



Mid-Ohio Mineral and Fossil Club

# The LITHNICS

Volume 63 Issue 3

July 2025 2025

# THE LITHNICS



A QUARTERLY PUBLICATION OF  
THE MID-OHIO MINERAL AND FOSSIL CLUB  
MANSFIELD, OHIO



## CURRENT OFFICERS

PRESIDENT .....	Lawrence Hull
VICE-PRESIDENT.....	Jim Baumgartner
PAST PRESIDENT .....	Tom Kottyan
RECORDING SECRETARY.....	Pat Everly
TREASURER .....	Pam Kottyan
TRUSTEES.....	Jason Larson + Joel Likins + Lawrence Hull

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SHOP .....	Walt Upchurch
SHOW .....	Tom Kottyan and Jason Larson
SPECIAL INTERESTS .....	Joyce Kish, Susan Mathews, Bryan Summer
VIDEO/BOOK LIBRARY .....	Carolyn Kelly
LITHNICS EDITOR .....	Bryan Summer

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bryansummer1@gmail.com

# OUR CLUB

**PURPOSE:** The purpose of the Mid-Ohio Mineral and Fossil Club, is to create an interest in and study of the earth sciences and all lapidary arts and to afford an opportunity to share knowledge and working techniques with others.

## MEETINGS:

**General club meetings** are at 7:00 pm on the first Monday of the month at:

**Gorman Nature Center, 2295 Lexington Avenue, Mansfield, Ohio.**

If the first Monday falls on a holiday we meet one week later.

Visitors are always welcome.

**Special Interest Group (Classes) meetings** are held September through May at 7:00 pm on the second Monday of the month. See Special Interest Chair, Mike McCullough.

## CANCELATION OF A MEETING

If for any reason the club officers feel that a meeting should be canceled you will be notified by email as soon as possible. If Mansfield schools are closed so are we. If for any reason you don't feel safe to drive to a meeting, please, please stay home.

## Annual dues are:



<b>Adults</b>	<b>\$ 15.00</b>
<b>Children under 16</b>	<b>\$ 5.00</b>
<b>Family</b>	<b>\$ 20.00</b>

Dues are due Jan. 1st of every year. Whether you join in January, December, or any month in between, the cost is the same. Everyone's dues are due again the next January 1st .

**LITHNICS:** Our quarterly newsletter.

Permission is hereby granted to use any original **LITHNICS** articles, whole or in part, as long as proper recognition is noted with the reprint.

Club members are encouraged to make contributions to the LITHNICS.

Contact: Bryan Summer (bryansummer1@gmail.com)

# The Mid-Ohio Mineral and Fossil Club



## Presidents Message

Hello fellow mineral, stone + fossil collectors! This sure has been a very hot ☀️ and humid summer !!! I have seen a few pictures of some really nice Agates and Coppers collected this spring!! Kentucky, South Dakota, Michigan, Vermont and even Ohio have been explored!! Remember to drink a lot of fluids and don't overdo it while out collecting! I personally have been out collecting in temperatures in the 90s and heat can overcome you quickly! Take someone with you or at least let them know where you are going!!

Our club show in June was a lot of planning and hard work, but a great success! Our show cases are always a hit with everyone and this year was award winning again!!! 🏆 Joel gave us all a big scare this year with a (spider or something) bite!! He's such a good worker, he refused to go to the hospital until we forced him. Glad to know he's doing a lot better!! I got a lot of good feedback from a lot of people. The show is a great time to see what everybody has been collecting or working on this year. Our show theme was Lapidary Arts. We have a lot of talented people in our club!!

Our Club Trip to the Keweenaw Peninsula is coming up on August. Remember to let Bryan Summer know if you go somewhere and you have something to share that he can put it in the Lithnics. I've heard rumors of some going to Denver this fall for the big show and some collecting in that direction 💎 One of my favorite parts of the monthly meetings is seeing what people bring in and sharing their adventures.

Alrighty, I will stay in touch!! Hope everybody finds a treasure that they've been looking for. Remember, just a little bit of dirt hides a lot of nice treasures!!!!

*Lawrence Hull*

Mid-Ohio Mineral and Fossil Club President

**Upcoming Meetings – all meetings are at the Gorman Nature Center at 7:00 pm**  
**Continue to watch for information about future meetings in your email.**

- Monday, July 7                      7:00 Meeting Gorman Nature Center
- Monday, August 4                    7:00 Meeting Gorman Nature Center
- Monday, September 8                7:00 Meeting Gorman Nature Center
- Monday, October 6                    7:00 Meeting Gorman Nature Center
- Monday, November 3                7:00 Meeting Gorman Nature Center
- Tuesday, December 2                Annual Christmas Dinner Golden Corral 5 - 7

## **Area Events**

- Coshocton Flint Knappers Festival Fall                      Aug 29 - 31

## Sodalite Mineral Guide: Formation & Locations

May 30, 2025



Massive sodalite showing the royal blue color and the characteristic white streaking. Richard Gross

Sodalite derives its name from the sodium component in its chemical formula  $[\text{Na}_4\text{Al}_3(\text{SiO}_4)_3\text{Cl}]$ . It is part of the mineral group known as feldspathoids. It is similar to feldspars but contains less SiO. Sodalite is a six on the Mohs scale of hardness and is popular in the jewelry trade, used as cabochons, beads, and inlay material.

Sodalite is best identified by its royal blue color, although it can also be grey, yellow, green, or pink. It is often mottled with white veins or patches. Although rare, when crystals do present, they form in the cubic system usually as dodecahedrons. The fracture is uneven to conchoidal. Sodalite has a specific gravity of 2.3.

### Sodalite Vs. Lapis Lazuli

Sodalite can sometimes be mistaken for lapis lazuli since both have a beautiful blue color and can be found on blue gems lists. Both are part of the feldspathoids group. Sodalite is a mineral, specifically a feldspathoid silicate, whereas lapis is a rock composed of several different minerals, but primarily of lazurite. But beyond a glance, there are three differences between the two.

1. Sodalite is translucent or transparent. Lapis lazuli is opaque.
2. Lapis lazuli often has spots or veins of metallic pyrite.
3. Lapis lazuli is more fine-grained than sodalite.

### Where to Find Sodalite in the World

High-quality massive sodalite is found in Hastings County, Ontario, and in British Columbia. It is also found in the following locations: Afghanistan, Canada, China, Greenland, India, Italy, Mexico, Myanmar, Portugal, Russia, South Africa, United States.

### Famous Fluorescence



*Doug Julian*

Sodalite is a fluorescent mineral that glows when exposed to ultraviolet light. Syenite rocks containing fluorescent sodalite are one of eight popular rocks found on the Lake Michigan beaches, Lake Superior and even inland. They look innocuous in normal daytime light, gray and drab, but light up orange under ultraviolet light. These rocks go by different names, but the most famous is the Yooperlites of Michigan's Upper Peninsula.

Sodalite Mineral Properties at a Glance

- **Chemical formula:**  $Na_8(Al_6Si_6O_{24})Cl_2$
- **Crystal system:** Isometric
- **Hardness:** 5.5–6 on the Mohs scale
- **Luster:** Vitreous to greasy
- **Cleavage:** Poor
- **Fracture:** Uneven to conchoidal
- **Density:** ~2.27–2.33 g/cm<sup>3</sup>



*Sodalite cabochons are desirable in the jewelry trade. Richard Gross*

### How Sodalite Forms

Sodalite forms deep within the Earth in silica-poor igneous rocks, such as nepheline syenite and phonolite. These rocks come from alkaline magma, which contains more sodium and less silica than typical volcanic rocks. When this type of magma cools and solidifies, sodalite can grow, especially if there's also chlorine present, which is part of sodalite's chemical makeup.

It often appears alongside other rare minerals like nepheline, cancrinite, and leucite. In some cases, sodalite can also form in limestone that's been changed by metamorphism.

Notable places where sodalite forms include Bancroft and Mont-Saint-Hilaire in Canada, Greenland, and the Kola Peninsula in Russia. These areas have just the right mix of rock types and geologic conditions to allow sodalite to develop.

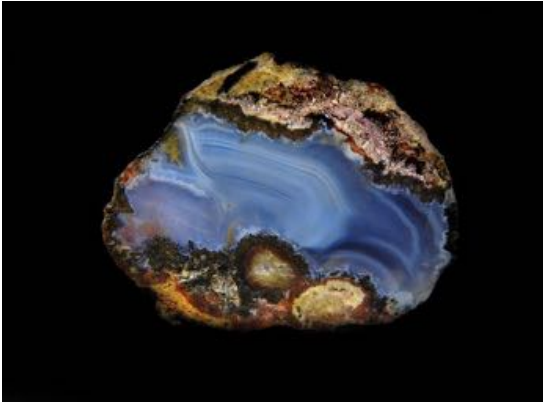
### Clear Thinking!

Sodalite is said to have metaphysical properties that help to boost confidence, enhance communication and intuition, decrease negative thoughts, and increase clear thinking. Sodalite is said to help balance emotions so some carry it in their pocket to stop mood swings throughout the day.

*Story by Richard Gross & Pam Freeman.*

# What is an Agate?

May 30, 2025



This agate nodule had an unusually shaped cavity that gave rise to this different agate. Richard Gross

## What is an agate?

Agate is a form of microcrystalline chalcedony quartz. It is the most popular type of chalcedony because of its banding, its brilliant colors, and numerous varieties. While banding is technically a requisite to be an agate it is common to refer to certain other forms of non-banded chalcedony as agate. Moss agate and eye agate are examples of non-banded chalcedony.

## What is an Agate Facts

Agate has a seven Mohs hardness, making it desirable in the lapidary trade. Agate is translucent and exhibits a vitreous luster. As with other varieties of quartz, its chemical formula is  $\text{SiO}_2$ . The name agate comes from the river Achatés in Sicily and was given that name by the Greek philosopher, Theophrastus. Agate names can be derived from the location where they are found such as Botswana agate or Laguna agate or because of a feature they exhibit like lace, fire or moss.

## How Agates Are Formed

Agate formation takes place when silica solutions fill voids in cavities layer by layer such as in Florida's agatized coral. The voids typically are in solidified volcanic lava flows and the layering over long periods of time can result in different colors because of chemical changes in the silica solutions. The layering can deposit the chalcedony in concentric circles around the wall of the cavity or build the layers up from the bottom of the cavity.

## What is an Agate? Properties At a Glance

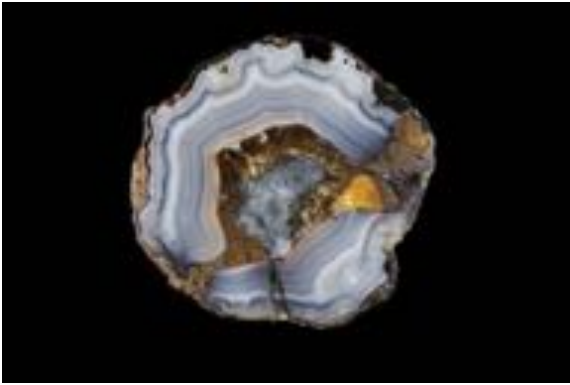
- **Composition:** Silicon dioxide ( $\text{SiO}_2$ )
- **Hardness:** 7 on the Mohs scale
- **Luster:** Vitreous (glassy)
- **Transparency:** Typically translucent
- **Structure:** Cryptocrystalline, comprising fine intergrowths of quartz and moganite
- **Fracture:** Conchoidal

## **Decorative Agates**

Agate is used to produce cabochons, beads, and free-form objects in jewelry making. Book-ends, ashtrays, and sculptures are also made using agate.

### **Positively Agate**

In the metaphysical realm, many wonder what is an agate and how can it help me. Agates are said to change negative energy into positive energy and to heal anxiety and internal anger. Agate may also help with concentration and boost mental function.



*Laguna agate is found near the tiny village of Ojo Laguna in Chihuahua state, Mexico. Richard Gross*

*This Baker Ranch agate was collected south of Deming, New Mexico. The contrasting colors make this agate collectible. Richard Gross*



## **Where to Find Agates**

In the United States, agates are found in Oregon, Wyoming, Montana, Arizona, Idaho, California, Washington, New Mexico, Iowa, Wisconsin, Michigan, Minnesota, Utah, Florida, Colorado, Arkansas, and Nevada. Around the world, they are found in Australia, Germany, Brazil, Czechia, Botswana, Mexico, Morocco, Afghanistan, Argentina, Canada, Chile, India, China, and over 40 other countries.

*Story by Richard Gross.*

## Paleontologists Uncover Near-Complete Dinosaur Skeleton Its Skin Is Perfectly Preserved

A groundbreaking fossil discovery in Alberta, Canada, is offering a rare glimpse into the world of dinosaurs. Researchers have uncovered a near-complete skeleton with fossilized skin.



[Arezki Amiri](#)

Published on June 25, 2025



*Exposed Hadrosaur Skeleton.  
Credit: University of Reading*



*Exposed hadrosaur skeleton.  
Credit: University of Reading*

In the remote hills of **Alberta**, Canada, a discovery of extraordinary proportions is unfolding. Researchers have uncovered **fossilized remains** of a dinosaur, potentially offering the most complete specimen of its kind in modern history. Hidden within the rugged terrain of **Dinosaur Provincial Park**, this find is piquing the interest of **paleontologists** and may reshape our understanding of ancient life. The excavation team hopes the specimen, with its preserved **skin**, will provide insights into the **appearance** and **biology** of these ancient creatures.

### **The Find That Could Alter Paleontological Understanding**

In 2021, during a **field scouting trip**, Dr. **Brian Pickles**, from the **University of Reading**, along with a volunteer crew, stumbled upon part of a **hadrosaur** fossil protruding from the hillside. Known for its large, duck-bill shaped snout, the hadrosaur is one of the most studied groups of dinosaurs.

What sets this discovery apart, however, is the possibility that a substantial portion of the skeleton, including **fossilized skin**, could still be buried within the rock. While **complete dinosaur skeletons** are rare, this one holds the promise of not only revealing a near-complete structure but also offering unique insights into the **soft tissue preservation** of the animal.

### **Skin Preservation: A Rare Glimpse into the Past**

One of the most striking aspects of the fossil is the remarkable preservation of skin covering large areas of the skeleton. According to Dr. **Caleb Brown**, a paleontologist at the **Royal**

**Tyrrell Museum**, the preservation of soft tissue such as **skin** is a rare occurrence in paleontology.

*“The skin can reveal details about the dinosaur’s **texture**, **coloration**, and potentially even its environment or behavior,” Dr. Brown explained.*

The fossilized skin could offer clues to the creature’s life that go beyond mere skeletal remains, potentially allowing scientists to reconstruct not only its **physical appearance** but also aspects of its **daily existence** millions of years ago.



*Exposed Hadrosaur Skeleton.  
Credit: University of Reading*



*Terie Kaskie and Melissa Dergousoff standing next to the hill containing the hadrosaur skeleton. Credit: University of Reading*

### **The Significance of a Juvenile Specimen**

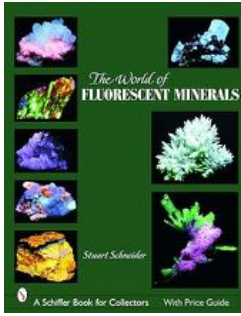
This discovery also stands out due to the **juvenile status** of the dinosaur. While adult hadrosaurs are well represented in fossil records, **younger specimens** are far less common. This finding presents a rare opportunity to study the **development** of hadrosaurs from a young age, offering potential new insights into their **growth** and evolution.

*“Based on the small size of the tail and foot, this is likely to be a juvenile,” noted Dr. Pickles.*

Understanding how these dinosaurs grew could help **paleontologists** piece together a more complete picture of their life stages and behaviors.

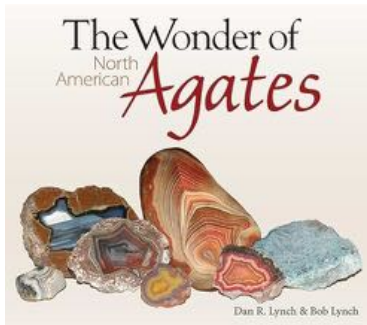


## Geology Books



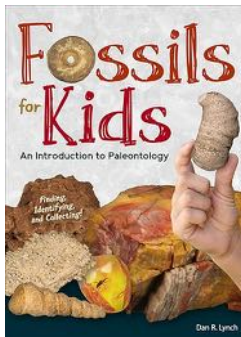
**The World of Fluorescent Minerals**  
(Schiffer Book for Collectors)  
Paperback – Illustrated, July 27, 2006  
by [Stuart Schneider](#) (Author)

Minerals of the world – shown both in daylight and under the ultraviolet light.



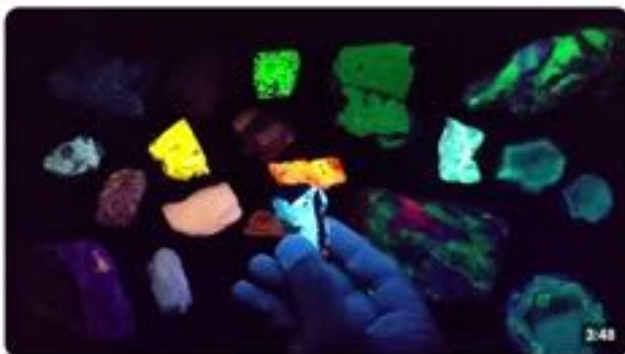
**The Wonder of North American Agates**  
Paperback – July 1, 2013  
by [Dan R. Lynch](#) (Author), [Bob Lynch](#) (Author)

Celebrate North America's banded gemstones with this stunning coffee-table book about agates.



**Fossils for Kids: An Introduction to Paleontology** (Simple Introductions to Science) Paperback – April 7, 2020  
by [Dan R. Lynch](#) (Author)

Dig into the history of life with this children's introduction to paleontology, complete with an identification section and "how to" instructions.



### Mineral Fluorescence

19K views · 5 years ago

TMartScience

Part of a series of mineral properties used for mineral identification. This video demonstrates mineral fluorescence and ...



### A Beginners Guide to Agate Identification

199K views · 3 years ago

Agate Ariel

So you found a cool rock—but is it an agate? This video will help you identify different kinds of agates and...

12 moments BANDED JASPER | HONEYCOMB CHALCEDONY | FORTIFICATION...



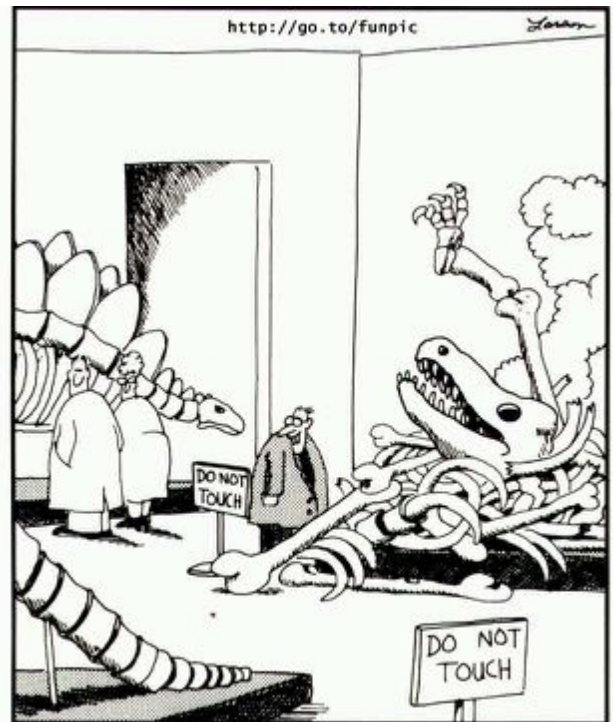
### Ohio Rocks: Fossils

26K views · 9 years ago

Cincyborn

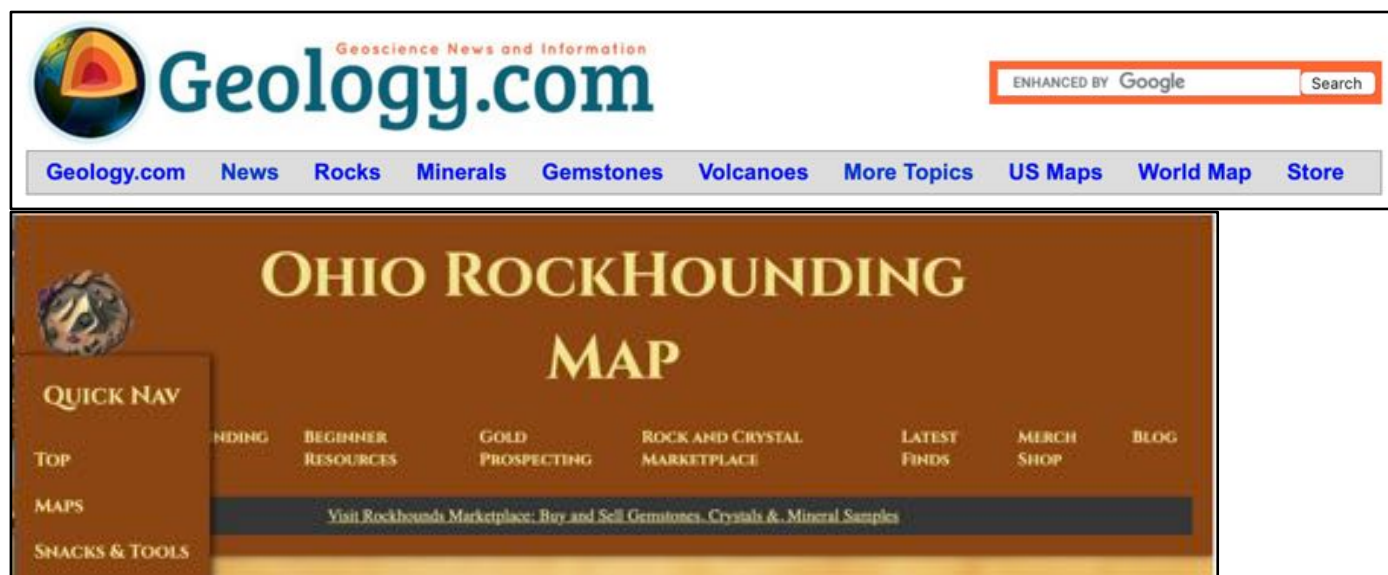
Did you know that Cincinnati is famous for our landslides? Did you know we were once the home of a wal...

10 moments RICK SORWASH | BRENDA HANKE PALEONTOLOGIST | BRACHIOPODS...



## Interesting Web Sites

1. Mineralogy4kids
  - a. <https://min4kids.org>
2. Minerals by Name
  - a. [http://www.galleries.com/Minerals By Name](http://www.galleries.com/Minerals%20By%20Name)
3. Ology - the science website for kids from the American Museum of Natural History
  - a. <https://www.amnh.org/explore/ology?channel=earth>
4. Fascinating Geology for Kids
  - a. <https://littlebinsforlittlehands.com/geology-for-kids/>
5. Geology for Elementary Schools
  - a. <https://study.com/academy/topic/geology-for-elementary-school.html>
6. Elementary School Science
  - a. <https://www.elementaryschoolscience.com/lesson-plan-intro-rocks-minerals>



## 2025 Rockhound Holidays (Rock + Gem Magazine)

People often say there's a holiday for everything, and they're right. The good news is there are some fun holidays for Rockhounds to enjoy and celebrate.

Old Rock Day – January 7

National Jewel Day – March 13

Geologists Day – April 6

Earth Day – April 22

Nickel Day – May 16

Dinosaur Days – June 1

National Caves & Karst Day – June 6

World Oceans Day – June 8

International Drop a Rock Day – July 3

International Rock Day – July 13

National Pet Rock Day – September 7

Collect Rocks Day – September 16

National Fossil Day – October 15

## [Upcoming Events and Rock Shows](#) – (Ohio and close to Ohio)

Check the Midwest Federation of Mineralogical + Geological Societies for Calendar Updates

### July

**19-20—ERIE, PENNSYLVANIA:** Show and sale; Gem City Rock and Mineral Society; Zem Zem Shriners Banquet and Conference Center, 2525 West 38th Street; Sat. 10-6, Sun. 10-5; Adults \$4, children under 12 free

### August

**1-3—ISHPEMING, MICHIGAN:** Annual show; Ishpeming Rock and Mineral Club; Ishpeming Elk's Lodge, 597 Lakeshore Drive; Fri. 9-12:30, Sat. 9-3:30, Sun. 12:30-3; Saturday show is free to attend. Friday and Sunday Field trips are \$10 per person; 49th Annual Upper Peninsula Gem and Mineral Show Sponsored in conjunction with Travel Marquette Friday: Field trip to Republic Mine Saturday: Show with over 50 vendors Sunday: Field trip to Lindberg Quarry; contact Klrsten R Maki, (540) 850-4170; Email: krmaki75@gmail.com; Website: [ishpemingrocks.org/show.html](http://ishpemingrocks.org/show.html)

**15-17—SOUTH BEND, INDIANA:** Annual show; Michiana Gem & Mineral Society; St Joseph County 4H Fairgrounds, 5117 South Ironwood; Fri. 10-7, Sat. 10-7, Sun. 10-4; Adults/Kids 12 and up \$5; Dealers, displays, exhibits, lapidary arts demonstrations, kids corner, door prizes, silent auction and more; contact Holly Kraftor; Email: [geodesandgemstones@hotmail.com](mailto:geodesandgemstones@hotmail.com); Website: [www.michianagms.org](http://www.michianagms.org)

### September

**5-7—BOWLING GREEN, OHIO:** Annual show; Toledo Gem and Rockhound Club; Wood County Fairgrounds, 13800 W Poe Rd; Fri. 10-6, Sat. 10-6, Sun. 11-5; \$6, 3 day Pass \$12, Kids under 12 and Scouts in Uniform Free; Annual Club Show featuring 35 + vendors of Jewelry, Gems, Crystals, Minerals, Beads, Rough Rock, Tools and so much more! Displays, Demos, Kid's activities, something for everyone. Come immerse yourself in the world of Gems and Lapidary, see what the Toledo Gem & Rockhound club is all about; contact Jerri A Heer, (419) 344-9999; Email: [jheerx6@aol.com](mailto:jheerx6@aol.com)

## **Our Club's Craft Program**

We will send out information about craft classes as we get them planned and scheduled.

MIDWEST FEDERATION OF MINERALOGICAL & GEOLOGICAL SOCIETIES

New Website: <https://www.mwfed.org>

New Juniors Website: <https://www.mwfed.org/juniors>

## **FUTURE ROCKHOUNDS OF AMERICA**

(American Federation of Mineralogical Societies)

**Lora Hall, AFMS Youth Director**

[youth@amfed.org](mailto:youth@amfed.org)

**Future Rockhounds of America (FRA) is a whole lot more than just the badge program!** The new FRA website is packed FULL of lots of resources for activities with kids and teens in YOUR club - Any Midwest Federation Club. Features like **Rock Pals, the Junior Volunteer Award, Contests and rock-related activities for Kindergarten-12th grade kids** can make your club attractive to families and increase your membership. Check out the links below for ideas, and visit [www.juniors.amfed.org/rock-mineral-activities](http://www.juniors.amfed.org/rock-mineral-activities) for more!

### [The Midwest Federation of Mineralogical + Geological Societies](https://www.mwfed.org)

You can check out all the Shows and Events in our Midwest Region (Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska) at the Midwest Federation of Mineralogical + Geological Societies <https://www.mwfed.org>



[The U.S. Geological Survey Youth and Education in Science \(YES\) Team.](https://www.usgs.gov)

Revamped their web presence to better assist with online and home learning.

The new USGS learning from home portal for lesson plans and activities, grades K – 12.

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

Students of all ages can always tap into the USGS Resources for Teachers for over 140 years of USGS research in the natural sciences in the form of lesson plans and activities, maps, podcasts, online lectures, videos and animations, and much more. Browse thousands of ideas for using these resources in elementary, secondary, university, and informal education settings

## **Meeting Minutes**

[April 2025](#)

[May 2025](#)

[June 2025](#)

**Don't Forget to Check Out our Website for Club Information:**

[\*\*http://www.midohiomineralandfossilclub.com\*\*](http://www.midohiomineralandfossilclub.com)



## **The Lithnics**

If you have any club news, articles you would like share with members, updates on your committee, etc. please email info to:

Bryan Summer – [bryansummer1@gmail.com](mailto:bryansummer1@gmail.com)

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