its array of colors when it passed through a rainbow on its journey up from the Earth's center. Ancient magicians used black tourmaline as a talisman to protect against negative energy and evil forces. In the 19th century, chemists used tourmalines to polarize light by shining rays onto a cut and polished surface of the gem.

Tourmaline is a complex borosilicate group of minerals and elements, such as aluminum, iron, magnesium, sodium, lithium or potassium, with related chemical compositions and physical properties. Trace elements produce the varied and distinct colors. It has the greatest color range of any gemstone, and there are seven distinct species that make up the group. It is classified as a semi-precious stone. It has a 7 – 7.5 on the Mohs Hardness Scale. The mineral elbaite group produces most of the gem varieties. Schorl is the common black variety, containing iron and makes up about 95% of all tourmaline in nature.

Tourmaline is found in granite and granite pegmatites, and in some metamorphic rocks such as schist and marble.

Gem tourmaline is mined mainly in Brazil and Africa. Other sources include Afghanistan, India, Indonesia, Kenya, Madagascar, Mozambique, Nigeria, Pakistan, Russia and Sri Lanka. In the United States deposits are located primarily in Maine (discovered in 1822) and California (found in the early 1890s). Native Americans used tourmaline as funeral gifts for centuries. Brown magnesium (dravite) tourmalines of St. Lawrence County, New York, are formed in metamorphosed limestone.

Tourmaline can be faceted into gems for jewelry. It is used as pendant stones, in bracelets, rings and earrings. Lesser quality stones can be cut into cabochons, polished into beads and used in bracelets and necklaces.

### Answers to Geo Lexis

<b>muisec</b>	cesium
<b>miutnorst</b>	strontium
<b>bidiumru</b>	rubidium
<b>snio</b>	ions
<b>rosllatoci</b>	oscillator
<b>gnatesm</b>	magnets
<b>curryem</b>	mercury

#### Sources:

[www.nist.gov](http://www.nist.gov): (My new favorite website.) This is the National Institutes of Standards and Technology.

[www.nasa.gov](http://www.nasa.gov)

[www.brittanica.com](http://www.brittanica.com)

<https://phys.org/news/2020-08-crystals-interacting.html>



## *Holiday Party*

**December 6, 2020**

**Noon to 4:00**

**Bella Domani**

**5988 East Taft Road**

**North Syracuse**

\$20.00 members

\$25.00 non-members

**See Mary Davis at the October meeting**

# Discover The Fun Of Backyard Geology

September 2, 2020

## Hermann Samano

*Hermann Samano is part of the marketing team at Porch.com.*

*He enjoys writing content that helps homeowners succeed in their projects.*

(Part One)

When you're teaching your kids about the big wide world, why not start in your own backyard? Give them a shovel and turn them loose on the path to learning first-hand about our planet's rocks and minerals through your own backyard geology.

Rocks and stones are solids naturally made from minerals. Becoming a rock-finder, or a rockhound as some call it is a cool way to spend time and learn about how rocks are formed.

When you introduce your kids to geological exploration, it's quite possible that this up-close, hands-in-the-dirt, real-life learning can spark a lifelong interest in science and geology. They can hunt for and examine rocks and discover how and when those rocks or minerals formed on Earth. Kids – and adults – can uncover facts about their own local geology and then branch out to other cities, states, countries, and continents. Pretty much wherever you go you can find rocks.

We'll show you easy-to-use tools and methods for finding and identifying different types of rocks and minerals. You don't have to be an expert, and this may become a great hobby and bonding experience for your whole family.

## Why is Backyard Geology the Perfect Hobby?

Ever wondered what lies beneath the surface of your yard? Why not find out? Rockhounding is enjoyed worldwide by many. Now's the perfect



time to start a geology project in the comfort of your environment.

Hands-on learning tends to stick long after book chapter information is jettisoned from children's memories, so rock-collecting is a wonderful introduction to Earth sciences. Kids can gain an appreciation for and expertise in useful scientific methods like observation, examination, note-taking, and online data research. This can even ignite conversations during road trips as your kids notice different types of rock formations alongside the road. Feel free to pull off the road to examine those rocks up close for an impromptu onsite experience.

## Gather the Basic Tools

You can easily find many of the tools you'll need at home, making this an economical hobby. You don't need to buy fancy tools. Items you don't have in your own garage, basement, shed, or junk drawer you can find at your local hardware store, yard sale, or thrift store. Involve your kids in the gathering process.

You'll need:

- Garden shovel
- Small hand shovel or digging spoon
- Gardening gloves

- Sifting pan
- Water
- Small notepad with a pen or two
- Nail made of iron or a paperclip
- Small piece of unglazed porcelain or ceramic tile
- Small unused glass bottle, drinking glass or coffee mug you won't mind being damaged
- Vinegar
- Paper towels
- Small sealable containers to hold stones or soil
- Old wheat penny or an old copper mug
- Kitchen magnet
- Microscope
- Camera or cell phone camera
- Magnifying glass
- Desk or a table with a lamp for a workspace
- Internet to access rock and mineral identification sites like [minerals.net](http://minerals.net) and [Geology.com](http://Geology.com)
- A beginner's geology book like National Geographic Kids "Everything Rocks and Minerals"

While gathering supplies, also think of comfort while digging. You may want a rain umbrella or beach umbrella for shade, so kids aren't in the sun for too long. If the soil is rocky, you may want a thick blanket for the ground. Bring baby wipes for dirty hands and dirty rocks.

(Part Two Next Month)

## Membership Renewal

It's that time of year again!

**Single adult membership - \$10.00**

**Junior membership - \$5.00**

**Family membership - \$15.00**

**Life membership - \$5.00**

Renewals can be made through the mail and at the October meeting.

## In The News...

From The Eastern Federation of Mineralogical and Lapidary Societies, Inc.:

### Bob Jones Q & A with Young Collectors

A Landmark Event designed to engage our youngest collectors with one of our industry's foremost authors.

**Join us on October 14th  
@ 7:pm on Zoom**

**Register in advance by  
clicking [here](#)**

This event is a collaborative effort among outside organizations with the EFMLS Change Management & Leadership Council.

### T. Rex Skeleton Brings \$31.8 Million at Christie's Auction

A 40-foot-long dinosaur fossil named Stan was the headliner at an auction of Impressionist and Modern art worth more than \$300 million.

**By Zachary Small, New York Times Oct. 6, 2020**

A creature from the late Cretaceous period smashed sales records on Tuesday in an auction that also included works by Picasso, Pollock and Monet, leaving auction watchers wondering which anonymous buyer now owned a multimillion-dollar Tyrannosaurus rex.

The T. rex skeleton, nicknamed Stan, closed the [20th Century Evening Sale](#), nearly quadrupling its high estimate of \$8 million to bring in \$31.8 million, with fees.

Standing 13 feet high and 40 feet long, Stan casts an imposing shadow. Researchers have theorized that punctures in Stan's skull and fused neck vertebrae demonstrate that this Tyrannosaurus was a warrior, one likely to have survived attacks from his own species.

*Might have looked nice in my living room!*

**September 21, 2020 Meeting – New Officers, Tailgate Sale and Mica Creations**

**Photos by Judy Cook**



Swearing in our new officers: Cathy Patterson, Secretary; Mary Davis, Treasurer; John Sweeney, Sgt at Arms; Dick Lyons, President; Kris Boronczyk, Vice President.



Handing over the keys...with much relief!



Cheryl receives her plaque honoring her for her service as (past) President.







**So many choices... it's hard to decide!**

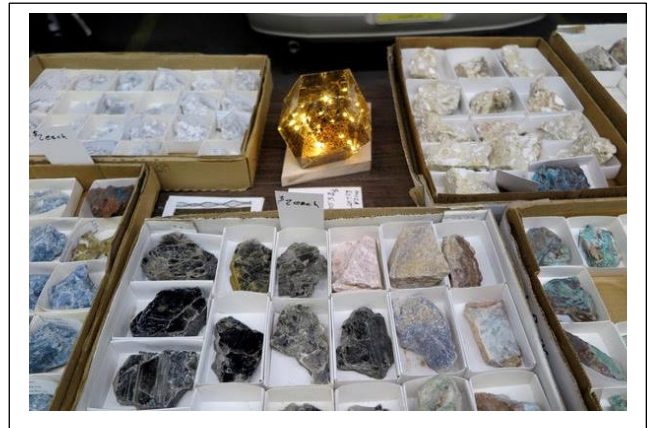




"Rock Doc" Dave Millis busy at work creating things out of mica sheets.



This is the house Dave built!



And an airplane, too!

**In The News...****Buyer of \$15.7M Diamond 'Bagged a Bargain' Sale of 'conflict-free' diamond breaks multiple records**

By [Rob Quinn](#), Newser Staff  
Posted Oct 5, 2020 3:36 PM CDT

**(NEWSER)** – An anonymous bidder got a gem of a deal Monday when they snapped up a flawless 102-carat diamond for \$15.7 million, experts say. The sale of the diamond found in northern Ontario in 2018 broke multiple records, the [CBC](#) reports. It broke the record for a diamond sold at an auction that involved online bidding by more than \$13 million, and the gem was the most expensive Canadian diamond ever sold. It was also sold without a minimum bid price, apparently in an attempt to spark a bidding war.

Sotheby's said it was "difficult to overstate" the "rarity and beauty" of the gem, which is around the same size as an egg. Only seven other flawless, colorless diamonds over 100 carats have been sold at auction before – and none before now were sold without a reserve price. The stone is among several enormous diamonds unearthed in recent years in Canada, where diamond-rich areas weren't discovered until the 1990s.

**Oregon researcher IDs 4 new wasp species that lived 25 million years ago**

by KVAL STAFF Wednesday, September 30th 2020

Corvallis, Ore. (KVAL) – A researcher has identified four new species of "parasitic, cockroach-killing ensign wasps" that lived 25 million years ago and were preserved in amber, Oregon State University announced this week.

"Some species of ensign wasps have even been used to control cockroaches in buildings," OSU researcher George Poinar Jr. said. "The wasps are harbingers of cockroaches – if you see ensign wasps you know there are at least a few cockroaches around. Our study shows these wasps were around some 20 or 30 million years ago, with probably the same behavioral patterns regarding cockroaches."

*The two of them must have formed an alliance, because those wasps certainly didn't do their job!*

**Discriminating Fossil Preparations**

Services provided by Stephen Mayer

Contact through Facebook Messenger

Email: [StephenMayer054@gmail.com](mailto:StephenMayer054@gmail.com)

Cell: 585-943-5058



Front



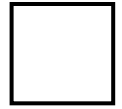
Back

*Naticonema lineata* feeding on the waste products (coprophagous adaptation of eating fecal matter) of the crinoid *Taxocrinus* sp. Note the *Paleschara incrustans* bryozoans encrusting the gastropod. Deep Run Shale Member, Finger Lakes, New York.



Gem and Mineral Society of Syracuse  
 P.O. Box 2801  
 Syracuse, NY 13220  
 First Class Mail

Time Dated Material



[www.amfed.org](http://www.amfed.org)   [www.amfed.org/efmls](http://www.amfed.org/efmls)   [Future Rockhounds](#)

Eight people organized the Gem and Mineral Society of Syracuse in 1951. Since that time it has grown in membership to include adults, families, and young folk. The Society was incorporated in 1969 under the same name.

The objectives of the Society are to stimulate interest in mineralogy, paleontology, and the lapidary arts. Member interests include collecting, identification, and display of minerals, gems, fossils. Members share and develop their artistic skills in jewelry design and creation.

Our monthly meetings provide social and educational experiences. Field trips give collectors chances to find specimens and enjoy the out of doors, exercise and time with old and new friends.

**Meetings - 3<sup>rd</sup> Monday of the month**  
**Future Rockhounds @ 6:30 - General Meeting @ 7:30**  
**(NO Meetings Jul, Aug, Dec)**  
**209 Oswego St (Ponderosa Plaza) Unit 14 & 15, Liverpool, NY**  
**Visitors are ALWAYS welcome!**

See online Newsletter <http://gmss.us/resources/newsletter>  
 You can also visit our facebook and flickr pages  
**Annual member dues**  
**Adult \$10 • Family/Couple \$15 • Junior \$5 • Life \$5**

If you would like to join or renew membership download the application form (PDF), see <http://gmss.us/about/membershipform.pdf> You can get a form at a meeting or send requests to **GMSS, PO Box 2801, Syracuse, NY 13220** We will mail an application/renewal form to you.

## 2020 – 2021 GMSS Officers/Contacts

### **-President:**

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### **-Vice-President:**

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### **-Treasurer:**

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### **-Jr Rockhounds:**

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**-Membership Chair:** Donna Dow

**-Sgt at Arms:** John Sweeney [sgtatarms@gmss.us](mailto:sgtatarms@gmss.us)

### **-GemWorld Show Chair:**

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### **-Club Librarian:**

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### **-Lapidary Committee Contact:**

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### **-Newsletter:**

Larry Petry 315-472-9226 [editorgmss@gmail.com](mailto:editorgmss@gmail.com)

### **-Website:**

Rick Moore [webmaster@gmss.us](mailto:webmaster@gmss.us)

**-Facebook:** Judy Cook

### **-Photographers Extraordinaire:**

Judy Cook, Steve Albro

### **-Hospitality Committee Chair:** Mary Davis

315-885-4416 [shos2gou@gmail.com](mailto:shos2gou@gmail.com)