

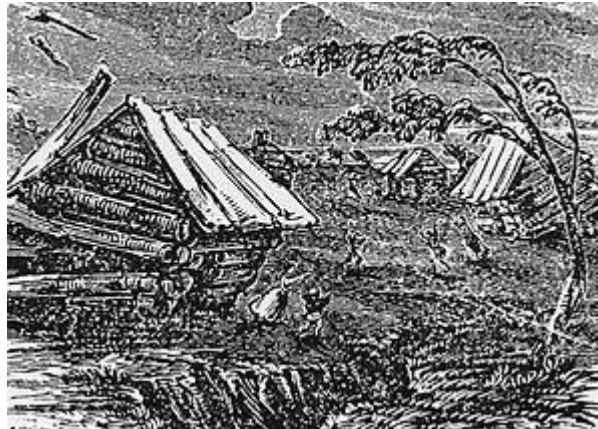
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Gem & Mineral Society of Syracuse, PO Box 2801, Syracuse, NY
web <http://www.gmss.us> Volume 50 Issue 11, November 2020
209 Oswego St (Ponderosa Plaza), Unit 15, Liverpool, NY

November 16 Meeting, 7:30 pm @ the Clubhouse

**Len Sharp Presents:
Historical Earthquakes in North America,
from 1811 to the Present**



The Great Earthquake at New Madrid, a 19th-century woodcut from Devens' Our First Century (1877)

In 1992-93, while on Sabbatical from Liverpool HS, Len was invited to be a participant in an Honors Field Program at University of Missouri to study the ravages of the strongest earthquakes in the continental U S: The 1811-12 Earthquakes of the New Madrid Earthquake Zone in Southeastern Missouri. Later he was granted a National **Sci(ence)-Mat(hematics)** Grant by the National Science Foundation and National Education Department to further research, via field experiences and literature review, Historical Earthquakes in North America from 1811-present. This was developed into a written paper and comprehensive PowerPoint Program. This project has been at both the state and national levels. Len was also an educational/science consultant for the National Center for Earthquake and Engineering Research Center at the University of Buffalo.

**SEATING IS VERY LIMITED – YOU MUST CALL
KRIS 315-487-5202 TO RESERVE YOUR SEAT**

“Discover The Fun Of Backyard Geology” (Part Two) – Page 6

President's Message

Dick Lyons



As noted in this newsletter, **Len Sharp** will be speaking about earthquakes in the United States since the 1800s. At our board meeting on Wednesday, the question was asked if a speaker cancelled at the last minute what will we do about a replacement speaker. I suggested that I could talk about the West Point Mint

quarters minted since the beginning of 2019. There was **no** support for this subject. *Please let the board members know if you have any suggestions for a future speaker.*

Because of the limited space of our clubhouse for meetings, we need you to contact Kris Boronczyk to make a reservation for the meeting. His phone number is (315) 487-5202. This is in case you did not read the first page of our newsletter.

If you are not going to attend our November meeting, you must call Kris to make a reservation by Friday, November 20th for our **December Holiday Party**. You must then send your check to our Post Office Box address. The cost is \$20 for members and \$25 for non-members.

Ken Armstrong, one of our show dealers, was planning on having a show in December at the New York State Fairgrounds. That show has been cancelled. I spoke to Ken Thursday AM, Nov. 5th. He told me that several of the Tucson shows are still going to happen. He has recently been a dealer at a New Jersey show and additional shows in the South. He thinks the November Buffalo show will be cancelled. I told him that the Corning show is still on for November 13th & 14th.

Please stay safe. When you are out in public, wear a mask and try to keep at least 6' apart.

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 & Mineral Society of Syracuse Board Minutes November 4, 2020

The GMSS Executive Board met Wednesday, November 4, 7:00 PM at the club house instead of the usual first Tuesday of the month due to Election Day. In attendance were 10 Board members and guests.

Treasurer's Report – Mary Davis

Our rent for the club house is paid through October. Nine vendors for our upcoming 2021 show have paid rental fees. We added 2 new members at our last month's meeting. Some members have paid for the December 6 Christmas Brunch party at Bella Domani in North Syracuse. Office supplies were purchased. The treasurer's report was accepted.

Vice President's Report - Kris Boronczyk

There will be no field trips scheduled for the remainder of the year. The **November 16 club meeting** will feature Len Sharp who will speak about earthquakes occurring in the US since 1811. **Please call Kris (315-487-5202) to register if you plan on attending this meeting. Space is limited.**

Christmas Brunch, Sunday Dec. 6, noon – 4:00. Cost is \$20 for GMSS members and \$25 for guests. The menu includes BBQ pork sliders, macaroni and cheese, with sides of macaroni salad, fruit salad, broccoli raisin salad, and roasted seasonal vegetables, soda, coffee, tea. **You may send in your money to the club address to reserve your place.** We need a minimum of 20 attendees.

Lapidary Committee Report

Steve Shorey continues to open the clubhouse Wednesdays for those using the lapidary equipment. There is a \$5 fee to use the machines and prior training in their use and their maintenance is required.

Junior Rockhounds

No meetings for the junior members are scheduled.

Hospitality Committee – Mary Davis

At this time, due to the corona virus the club will NOT be serving refreshments.

EFMLS Convention

This year's convention October 23-26 was held in Hickory, NC. The host club did not hold their normal show due to COVID but the Federation business meeting was held via Zoom. Delegates Dick Lyons and Kris Boronczyk said the meetings were informative. These are difficult times. We will host the Eastern Federation Convention at our show July 10-11, 2021. We hope all systems will be go by next summer but there are no guarantees.

(Continued on next page)

New Business

- Mark Grasmeyer mentioned Kingsley North Lapidary Company is having a sale on a 15 lb. rock tumbler/polisher. He suggested we might be able to tumble our own rough material that is used in the club booth and elsewhere, with this machine. John Sweeney said he thought he might have a tumbler the club could use. A vote on the purchase of the tumbler was tabled for a later date.
- A projection screen needs to be purchased for future meetings where a slide/computer projector is used. It was a bit difficult to see images at last month's meeting using the wall. A vote on purchasing the screen was tabled for a later date.
- **BOCES Lapidary Class taught by John Sweeney is starting immediately, November 11, 2020. Anyone interested in taking the 6-week class needs to act quickly by calling BOCES.**

The meeting was adjourned at 8:06 PM.

Respectfully submitted,
Cathy Patterson Club Secretary



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 November meeting
OR follow instructions on Page 2.**

Geo Lexis (Puzzle) By Anne Fitzgerald

“Frozen Fossil Finds”

Frosty, foggy mornings make me think of ferns and flowers. Full of life one day, they are without life just a few days after freezing. But if they are lucky enough to fossilize, they become a gift to the future.

Fossils have been found in Antarctica with evidence that the poor victims were trapped, frozen, and then were preserved in the ice for millions of years.

Unscramble the following to find once-living things found fossilized after freezing.

The solution is on Page 7 of this newsletter.

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Upcoming Events

November 13 – 15 GemStreet USA in the Grange Building at the Erie Co. Fairgrounds, Hamburg, NY – **CANCELLED**

November 14 – 15 Crystal Fest Fall Gem, Mineral & Fossil Show – Nassar Civic Center, 100 Civic Center Plaza, Corning, NY. Sat. 10 am – 6 pm; Sun. 10 am – 4 pm. Adults \$3, Children 12 and under & Scouts in uniform FREE with adult. Facebook.com/Flgmfc

November 16 – GMSS meeting – 7 pm
“Historical Earthquakes of North America, from 1811 to the Present” by Len Sharp.

(Continued on next page)

December 5 – 6 NY Gem, Mineral, Fossil & Jewelry Expo at the NYS Fairgrounds, Syracuse - **CANCELLED**

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

January 18, 2021 GMSS meeting - 7 pm the "Rock Doc," Dave Millis.

January 25, 2021 – 1st NYS Fair Show Committee meeting – 7 pm at the Club House.

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.

November: Topaz & Citrine

November is another month that has two birthstones.



Imperial Topaz In Iron-rich matrix, Brazil
© www.johnbetts-fineminerals.com.



Swiss Blue Topaz, irradiated
GemSelect

Topaz The word "topaz" is derived from the Greek word *Topazios* or *Topazion* for the ancient name of St. John's Island in the Red Sea. A yellow gemstone that was mined there is now believed to actually have been chrysolite. It may also come from the Sanskrit word *tapas*, meaning "fire" or "heat."

The Egyptians wore yellow topaz to represent their sun god, Ra. In medieval times Saxon rulers wore topaz breastplates and jewelry. It was believed attaching the stone to the left arm protected wearers from any curse and warded off the "evil eye." The ancient Greeks believed topaz gave them strength; ancient Romans believed it provided protection from dangers in travel. terrors of the night and had special healing powers. In Europe during the Middle Ages, it was believed topaz enhanced mental powers, and in the Renaissance people believed it could break magic spells and dispel anger.

Topaz is a silicate mineral of aluminum and fluorine. It is a mineral found commonly in pegmatites, veins of granites and other igneous rocks. In its natural state it is golden brown to yellow, which can be confused with citrine (see below). Various impurities can create a wide range of colors. Topaz has a hardness of 8 on the Mohs Hardness Scale, making it third in hardness, after diamond and sapphire.

The Ural Mountains of Russia was a leading source of topaz in the 19th century. Now Brazil is one of the largest producers of quality topaz gemstones. (Continued on next page)

Other sources include Afghanistan, Australia, Myanmar (Burma), China, Ethiopia, Germany, Japan, Madagascar, Mexico, Nigeria, Pakistan and Sri Lanka. In the United States topaz can be found in

California (San Diego County), Colorado (El Paso and Park counties), Nevada (Mineral County), New Hampshire (Carroll County), Texas (Mason County), Utah (Juab County) and Virginia (Amelia County).

Topaz is a common and inexpensive gemstone. The various colors can be used as rings, earrings, necklaces, pendants, and bracelets. Since topaz tends to break along cleavage planes, care is needed to avoid chipping or cracking. Don't use steam cleaning or ultrasonic cleaners; warm, soapy water is best.



Amber-brown citrine crystal
from Brazil

© www.johnbetts-fineminerals.com.



Brown citrine

[Africa Gems](#)

Citrine The word "citrine" is derived from the French word *citron* meaning lemon, as well as the Latin *citrina* meaning yellow. Citrine is a variety of quartz with a color range from pale yellow to brown due to iron impurities. It has often been confused with yellow topaz, but they differ in hardness.

In ancient times, people believed the gemstone could calm anger, soothe tempers and display desires, especially prosperity. To use these powers, Egyptians used citrine as talismans, the Greeks carved iconic images into them, and Roman priests designed it into rings.

The mineral quartz occurs in igneous, metamorphic and sedimentary rocks, as well as mineral veins with metal ores. Citrine's hardness is 7 on the Mohs Hardness Scale.

Brazil is the largest producer of citrine. Other sources include Argentina, Bolivia, Madagascar, Mexico, Russia, Spain and Zaire. In the United States it can be found in California, Colorado and North Carolina.

Citrine is a very affordable and durable gemstone, and all its color ranges are not expensive. It can safely be cleaned with warm, soapy water.

Citrine can be cut into all different types of gems, especially oval and rectangular cuts. It is a very popular pendant stone. It is used as a centerpiece for rings, and for earrings, bracelets, and necklaces. Lesser quality citrine combined with white quartz is also tumbled and used as beads for necklaces and bracelets.

Discover The Fun Of Backyard Geology

[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 Two)

Find the Perfect Place to Dig

Now that you have supplies, it's time to find that perfect digging spot. It could be in your backyard or front yard, but if you have a well-manicured lawn with soil that doesn't have rocks anymore, you may need to branch out in your quest. If your yard already has some rocks poking through the soil, that's a great place to start. Streams, ponds, or rivers are also great places to find rocks easily.

Think about other places you could go to. How about a park or campground? Friend's or relative's house? If you go on private property,

(Continued on next page)

always ask permission and research local laws and regulations about digging or removing property at parks or other public places.

Before you start digging, make sure you and your kids have done some research (what every good scientist does) about your particular area – what kind of minerals and rocks can you expect to find? Is there a nature center nearby? Some display examples of minerals and rocks you could encounter and might have brochures you can take with you to help identify your finds.

You may want to buy a rock and mineral identification book or borrow one from the library. Or, if your digging location has internet reception, you can let your Google fingers fly. Keep in mind, however, that there are some locations in nature parks where you won't have any phone or internet reception.

Before digging in a yard, take the time to locate where your cable, phone, water, sewer, and electric lines are buried. While most of the lines are buried deeper than you may be digging, some lines like cable are closer to the surface, and you don't want a shovel to slice through one of those.

Let's Explore and Dig

Take stock of the weather and dress accordingly for your time in the elements. You may need to pack sun-shade hats, sunglasses, and sunscreen. If you're meandering through a park, wear hiking shoes or ones with good tread. Pack snacks and plenty of water and have a GPS app on your phone in case you go off the trail. A backpack with your essentials and portable geology tools is a great idea. Don't forget your notebook and a couple of pens. If your kids bring an electronic tablet, charge the battery and make sure they don't drop it on the hard rocks. Keep paper and pen as a backup. All good scientists have a backup plan.

If you're in your yard, start somewhere that's not near the back door and doesn't damage existing landscaping or the roots of plants or trees. As you or your kids gain skills in geology exploration, you'll learn how to leave the ground looking less disturbed.

Start your hunt for minerals and rocks.

What Did You Find?

Use the shovel to dig for minerals or stones. Start collecting loose stones and soil samples to sift for smaller rocks. As you go along, examine each stone and record information about each stone, including location and depth it was found, the exact color, and its overall appearance. Is it smooth, jagged, rough, etc? Clear the dirt from the stone and wash it with the water to get a better idea of its color. Once you've clearly identified the stone, you can add more specific details later, like its weight and precise measurements.

Use your magnifying glass for close examination. Each rock can be a mix of lots of minerals, so its outer appearance may not tell the whole picture. The next thing you'll do is what's called a strike test. Scrape the stone across your piece of tile, glass, or coffee mug to reveal the true color. If you observe a scratch on your tile or mug, you know that the mineral is harder than the tile or mug, so make a note of that. Take photos to document.

Now it's time to bring some more science into play by assessing just how hard the stone is. You'll do this by using techniques from the Mohs Hardness Scale. The fingerprint test comes first: scratch the stone with your fingernail. If you leave behind a mark on the stone, it's a soft rock measured at about 2.5 Mohs. Now, it's time to break out more of your tools. Scratch the stone with the penny, glass, and porcelain. The harder the substance, the higher its Mohs number will be. You can find lots of information about the Mohs Hardness Scale and testing by visiting the Mohs Hardness Scale.

The harder a substance is, the more commercial value it has. The hardest substance, at 10 Mohs, is a diamond. There are also gems and other stones out there but you probably won't find those in your backyard, however.

(Part Three Next Month)

Answers to Geo Lexis

mothamm mammoth

cerosonih rhinoceros

guinneps penguins

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mostaid diatoms

tiness insects

Sources and Further Reading:

<https://sciencing.com/frozen-fossil-7208895.html> (David Dunning)

National Science Foundation. "Antarctic Fossils Paint Picture Of Much Warmer Continent." ScienceDaily. ScienceDaily, 6 August 2008.

<www.sciencedaily.com/releases/2008/08/080805124052.htm>

In The News...

Neil deGrasse Tyson warns asteroid could hit Earth day before election

By Jackie Salo October 18, 2020 | 12:32pm | Updated

NEW YORK POST

An asteroid with a diameter the size of a refrigerator could strike the Earth the day before the November election, according to celebrity scientist Neil deGrasse Tyson — but it's not large enough to do any serious damage.

Another prediction that was wrong, but, oh how we wish...

Asteroid Thought to Be Worth \$10,000,000,000,000,000

16 Psyche thought to be massive chunk of iron and nickel

By Arden Dier, Newser Staff Posted Oct 30, 2020 12:26 PM CDT

(**NEWSER**) – Somewhere between Mars and Jupiter is a potato-shaped space rock possibly worth way more than the entire economy of Earth. Italian astronomer Annibale de Gasparis discovered the Massachusetts-sized asteroid known as 16 Psyche lurking in the main asteroid belt between Mars and Jupiter in 1852, per Fox News.

New observations courtesy of the Hubble Space Telescope suggest that unlike most other asteroids,

which are made of rock or ice, this 140-mile-wide asteroid is made almost entirely of metal—specifically, iron and nickel—and worth an estimated \$10,000 quadrillion. You need 19 zeros to write that number out in full. More important to scientists, however, are the possible clues to the origin of the universe that may lay hidden in its folds, some 230 million miles from Earth.

Now, why couldn't THAT one hit the Earth?

A 12-year-old found a 69 million-year-old dinosaur fossil while hiking with his dad

By David Williams, CNN Oct 16, 2020

Nathan Hrushkin has wanted to be a paleontologist for as long as he can remember, and the 12-year-old has already made a significant discovery. He found a partially unearthed dinosaur fossil while hiking with his dad this summer at a conservation site in the Horseshoe Canyon in the Badlands of Alberta, Canada.

The fossil was a humerus bone from the arm of a juvenile hadrosaur — a duck-billed dinosaur that lived about 69 million years ago, **according to a news release** from the Nature Conservancy of Canada.

Nathan said the fossil was very obvious and it looked like "a scene on a TV show or a cartoon or something."

It's a GOOD thing to bring your kids when you go hiking!

Pair of studies confirm there is water on the moon

New research confirms what scientists had theorized for years — the moon is wet.

By Ben Guarino and Joel Achenbach Oct. 26, 2020 4:13 p.m. EDT
The Washington Post

There is water on the moon's surface, and ice may be widespread in its many shadows, according to a pair of studies published Monday in the journal Nature Astronomy. The research confirms long-standing theories about the existence of lunar water that could someday enable astronauts to live there for extended periods.

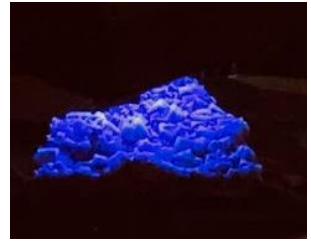
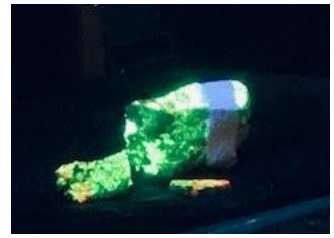
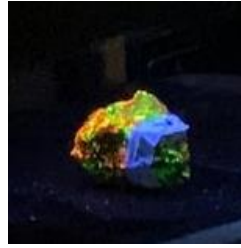
Moon water has been eyed as a potential resource by NASA, which **created a program** named Artemis in 2019 to send American astronauts back to the moon this decade. Launching water to space costs thousands of dollars per gallon. Future explorers may be able to use lunar water not only to quench their own thirst but to refuel their rockets. *Who will be the first to bottle Moon Water – "the taste is out of this world!"*

**October 19, 2020 – Susan Sharp presented
“Radioactive and Fluorescent Minerals”**

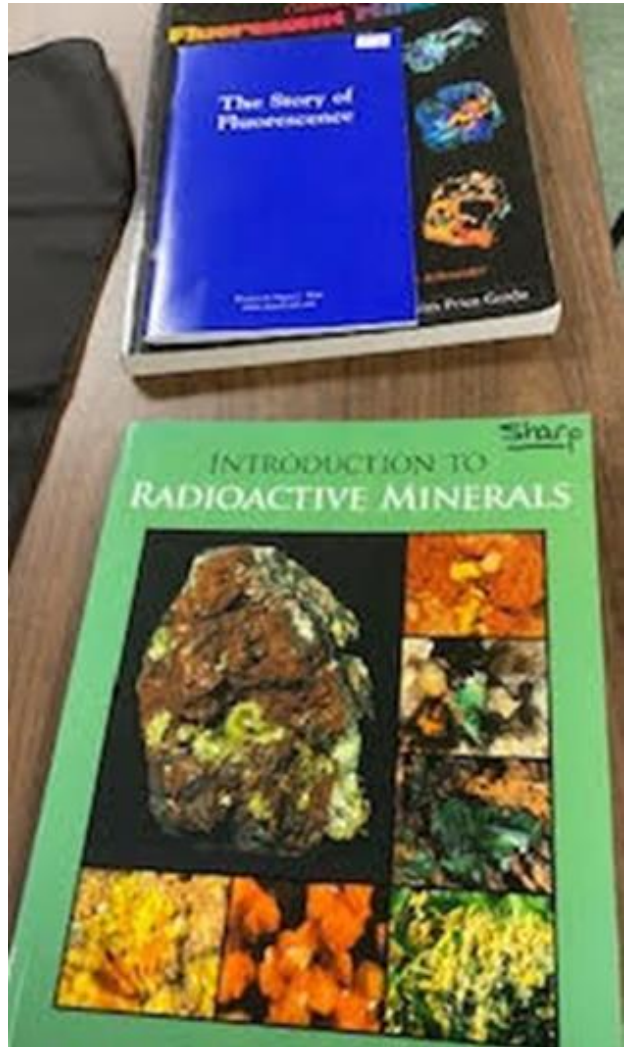
Photos by Judy Cook



Susan Sharp displays her collection of fluorescent and radioactive minerals in normal visible light. A video of her presentation is available on our Facebook page <https://www.facebook.com/gmss.us> (October 23). Following the presentation, the Sharps donated their collection to the GMSS. Thank you!



The various minerals under short/long wave UV light.



In The News...

Tectonic plate 'lost' for 60M years found hiding under Pacific Ocean

By Chris Ciaccia, Fox News October 23, 2020 | 3:38pm | [Updated](#)

A tectonic plate "lost" for 60 million years under the Pacific Ocean has been reconstructed by scientists at the University of Houston.

Known as Resurrection, the plate has been a controversial topic among geologists because many believe it never existed. Others believe it may have directly resulted in the volcanoes in the Pacific Ocean, known as the Ring of Fire.

The researchers used a computer model of the Earth's crust to reconstruct the plates of the early Cenozoic era, which started 66 million years ago, not long before the mass extinction event that resulted in the death of the dinosaurs.

At the time, there were two tectonic plates in the Pacific Ocean, the Kula and the Farallon. These plates have long since slid underneath the Earth's crust, a process known as subduction.

In 2013, a separate group of researchers found evidence that the Farallon is still present in central California and Mexico.

Oh, so THAT'S where we left it!

Discriminating Fossil Preparations

Services provided by Stephen Mayer

Contact through Facebook Messenger

Email: StephenMayer054@gmail.com

Cell: 585-943-5058



Front



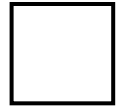
Back

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
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Time Dated Material



www.amfed.org 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 - 3rd 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

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