

# The Living Stones

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Livingston Gem and Mineral Society June 2025



## President's Message

Why do squirrels collect rocks? Squirrels collect rocks to save winter food stock, sharpen their teeth, build nests, and mineral and salt consumption. In addition, they also use them to mark their food storage location and territories. They pick the rocks from parking lots, gardens, driveways, and rivers.

These animals are picky about their rock collection, and first they lick them for their selection. Squirrels use these stones for self-defense when making nests in trees and throw them on predators from the trees for their defense.

They use them as a tool to break the shells of nuts.



### June shop hours

Monday 10 am-9 pm

Tues and Wed 9 am-9 pm

Thurs 9 am-9 pm (silversmiths only)

Friday 10 am-4 pm.

(If there are not 2 members in the shop on Mondays and Fridays, the closer may choose to leave early. Be aware.) There must be at least 2 people in the shop at all times to use the machines for safety reasons.

Hello Rockhounds,

We had 30 members and 2 guests attend the general meeting this month and most stayed for the "Rock of the Month". The topic was blue rocks and minerals. We had a lot of specimens, rough and cabs to look at. Members brought in some beauties.

We are getting ready for the spring pop up show at the end of the month in Waterford. We need volunteers to help. A signup sheet will be in the shop next week.

We will start working on the fall "Rockhounds' Dream Show" as soon as this pop up show is over. The first fall show planning meeting will be held at the shop at 5:15 right before our general meeting at 6:00pm on Tuesday, June 17th. This will be our 50th anniversary and we would like to do something special for this show. Bring your ideas to the next meeting. All members are expected to work the annual fall show and donate a rock related item for the Raffle/silent auction. Each item needs an information sheet to go with it. They are located on the display case by the office. You can leave your donated items in the office. This show is how we make our money to keep the shop running for the following year.

*Terri Ridenour*, President

## General Meeting Minutes

Date: May 20, 2025

Location: LGMS Workshop

### I. Call to order: 6:00pm

**II. Roll Call:** Present- Bryant Hiiter, Cari Jacob, Jim Johnson, Bill Magee, Terri Ridenour, Max Runnels, Linda Sheedy.

Absent- AnnMarie McFadden, Joe Musolf, Cinda Wilson.

Present: 7 Absent: 3 Quorum: 6

Club Members: 30 Guests: 2

**III. Approval of Agenda:** Jim Glassbrook made a motion to approve the agenda as written, 2nd by Cari Jacob. All in favor. Motion passed.

**IV. Approval of Minutes:** Autumn Kennedy made a motion to approve the April 15, 2025 minutes, 2nd by Lindy Sheedy. All in favor. Motion passed.

### V. President's Report: Terri Ridenour

The school gave us permission to use the display case outside of the shop's back door that has the club's name already on it. Bryant was asked if he would like to help put in a rock display.

A big thank-you to Mark Ridenour and Joe Musolf for keeping those saws cutting slabs for the club members to purchase. We have done well with the sales.

Our 4H training went well; the kids had a great time with their lapidary and silver projects. A big thank-you to Bryant Hiiter for keeping these classes going year after year.

I want to thank these members for training the 4H kids- Bryant Hiiter, Mark Ridenour, Jim Hansen, Nancy Bartel, Joe Musolf, James Musolf, Dan Goodwin, Autumn Kennedy, Ann Marie Mc Fadden and Lavonne Foldenauer.

### VI. Vice President's Report: absent

**VII. Treasurer's Report:** Linda Sheedy. All is in good standing.

## VIII. Old Business

**A. Pop Up Show:** May 31, 2025. We have 17 vendors. 13 are members, 4 nonmembers. We need help with picking up rocks from storage unit, set up & break down, club table, security. A signup sheet will be in the shop.

**B. By Laws:** Cari Jacob, the By Law Chairperson read all the changes that the committee had recommended, the board approved the changes. A motion was made and passed, but there was a mistake in the motion so it will not pass. The by law changes will have to be voted on again at the next general meeting.

**C. Inlay Class:** May 29 & May 30. The shop will be closed to all members except those taking the class. More classes for inlay will be offered soon if there is an interest from club members.

## IX. New Business:

### 1. Dream Show:

- \* Fall show meetings will start in June at 5:15, 45 minutes before the general meeting.

- \* Every member is required to donate an item for the show's auction/raffle.

- \* Every member is expected to work the show.

- \* There are donation sheets on top of the show case by the office. Please fill them out and keep with the donated item.

- \* This is our 50th show. We would like to do something special for our show, so bring your ideas to the next meeting.

2. Shop will be **closed for Memorial Day**, Monday May 26, 2025.

## X. Membership Report- Linda Sheedy & Cari Jacob

- \* We have 246 paid members.

- \* Cari handles the incoming request to join the club. We still have a few spots on SignUpGenius for training that have not been taken so she will reach out to those on the list.

**XI. Shop Foreman-** Bill Magee.

- \* Bill's first day back to the shop.
- \* Bill had to fix one loose nut on the saw.

**XII. Silversmith Report-** Lavonne Foldenauer.

Ordered and received a silver purchase.

**XIII. 1st & 2nd Year Directors**

- \* Max Runnels advised that he has been working on shells lately and it's been fun. He told members about the necessity to use a mask and lots of water, to avoid shell particles getting into your lungs.
- \* "Rock of the Month" for tonight is blue. We have a nice display of blue rocks and minerals.
- \* "Rock of the Month" for June will be yellow.

**XIII. Trip to the U.P.**

Nancy Bartel and Autumn Kennedy described some of their trip to the UP, specifically noting "The Hill". This was not a bad drive to the hill the first time they went. The second time the road was rougher. The hill was really a cliff with 90 foot drop down the sandy slope to the lake. Jason decided to make his trip to the lake a quick one. They had dinners together and had a great time rock hunting. They found a lot of agates and Yooperlites. Crispus found the largest Yooperlite and brought to the meeting to show us.

This will probably be an annual trip. The biggest downfall is not having good phone service. Patsy's Rock Shop has good stuff according to Ted Vosburgh.

**XV. Adjournment:** Mark Ridenour made a motion to adjourn the meeting at 6:55pm; 2nd by Ed Oller. All in favor. Motion passed.

Respectfully submitted by

Max Runnels, Recording Secretary  
Terri Ridenour, Guest Secretary

**2025 Officers and Chairpersons**

**President:** Terri Ridenour 517-376-2190

**Vice President:** Joe Musolf: 906-231-7632

**Secretary:** Cinda Wilson 810-423-0464

**Treasurer:** Linda Sheedy 248-425-9686

**Immediate Past President:** Cari Jacob  
248-931-5999

**Shop Foreman:** Bill Magee 734-981-6117

**First year Directors:**

Bryant Hiiter: 248-472-8481

Max Runnels: 810-869-0740

**Second year Directors:**

Jim Johnson 810-923-6113

AnnMarie McFadden 248-884-8126

**Newsletter:** Isla Mitchell, 248-685-7804,  
imvm.1@netzero.com

**Historian:** Chuck Amberger, 248-787-6586

**Library:** Bryant Hiiter, 248-472-8481 **Webmaster:**  
John Myer, www.livingstongems

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

show website: lgmsrockshow.com

Instagram: livingstongems

General Membership Meetings are held monthly on the 3<sup>rd</sup> Tuesday at 6 pm. (Except in January and February, when only the board meets.)

\*\*\*\*\*

**Rock of the Month**  
**June 17, 2025**  
**following the General Meeting**  
**Topic: YELLOW ROCKS**  
**Bring something unusual!**

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**T Shirts are in!**  
They are purple and green and fabulous!  
You may purchase the shirts S-2X- \$15  
and 3X-4X - \$18.

## Upcoming Events

**June 14, 2025**

### **Indian Mounds Rock and Mineral Club Rock Swap**

Woodland Drive-In Church, 2600 Breton Rd SE, Grand Rapids, MI 49546

Info: Kreigh Tomsizewski, 616-243-5851, [kreigh@gmail.com](mailto:kreigh@gmail.com), [www.indianmoundsrockclub.com](http://www.indianmoundsrockclub.com)

**June 21, 2025**

### **Northwest Ohio Rockhounds' Rock Swap and Sale, 10 am to 4 pm**

Fossil Park, 2705 Centennial Road, Sylvania, Ohio 43560

Info: [nwohiorockhoundsclub@gmail.com](mailto:nwohiorockhoundsclub@gmail.com)

**July 12, 2025**

### **Flint Rock and Gem Club's Rock Swap**

Parking Lot of Mott Community College, 4082 W. Vienna Rd, Clio, MI

Info: Bill Wendling 810-638-5796

**August 2, 2025**

### **Ishpeming Rock and Mineral Club's Annual Show**

Ishpeming Elks Lodge #447, 597 Lakeshore Dr., Ishpeming, MI 49849

Info: [krmaki75@gmail.com](mailto:krmaki75@gmail.com), [www.ishpeming.org](http://www.ishpeming.org)

*Safety reminders – Avoid any hair, jewelry, necklaces, loose clothing, etc. hanging forward when working with any machine, saw, grinder or torch. Hair bands, if needed, will be provided free near the sign-in sheet. (Please do not put used hair bands back.)*

*Foot protection – NO exposed skin on the feet, in case something sharp falls or drops or burning embers fall. (Flip flops, sandals etc.) You will be asked to get the proper footwear or leave the shop. Please wear comfortable shoes without slippery soles that can get dirty or wet.*

## **2025 LGMS GENERAL MEMBERSHIP MEETING DATES**

Please be aware that during membership meetings the shop will be totally shut down.

Month	2025 date	Time	Meeting type	Location	
6	6/17	6 pm	General Membership <b>fall show planning meeting at 5:15</b>	LGMS shop	Shop shut down at 5:45
7	7/15	6 pm	General Membership	Settlers Park	Shop shut down at 5:45
8	8/19	6 pm	General Membership	Settlers Park	Shop shut down at 5:45
9	9/9 (one week early)	6 pm	General Membership before fall show on 9/20-9/21	LGMS shop	Shop shut down at 5:45
10	10/21	6 pm	General Membership	LGMS shop	Shop shut down at 5:45
11	11/18	6 pm	General Membership	LGMS shop	Shop shut down at 5:45
12	12/16	6 pm	General Membership during Holiday Party	Senior Center	Shop shut down at 5:45

# CHEMICAL COMPOSITION OF GEMSTONES

THE COLOURS OF GEMSTONES ARE AFFECTED BY DIFFERENCES IN CHEMICAL AND ATOMIC STRUCTURE, LEADING TO THE ABSORPTION OF DIFFERENT WAVELENGTHS OF LIGHT. THEIR HARDNESS IS MEASURED ON THE MOHS SCALE, WHICH RUNS FROM 0-10.

			
<b>ALEXANDRITE</b> $\text{Al}_2\text{BeO}_4$ Hardness: 8.5 Colour caused by chromium ions replacing aluminium in some sites. Colour varies in different light.	<b>AMETHYST</b> $\text{SiO}_2$ Hardness: 7.0 Their colour is caused by iron $3+$ ions replacing silicon in some locations in the structure.	<b>AQUAMARINE</b> $\text{Be}_3\text{Al}_2(\text{SiO}_3)_6$ Hardness: 7.5-8.0 Colour caused by iron $2+/3+$ ions replacing aluminium ions in some locations in the structure.	<b>DIAMOND</b> C Hardness: 10 Colourless; can be faintly coloured by the trapping of nitrogen atoms in the crystal.
			
<b>EMERALD</b> $\text{Be}_3\text{Al}_2(\text{SiO}_3)_6$ Hardness: 7.5-8.0 Colour caused by chromium ions replacing aluminium in some locations in the structure.	<b>GARNET</b> $\text{Mg}_3\text{Al}_2(\text{SiO}_4)_3$ Hardness: 6.5-7.5 Colour caused by iron $2+$ ions replacing magnesium ions in some locations in the structure.	<b>OPAL</b> $\text{SiO}_2 \cdot n\text{H}_2\text{O}$ Hardness: 5.5-6.0 Many colours which are caused by interference & diffraction of light passing through the structure.	<b>PEARL</b> $\text{CaCO}_3$ Hardness: 2.5-4.5 Produced in the soft tissue of shelled molluscs. The thinner the layers of the pearl, the finer the lustre.
			
<b>PERIDOT</b> $\text{Mg}_2\text{SiO}_4$ Hardness: 6.5-7.0 Colour caused by iron $2+$ ions replacing magnesium ions in some locations in the structure.	<b>RUBY</b> $\text{Al}_2\text{O}_3$ Hardness: 9.0 Colour caused by chromium ions replacing aluminium ions in some locations in the structure.	<b>SAPPHIRE</b> $\text{Al}_2\text{O}_3$ Hardness: 9.0 Colour caused by titanium and iron ions replacing aluminium ions in some locations in the structure.	<b>SPINEL</b> $\text{MgAl}_2\text{O}_4$ Hardness: 7.5-8.0 A variety of colours are possible, caused by impurities such as iron, chromium and nickel.
			
<b>TOPAZ</b> $\text{Al}_2\text{SiO}_4(\text{F},\text{OH})_2$ Hardness: 8.0 Pure topaz gems are colourless & transparent, but tinted by impurities they can have a variety of colours.	<b>TOURMALINE</b> $\text{Na}_3\text{Li}_3\text{Al}_6(\text{BO}_3)_3(\text{SiO}_3)_6\text{F}_4$ Hardness: 7.0-7.5 Colour caused by manganese ions replacing lithium and aluminium ions in some sites.	<b>TURQUOISE</b> $\text{Al}_6(\text{PO}_4)_4(\text{OH})_8 \cdot 4\text{H}_2\text{O}$ Hardness: 5.0-6.0 Colour caused by the presence of copper ions coordinated to the hydroxide ions and water.	<b>ZIRCON</b> $\text{ZrSiO}_4$ Hardness: 7.5 A range of possible colours that depend on the impurities present. Colourless specimens are popular diamond substitutes.



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For more information & references, see [www.compoundchem.com/2014/06/28/gemstones](http://www.compoundchem.com/2014/06/28/gemstones)



Alexandrite.....Aluminum, Beryllium, Oxygen

Amethyst.....Silicon, Oxygen

Aquamarine...Beryllium, Aluminum, Silicon, Oxygen

Diamond.....Carbon

Emerald.....Beryllium, Aluminum, Silicon, Oxygen

Garnet.....Magnesium, Aluminum, Silicon, Oxygen

Opal.....Silicon, oxygen, nitrogen, hydrogen, oxygen

Pearl.....Calcium, carbon, oxygen

Peridot.....Magnesium, Silicon, Oxygen

Ruby.....Aluminum, Oxygen

Sapphire.....Aluminum, oxygen

Spinel.....Magnesium, Aluminum, Oxygen

Topaz.....Aluminum, Silicon, Oxygen, Fluorine, Hydrogen

Tourmaline.....Sodium, Lithium, Aluminum, boron, oxygen,  
silicon, fluorine

Turquoise.....Aluminum, phosphorus, oxygen, hydrogen

Zircon.....Zirconium, silicon, oxygen

**Livingston Gem and Mineral Society**  
**9525 E. Highland Road**  
**Howell, Michigan 48843-9098**



**General Membership Meeting**  
**Tuesday, June 17, 2025**  
**6 pm in the shop**  
**(fall show planning meeting at 5:15 pm)**  
**Snacks are welcome!**

Livingston Gem and Mineral Society was established in 1970. The annual membership fee is \$65.00 for adults and \$25.00 for youth ages 13-17.

There is an additional fee of \$1.00 per day for workshop use. Annual dues and annual shop fees are due on December 31 of each year.

The Livingston Gem and Mineral Society publishes The Living Stones. Non copyrighted articles may be reprinted provided that they are properly attributed.

Articles or correspondence can be sent to LGMS, Hartland Consolidated Schools, 9525 E. Highland Rd. Howell, Michigan 48843-9098.

**Our Mission**

The Livingston Gem and Mineral Society is a nonprofit organization and member of the Midwest Federation of Mineralogical Societies and the American Federation of Mineralogical Societies. Our purpose is to promote, through educational means, public interest and increased knowledge in the fields of mineralogy, archaeology, paleontology and the lapidary arts.