



The LITHNICS

Volume 59 Issue 2

April 2021



THE LITHNICS



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

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SHOW Tom Kottyan and Jason Larson
SPECIAL INTERESTS Mike McCullough (Classes)
VIDEO/BOOK LIBRARY Carolyn Kelly
LITHNICS EDITOR Bryan Summer
1290 Fairview Ave
Galion, OH 44833
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:



Adults	\$ 15.00
Children under 16	\$ 5.00
Family	\$ 20.00

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 .

Note: Dues for all paid members of 2020 are waived for 2021

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)

New Club Name and Logo Design Contest

To be more in-line with current trends and financial responsibility our club has a new name:

The Mid-Ohio Mineral and Fossil Club

We have a new Federal EIN Number and new State of Ohio Charter Number

Upcoming Logo Contest

We are planning to have a new Club Logo Contest. Watch for more information about the Logo Contest and Prizes. I have submitted the entry on the front as a sample Logo. Be creative, anything goes! Start Creating!

Meeting Minutes

January 2021 Minutes

No Meeting this month due to the Corona Virus

February 2021 Minutes

No Meeting this month due to the Corona Virus

March 2021 Minutes

No Meeting this month due to the Corona Virus



Our Club Show!

June 12 + 13, 2021

Sample Brochure
Details may change.

Mid-Ohio Mineral and Fossil Club
**GEM, MINERAL, JEWELRY,
BEAD, & FOSSIL SHOW**
"DIAMONDS" & GEMSTONES



14 QUALITY DEALERS
SILENT AUCTIONS
RUN HOURLY
BOTH DAYS

JUNE 12 & 13
SAT
10:00 AM – 6:00 PM
SUN
11:00 AM – 5:00 PM

GEODE BREAKING
HOURLY DOOR PRIZES
DEMONSTRATIONS

Richland County Fairgrounds
Fairhaven Hall
750 North Home Road
Mansfield, Ohio

Admission
Adults\$5.00
Seniors.....\$4.00
Children 6-16.....\$3.00
Children 6 & Under.. Free
Scouts in UniformFree

Minerals of Ohio

Ohio History Central

https://ohiohistorycentral.org/w/Minerals_of_Ohio



Flint is Ohio's official gemstone and Flint Ridge flint is renowned for its color and beauty. In pre-historic times, the flint was used by American Indians for tools including knives and spear points; today, the polished stone is valued in jewelry making. The most famous deposit of flint in Ohio is an area in eastern Licking and western Muskingum Counties known as Flint Ridge. Flint Ridge Flint became Ohio's official gemstone in 1965.

Minerals are naturally-occurring elements or compounds that are the constituents of igneous, metamorphic, and sedimentary rock. In unusual circumstances, minerals may grow into typical crystal forms that make them desirable to collectors.

Most people would not think of Ohio as a state that would yield a surprising variety of mineral specimens; however, there are many Ohio collectors who have assembled collections of museum-quality specimens. Beautiful and colorful crystals of such minerals as calcite, celestite, pyrite, selenite gypsum, and sphalerite, among others, can be found along with small flakes of gold, colorful flint, and rare meteorites and diamonds.

Minerals occur in a variety of areas in Ohio in association with sediments or sedimentary rocks. Many of them have crystallized from fluids that flowed through the rocks and deposited minerals in open spaces. A well-known mineral district in the state is in northwestern Ohio (Findlay Arch mineral district) where sometimes-spectacular crystals of calcite, celestite, dolomite, fluorite, and others are present in small to large vugs—or cavities inside rocks—in dolomites of Silurian age. Unfortunately, natural outcrops of these rocks are rare in this glaciated area and most exposures are in quarries that dot the area. Many of these quarries are no longer open to the public for collecting. A small area in southern Ohio, in parts of Adams and Highland counties, is called the Serpent Mound zinc district. It derives its name from the presence of the mineral sphalerite, which is a major ore of zinc. However, it is not known to be in economic quantities in this area. Other minerals, including calcite and barite, occur in this district along with geodes. Rocks of Pennsylvanian age in eastern Ohio are known for hematite nodules, petrified wood, and ironstone septarian concretions. Pyrite and marcasite crystals occur in association with the Olentangy Shale and Ohio Shale in the outcrops of these units in southern, central, and northern Ohio.

Detailed information on the occurrence and collecting of minerals in Ohio is given in the book *Minerals of Ohio*, published by the Division of Geological Survey. Collectors should always ask permission from the landowner before collecting fossils, minerals, or other specimens. Many spectacular specimens of Ohio minerals are on display at the Ohio History Connection and at other natural history museums in the state.

Calcite – Calcium carbonate. Calcite is common as vein fillings in many rocks in western and central Ohio. Silurian dolomites in northwestern Ohio yield clusters of large crystals ranging from clear to dark brown. Many have a golden color.

Celestite – Strontium sulfate. Northwestern Ohio produces crystals of this mineral in colors ranging from white to a beautiful pale blue. Crystal cave on South Bass Island is a large vug filled with very large crystals of celestite.

Diamonds – Carbon. At least six diamonds have been found in Ohio in sediments deposited by glaciers of the Pleistocene Ice Age. All were small crystals. As with gold, these minerals were carried to Ohio from Canada by glaciers. In recent years, diamond-bearing kimberlite pipes have been discovered in the Canadian shield and they may have been the source for rare Ohio diamonds.

Dolomite – Calcium magnesium carbonate. Interesting crystals, ranging in color from white to brown to pink, occur in northwestern Ohio in association with other minerals.

Flint – Silicon dioxide. Flint is Ohio's official gemstone. Amorphous silica occurs in nodules or beds in Devonian limestone and particularly in Pennsylvanian limestone. It is thought that the silica was derived from the siliceous spicules of sponges. The most conspicuous bed of flint is associated with the Pennsylvanian-age Vanport limestone at Flint Ridge in Licking and Muskingum Counties. Although most flint is gray or black in color, Flint Ridge flint is characterized by its light color with hues of red, green, yellow, and other colors. Flint was quarried by American Indian cultures for spear points, knives, scrapers, and other functional and ceremonial objects. Today, collectors polish Ohio flint into colorful jewelry. The aboriginal quarries and displays of Flint Ridge flint are visible at Flint Ridge State Memorial.

Fluorite – Calcium fluoride. The Findlay Arch mineral district produces interesting crystals of fluorite in brown and sometimes purple, green, and yellow, usually in association with calcite and other minerals common to the district.

Galena – Lead sulfide. This gray-colored heavy mineral is an ore of lead. Small cubic crystals of galena occur in the Findlay Arch mineral district.

Gold – This native element occurs as small flakes and is found by panning gravel in the beds of modern streams. Gold was transported to Ohio by glaciers of the Pleistocene Ice Age and modern streams have eroded the glacial sediments and concentrated the gold particles. Many streams in the glaciated portion of the state, or rivers draining the glaciated areas have produced small amounts of gold.

Gypsum – Hydrated calcium sulfate. Gypsum occurs in massive form in northern Ohio, where it was mined until recently. Moderately large, well-formed crystals of clear selenite gypsum are found in northeastern Ohio in silts and clays deposited in beds of former glacial lakes.

Hematite – Iron oxide. This mineral occurs as reddish to grayish nodules in rocks of Pennsylvanian age in eastern Ohio. These nodules are comparatively heavy because of the iron content. Early charcoal-fired iron furnaces in Ohio used hematite ores as the source of iron.

Marcasite – Iron sulfide. Gold-colored marcasite look similar to pyrite but has a different crystal structure. It is found primarily in the Devonian-age Ohio Shale.

Melanterite – Hydrated iron sulfate. Melanterite was formerly known as copperas. This is one of several minerals found in Ohio that are termed efflorescences. They occur as small, delicate crystals on the surface of coal beds and shales such as the Ohio Shale where evaporation draws mineral-bearing waters to the surface.

Pyrite – Iron sulfide. Pyrite occurs in brassy crystals or sometimes as nodules in Devonian and Pennsylvanian shales. This mineral is commonly known as “fool’s gold” because it has been mistaken so often for gold due to its gold color.

Quartz – Silicon dioxide. In addition to flint, quartz occurs as small crystals in association with dolomites in western Ohio. The flint beds at Flint Ridge commonly have small vugs lined with quartz crystals.

Sphalerite – Zinc sulfide. Generally found as small, brown to reddish-brown crystals in Silurian dolomites in southern Ohio in the Serpent Mound zinc district. This mineral is also found in concretions in the Devonian-age Ohio Shale.

Strontianite – Strontium carbonate. Strontianite occurs as small white crystals or powdery masses in cavities or vugs in Silurian dolomites in the Findlay Arch mineral district.

Where to find Geodes in the Midwest Region

By Fern Fischer
May 7, 2018



Geodes are rock formations found in sedimentary or volcanic rock all over the world. A geode looks like a nondescript spherical rock from the outside -- a bit lumpy and ugly -- but inside it contains mineral deposits or crystals. Geologists call the outer layer of rock, usually limestone, the rind. Hollow geodes may have quartz crystals inside them. Sometimes the mineral deposits completely fill the inside; this kind of formation is a nodule.

Some people call geodes thunder eggs and they are found in many areas of the United States. In the Midwest, they are commonly found in stream beds, and in the West they can be found in dry valleys and deserts that are volcanic ash beds.

State Rock of Iowa

The state rock of Iowa is the geode. In southeastern Iowa, near the town of Keokuk, is Geode State Park. The area within a 70 mile radius of the junction of the Des Moines River and the Mississippi River contains some of the most varied geodes anywhere. The crystal geodes from Iowa are sought after by collectors, and they are in museums around the world. Keokuk has an annual Geode Fest, which is a great opportunity for new or experienced collectors to meet and rock hunt. You'll find plenty of geodes, from pea-size to more than a foot in diameter.

Indiana Rich with Geodes

The limestone areas of south-central Indiana south of Bloomington are rich with geodes. Pick up geodes around the Monroe Reservoir, or go stream hunting along Bear Creek near the town of Trevlac. Some streams run through private property, and permission to hunt might be necessary. The 200,000-plus acre Hoosier National Forest is in this area, and public rivers and streams that run there are also good places to find geodes.

Kentucky Geode Hunting

Kentucky is home to great geode sites. The Fort Payne and Warsaw-Salem Formations in east-central Kentucky provide good hunting along the creek beds. The Green River area in south-central Kentucky also has good findings, and it is known for large geodes measuring two feet in diameter.

Ohio

(gatorgirlrocks.com)

Crystal Cave – the Largest Known Geode in the World

Put-in-Bay, Ohio

The Crystal Cave is a limestone cave located in Put-in-Bay, Ohio on South Bass Island in Lake Erie (at Heineman's Winery). It is the largest known geode in the world. The geode is approximately 35 feet wide at its widest point. The cave was discovered in 1897 approximately forty feet below the winery. The walls are lined with large celestine crystals.

Ohio Rockhound

A useful website focusing on Ohio minerals, including collecting sites.

1. Mark J. Camp, **Roadside Geology of Ohio** (2006).
2. June Culp Zeitner, **Midwest Gem, Fossil, & Mineral Trails: Great Lakes States** (Rev. ed., June 1999 – first published in 1955).
3. June Culp Zeitner, **Midwest Gem Trails: Field Guide for the Gem Hunter, the Mineral Collector, and the Tourist** (3d. Rev. ed., 1964 – originally published in 1956).
4. James Martin Monaco & Jeannette Hathway Monaco, **Fee Mining & Mineral Adventures in the Eastern U.S.** (2d ed. 2010).
5. Kathy J. Rygle & Stephen F. Pedersen, **Northeast Treasure Hunter's Gem & Mineral Guide** (4th ed. 2008).

Rock Tumbling Contest

2021 Worldwide Tumbling Contest!

The rock for 2021 is Burriss Creek Jasper from the northern part of the Sacramento Valley of California. Entry fee is \$35 for 3 pounds of rough rock for continental US residents. This includes shipping the material to you. Outside the USA will be \$35 plus any additional shipping.

- 3 lbs of rough rock will be shipped to you when the application and payment is received beginning in early January 2021.
- Deadline for application is June 1, 2021.
- Mail 5 (yes only 5) of your best finished rocks and a copy of the entry form postmarked no later than August 15.
- Apply early in the year to have plenty of time to tumble. Take your time tumbling!
- Cash prizes = \$250, \$100, and \$50 for first, second, and third place winners!

More information about the contest can be found at:

<https://www.featherriverrocks.org/show/rock-tumbling-contest-drop-down2>

This includes a link to the complete set of rules and application form.

Amazing YouTube Videos

1. All About Geodes and How They Are Formed
2. Crystal Cave at Put in Bay Island
3. Ohio Rocks- Geology, Ice Age, Fossils, and Resources
4. 13 Rarest Gemstones and Minerals Ever Seen
5. Ohio Rocks” Fossils

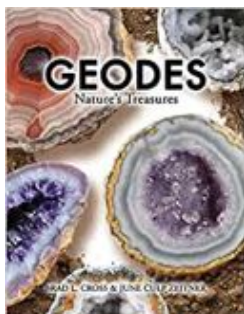


The U.S. Geological Survey Youth and Education in Science (YES) Team. Revamped their web presence to better assist with online and home learning.

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

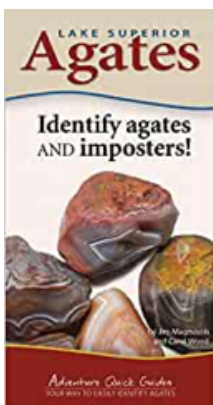
www.usgs.gov

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.



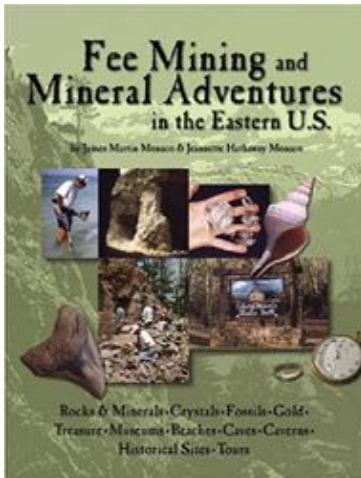
Geodes by Brad Lee Cross + June Zeitner

Explore the Mysterious World of Geodes! Take a crack at geode science! Learn from two world renowned gemologists as they share their lifelong passion and knowledge of everything geodes, from their formation and occurrence to the amazing variety and beauty of these popular, world-class gemstones. Meet the close cousins of geodes - thundereggs, septarians and concretions. -Travel with June Zeitner as she explores vast geode deposits throughout the Midwestern U.S. that provide a recorded history of the ancient seas that once covered the land.



Lake Superior Agates by Jim Magnuson

Keep this tabbed booklet close at hand on your next rock-hunting adventure. Based on Jim Magnuson's *Agate Hunting Made Easy* and featuring the professional rock photography of Carol Wood, this guide helps to turn agate hunts into successful ones. You'll learn to pick up on those clues valuable to beginners and experts alike: Learn the common agate features to look for, see what rough agates look like in the field, recognize the different varieties of Lake Superior agates, and identify the agate imposters that might fool you.



Fee Mining and Rockhounding Adventures in the Eastern US

Have you always wanted to try your hand at gold panning, or digging for gemstones? This is the guide for you! James and Jeannette Monaco share their joy and experience of fee mining in the 31 eastern-most states of the United States.

Try panning for gold in Alabama, Georgia, Indiana, Maine, North Carolina or Vermont. Search for quartz crystals in Arkansas, Maine, Pennsylvania, or Virginia. Find fossils in Florida, Indiana, Maryland, and South Carolina. You can also search for agates, topaz, emeralds, garnets, rubies and much more.

Geology Poem

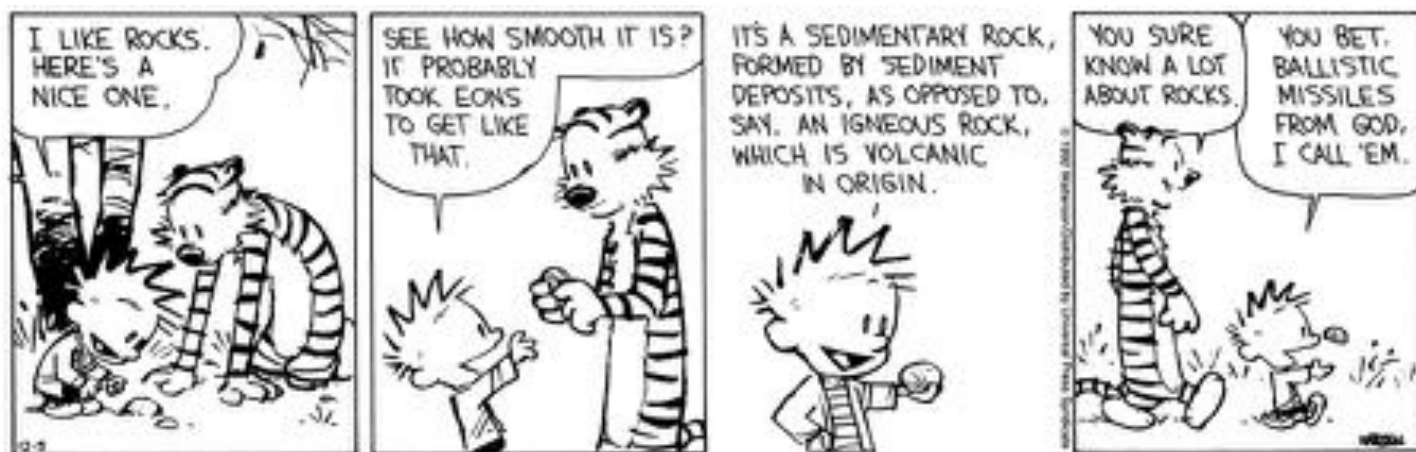
Every Rock has a Story

I am a rock hunter. That's my story.
I dig for rocks beneath the ground.
I search for those rocks that hope to be found.
Some are soft and some are tough.
Some are diamonds in the rough.
Just like you and just like me,
and throughout our history,
every rock has a story.
And every time I hold a rock,
I whisper silently, I wonder how you came to be?
Did you roll in a riverbed?
Or were you an arrowhead?
Could you be a beach stone from the bottom of the sea?
Or a fossil of petrified wood from a tall fir tree?
Igneous
Metamorphic
Sedimentary
No matter what I quarry,
every rock has a story.

© Kiesha Shepard

Geology Quotes

1. Geology gives us the patience of God. by J.D. Holland
2. The geologist takes up the history of the earth at the point where the archeologist leaves it, and carries it further back into remote antiquity. By Bal Gangadhar Tilak
3. Geology gave us the immensity of time and taught us how little of it our own species has occupied. By Stephen Jay Gould
4. If it weren't for rocks in its bed, the stream would have no song. By Carl Perkins
5. Geologist have a saying – rocks remember. By Neil Armstrong



Interesting Web Sites

1. Geology.com
 - a. <https://geology.com>
2. Science News for Students
 - a. www.sciencenewsforstudents.org
3. One Geology Kids
 - a. <http://www.onegeology.org/eXtra/kids/home.html>
4. Rockhounding in Ohio – What rocks you can find and where.
 - a. <https://rockhound.in/rockhounding-in-ohio-what-rocks-you-can-find-and-where/>
5. Rockhound Resource
 - a. <https://rockhoundresource.com/ohio-rockhounding-locations-map/>
6. Roamin Club Rocks, Minerals, and Fossils
 - a. <https://roaminrockclub.weebly.com/rock-mineral-fossil-resources-michigan-387586.html>

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.

All meeting dates may be affected by the Corona Virus

- Tuesday, April 6 Informal Meeting, GNC Shelter House
 - 6:00 Rock Swap + 7:00 Meeting
- Monday, May 3 To be Determined
- Monday, June 7 To be Determined

Upcoming Events and Rock Shows – (Ohio and close to Ohio)

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

All show dates may be affected by the Corona Virus

April

8-10: WYOMING, MI Indian Mounds Rock & Mineral Club Annual Show. Thurs./Fri 9:30-9; Sat 9:30-7. Rogers Plaza Town Center, 972 - 28th St. SW, Wyoming, MI

24-25: TROY, OH Miami County Gem & Mineral Club Annual Club. Sat 10-6; Sun 10-4. Miami County Fairgrounds, 650 N. Co. Rd. 25A, Troy, OH

May

1-2: SHARONSVILLE, OH Cincinnati Mineral Society Annual Show. Sharonville Convention Center, 11355 Chester Rd., Sharonville, OH

6-9: KALAMAZOO, MI Kalamazoo Geological & Mineral Society Annual Show. Kalamazoo Expo Center, 2900 Lake St., Kalamazoo, MI

15-16: NORTH OLMSTED, OH Parma Lapidary Club Annual Show. 11-5 each day. Soccer Sports Plex, 3515 Lorain, North Olmsted, OH

June

4-6: WAUSEON, OH State Line Gem & Mineral Society Annual Show. Fri Noon-6; Sat 10-6; Sun 11-4. Fulton County Fairgrounds, Junior Fair Building, 8514 SR 108, Wauseon, OH

12-13: MANSFIELD, OH Mid-Ohio Mineral & Fossil Club Rock Swap. Sat 10-6; Sun 11-5. Mansfield Fairgrounds, Fairhaven Hall, 750 Home Rd., Mansfield.
Contact: Tom Kottyan, (419) 562-1152; themineralhouse@netzero.net

25-27: BEDFORD, IN Lawrence County Rock Club Annual Show. Fri 10-6:30; Sat 9-6:30; Sun 10-4. Lawrence County Fairgrounds, US Highway 50, Bedford, IN

Mid-Ohio Mineral and Fossil Club
GEM, MINERAL, JEWELRY,
BEAD, & FOSSIL SHOW
 "DIAMONDS" & GEMSTONES



14 QUALITY DEALERS SILENT AUCTIONS RUN HOURLY BOTH DAYS	JUNE 12 & 13 SAT 10:00 AM – 6:00 PM	GEMME BREAKING HOURLY DOOR PRIZES DEMONSTRATIONS
	SUN 11:00 AM – 5:00 PM	

Richland County Fairgrounds Fairhaven Hall 750 North Home Road Mansfield, Ohio	Admission Adults\$5.00 Seniors.....\$4.00 Children 6-16.....\$3.00 Children 6 & Under.. Free Scouts in UniformFree
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[The Midwest Federation of Mineralogical + Geological Societies](http://www.amfed.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 Web Site (www.amfed.org)

The Midwest Federation of Mineralogical + Geological Societies



Message from the President Tom Kottyan

Fellow club members,

As I write this message, I hope most of you have had a chance to get one of the Covid vaccines. This way we can get back to some sort of normal, whatever that means.

We are planning to have our show on June 12-13 this year in Fairhaven Hall at the Fairgrounds. It looks like we could possibly be the first show in Ohio and probably in the surrounding states. We feel that we can have a successful show and follow the Covid protocols. The Fairgrounds have mandated that masks be worn by all at the show and it is highly suggested that we have several sanitizing stations within the building. We can have up to 500 people in the facility at a time. We will not have any speakers this year and the Dealers are ready to come.

For this year, we are not going to have any "Kids Zone" or sand pit. So in following with our focus of educating young adults, we are going to provide specially packaged grab bags with 10 identified fossils and minerals in them with a sticker that says "My First Mineral and Fossil Collection" sponsored by the Mid-Ohio Mineral & Fossil Club, Mansfield, Ohio. This will help to keep the focus on educating young adults which is the primary function of our club.

We will have to make some adjustments this year until we beat the Covid virus. This will come to an end, but we have to be vigilant! I miss you as club members, but the most important thing, is that we all make it through this pandemic.

Hope to see you all soon. If you have not responded to Jason's emails on working the show, please do so as we need all hands-on deck. As I always say, just give me two hours of your time at the show and everything will go very well.

Tom Kottyan

Tom Kottyan

Mid-Ohio Mineral and Fossil Club President

Don't Forget to Check Out our Website for Club Information
www.rlls.webs.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

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