The LITHNICS

Volume 59 Issue 4
Oct 2021

THE LITHNICS

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

CURRENT OFFICERS

PRESIDENT…… Tom Kottyan
VICE-PRESIDENT…….. Jim Baumgartner
PAST PRESIDENT …….. Bill Byrley
RECORDING SECRETARY…… Pat Everly
TREASURER …… Pam Kottyan
TRUSTEES…… Pam Lauer until 12/31/2021
Joel Likins until12/31/2020
Lawrence Hall

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DOOR PRIZE …….. Pam Kottyan
EDUCATION …….. Tom Kottyan
FIELD TRIPS ……..
GORMAN CENTER LIAISON .. Tom Kottyan
HISTORIAN ……Jason Larson
HOSPITALITY ……Joel Likins
MEMBERSHIP …… Pam Kottyan and Jason Larson
SHOP …….. Walt Upchurch
SHOW …… Tom Kottyan and Jason Larson
SPECIAL INTERESTS …….. Mike McCullough (Classes)
VIDEO/BOOK LIBRARY …… Carolyn Kelly
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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)

The Mid-Ohio Mineral and Fossil Club

Message from the President
Tom Kottyan

Fellow club members,

As I write this note, my favorite season has just started. I love the 60-70 degree days and the cool evenings. Hopefully, you are all as well as expected. COVID just will not give up its grip especially on the unvaccinated portions of our population. Unfortunately, viruses are really great at mutating and to be honest I see no short end in sight. Please get vaccinated! I don't want to lose any members from this nasty virus. Since many of you have been either holding up in your house or have been cautious going out. This is the perfect time to focus on your personal growth either by reading the many publications for our hobby or surfing the internet for the wealth of information that is available.
A great mineral site is **mindat.org** for reliable information, as they are not trying to sell you anything. There are several fossil sites as well under the same thoughts of just information. One I like is sponsored by the Smithsonian. I find reading the current mineral and fossil publications keeps me up on new ideas and expands my general knowledge. Hopefully we all see each other soon post pandemic. Have a great fall!

Tom Kottyan
Tom Kottyan
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, Oct 4 — 7:00 Meeting Gorman Nature Center
- Monday, Nov 1 — 7:00 Meeting Gorman Nature Center
- Monday, Dec 6 — Christmas Dinner 6:00 – 9:00 at the Golden Corral

Fossil footprints show humans in North America more than 21,000 years ago

The footprints, the earliest firm evidence for humans in the Americas, show that people must have arrived here before the last Ice Age.

By Tom Metcalfe

David Bustos heard about the "ghost tracks" when he first went to White Sands National Park in New Mexico to work as a wildlife scientist in 2005. When the ground was wet enough at certain times of the year, the ghostly footprints would appear on the otherwise blank earth, only to disappear again when it dried out.

It wasn't until over 10 years later, in 2016, that scientists confirmed that the ghost tracks had been made by real people — and it's only now that some of the ancient footprints at White Sands have been dated as the earliest in North America.

"We'd been suspicious of the age for a while, and so now we finally have that it's really exciting," Bustos said. "One of the neat things is that you can see mammoth prints in the layers a meter or so above the human footprints, so that just helps to confirm the whole story."

The footprints at White Sands were dated by examining the seeds of an aquatic plant that once thrived along the shores of the dried-up lake, Ruppia cirrhosa, commonly known as ditchgrass. According to research published Thursday in the journal Science and co-authored by Bustos, the ancient ditchgrass seeds were found in layers of hard earth both above and below the many human footprints at the site, and they were radiocarbon-dated to determine their age.

The tracks at one location have been revealed as both the earliest known footprints and the oldest firm evidence of humans anywhere in the Americas, showing that people lived there 21,000 to 23,000 years ago — several thousand years earlier than scientists once believed.

"It's the earliest unequivocal evidence for humans in the Americas," said the lead author of the study, Matthew Bennett, a professor of environmental and geographic sciences at Bournemouth University in the U.K.

Fossilized human footprints have now been found throughout the east of the national park, where the bed of a "paleo-lake," which is now dry, supplies the gypsum-rich earth that is eroded by the wind to create the enormous white dunes for which the region is famous.

Any traces of early human habitation had been disputed because they relied on what seemed to be stone tools that might have formed naturally, Bennett said, or on artifacts that might have moved from their original stratigraphic layers.

The team has studied the footprints at White Sands National Park for years, excavating trenches and following the tracks with ground-penetrating radar. NPS, USGS and Bournemouth University

"A footprint is a really good, unequivocal data point," he said. "That's the importance of this site — we know they were there."

The footprints would in turn give greater credibility to other evidence of early humans in the Americas.

"You can now look at the oldest sites and say, 'We know they were there during the Last Glacial Maximum,' so maybe some of these oldest sites are also reliable," he said.

The term "Last Glacial Maximum" is how scientists refer to the height of the last ice age, about 20,000 to 26,000 years ago.

It has long been debated whether humans arrived in the Americas by a northern route from Siberia before or after the Last Glacial Maximum, when vast sheets of ice would have made migration along the Pacific Coast or through western Canada impossible.

The ancient footprints at White Sands answer that question, suggesting that they may have arrived up to 30,000 years ago, thousands of years before the height of the ice age, Bennett said.

White Sands is now mostly a desert, but it was a lush wetland at the time the footprints were made and populated by mammoths, ground sloths, bovids — cattle — and wild camels, as well as by the Stone Age humans who hunted them.

The footprints, which are intermingled with the tracks of the animals, show that people must have lived there for at least 2,000 years, Cornell University archaeologist Thomas Urban, a co-author of the research, said in an email.

“There are multiple footprint layers spanning a significant amount of time, suggesting a sustained human presence in the area during the Last Glacial Maximum, as opposed to a single event,” he said.

Urban developed the noninvasive use of ground-penetrating radar to reveal the footprints beneath the surface and show the researchers the best places to excavate.

Smaller footprints made by teenagers and children outnumber those made by adults, Urban said, possibly because they were involved in tasks that involved simple labor, instead of skilled tasks like hunting.

“Their presence is simply part of ordinary life and should be expected,” he said. Their activities may have ranged from playing to chores, such as gathering food, water and raw materials for their hunter-gatherer community.

Geologist Cynthia Liutkus-Pierce of Appalachian State University in North Carolina, who has studied ancient human footprints in Tanzania and wasn’t involved in the White Sands research, said it was often difficult to date just when fossilized footprints were made, especially when they were pressed into layers of mud — as at White Sands — and not into more easily dated volcanic ash.

It’s “great to see that this team was able to constrain the date of the footprint formation using radiocarbon dates from the [layers] above and below,” she said in an email.

Unlike bones or artifacts, footprints are unique in that they recorded fossilized behavior, and their analysis can yield clues about the print-makers.

“Human footprints give us a glimpse into the lives of our ancestors and, in this case, provide detailed information on their day-to-day activities and social dynamics,” Liutkus-Pierce said.

Plymouth Rock

Rare earth elements and old mines spell trouble for Western water supplies

Acid rock drainage into Western streams is a problem; climate change is making it worse.

Rare earth elements are necessary components of many computing and other high-tech devices, like cell phones and hard drives. But there is growing recognition that they can be hazardous in the environment even at low levels of concentration.

"This is of concern because their concentrations are not monitored and there are no water quality standards set for them," says study author Diane McKnight, who is an INSTAAR Fellow and engineering professor at the University of Colorado Boulder.

The study is the first to look at how rare earth elements move within a watershed that is rich in minerals. It is also the first to investigate how climate change, by altering stream flow and natural weathering processes, is releasing more rare earth elements into streams.

Diane McKnight has led her students in investigations of water quality in the Snake River watershed of Colorado since the 1990s. Their main focus has been measuring and observing acid rock drainage. In this process, rocks that include sulfide-based minerals, such as pyrite, oxidize when exposed to air and water. The resulting chemical reaction produces sulfuric acid and dissolved metals like iron, which drain into streams. More acidic water can further dissolve heavy metals, like lead, cadmium, and zinc, and as it turns out can carry rare earth elements as well.

"What really controls the mobility of rare earth elements is pH. Acid literally leaches it out of the rocks," says first author Garrett Rue, who earned a masters degree studying limnology with McKnight and a subsequent PhD from CU Boulder.

Acid rock drainage happens naturally throughout the western United States, with its pyrite-rich geology. But historic mines that disturb large amounts of rocks and soil amp up the process dramatically and cause downstream water pollution.

Within the Snake River watershed, towns impacted by acid mine drainage have been forced to adapt to poor water quality. Some former mining boomtowns, like Silverton, import water from distant sources. Others rely on expensive water treatment plants. All fish in the Snake River are stocked, since the water is too high in zinc for any native fish species to survive. The problem is endemic to the western United States, says Rue: "Upwards of forty percent of the headwaters to major rivers in the West are contaminated by some form of acid mine or rock drainage."

The Snake River has made a good natural laboratory for investigating both, since the Peru Creek part of the watershed was heavily mined, while the Upper Snake River was not. But Rue and McKnight found that both parts of the watershed are now contributing significant amounts of metals downstream, as climate change has brought longer summers and less snow in the winters. Longer, lower stream flows make it easier for metals to leach into the watershed, and concentrate the metals that would otherwise be diluted by snowmelt.

The same processes that mean more heavy metals are finding their way into streams are also acting on rare earth elements. The researchers found rare earth elements throughout the Snake River. "We documented a concentration range of one to hundreds of micrograms per liter -- several orders of magnitude higher than typical for surface waters -- with the highest concentrations nearest the headwaters and areas receiving drainage from abandoned mine workings," says Rue.

They also documented that increases in rare earth elements in the Snake River corresponded to warming summer air temperatures, and that rare earth elements are accumulating in insects living in streams at concentrations comparable to other metals such as lead and cadmium shown to be toxic.

"We're starting to understand that once rare earth elements get in the water, they tend to stay there," says Rue. "They aren't removed by traditional treatment processes either, which has implications for reuse and has led some European cities to designate REEs as an emerging contaminant to drinking water supplies. And considering that the Snake River flows directly into Dillion Reservoir, which is Denver's largest source of stored water, this could be a concern for the future."

The researchers suggest that investigating and investing in technologies to recover rare earth elements from natural waters could yield valuable commodities and help address the problems associated with acid rock and mine drainage, which are poised to worsen as the climate shifts.

"Rare earth elements are used to make a lot of products. But most of the supply comes from China. So our government has been looking for sources, but at the same time mining has left an indelible mark on the waters of the West," says Rue. "If we can harvest some of these materials that are already coming into our environment, it might be worthwhile to treat that water and recover these materials at the same time."

"This problem is getting worse and we need to deal with it," adds McKnight. "If we can solve the problem holistically, we can have a valuable resource and also think about climate adaptation."

University of Colorado at Boulder. "Rare earth elements and old mines spell trouble for Western water supplies: Acid rock drainage into Western streams is a problem; climate change is making it worse." ScienceDaily. ScienceDaily, 31 August 2021.

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).

Amazing YouTube Videos

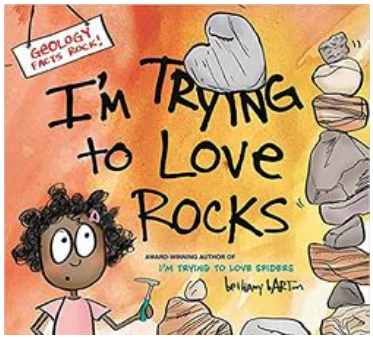
1. Ohio's Scenic Geology
2. Mining for Ohio's Gemstone
3. Ohio Rocks – Geology, Ice Age, Fossils, and Resources
4. Karst in Ohio – Caves, Sinkholes, Disappearing Stream
5. Phosphorescent Minerals Display at THE Ohio State University Geology Dept. Museum

The U.S. Geological Survey Youth and Education in Science (YES) Team.

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

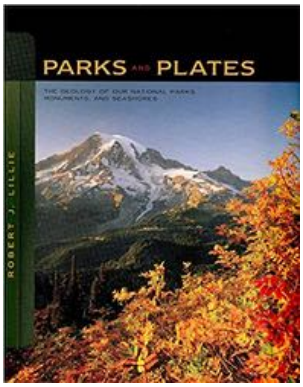
The new USGS learning from home portal for lesson plans and activities, grades K – 12.
www.usgs.gov

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



I'm Trying to Love Rocks by Bethany Barton

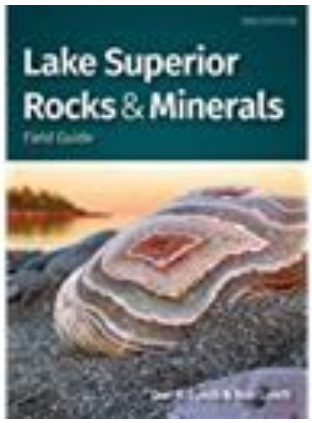
Think rocks are boring? Think again! From the Grand Canyon to Volcanos to diamonds and fossils, this funny, fact-packed introduction to geology will help kids think differently about our home, the Earth.



Parks and Plates by Robert Lillie

The Geology of our National Parks, Monuments, and Seashores

Many of our national parks, monuments, and seashores were established because of their inspiring geological features—from the geysers of Yellowstone to the granite peaks of Yosemite.



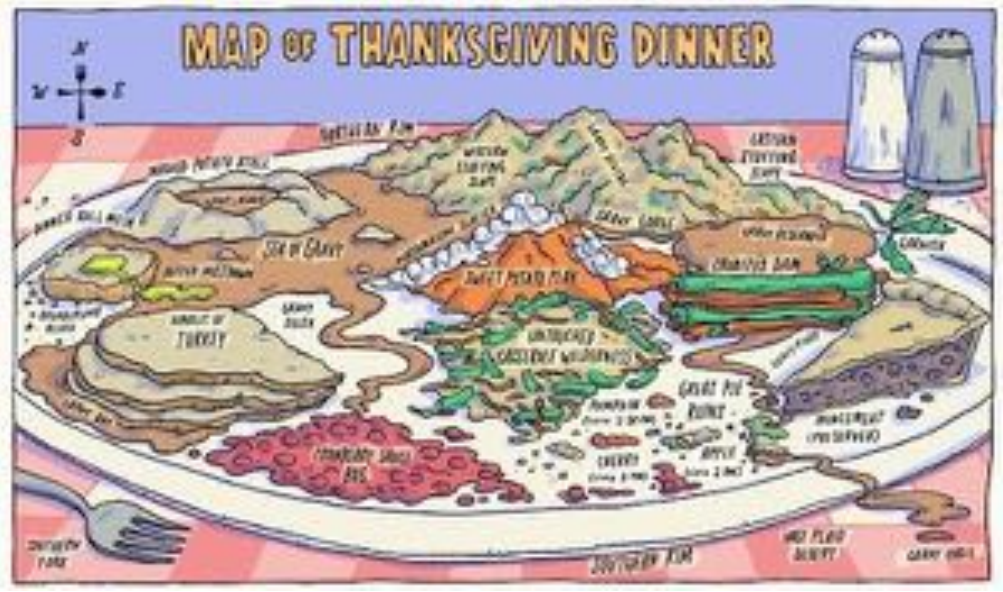
Lake Superior Rocks and Minerals Field Guide by Dan R. Lynch

This must-have guide for Michigan, Minnesota, Wisconsin, and Ontario features full-color photographs and information to help readers identify rocks and minerals.

- 75 specimens of the Lake Superior region
- Quick Identification Guide: Identify rocks and minerals by color and common characteristics
- Range/occurrence maps to show where each specimen is commonly found
- Professional photos: Crisp, stunning images

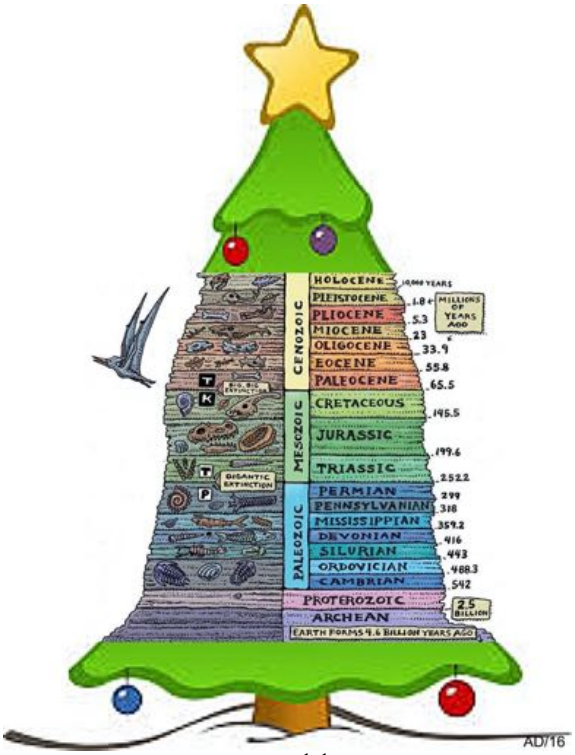
Geology Poem by Hunor Deak

Quartz
You are so simple!
Yes you are!
Simple structure,
SiO2 or SiO4,
When combined!
You can be clear,
Yet impure,
Even mystical!



Geology Quotes

1. Geology gave us the immensity of time and taught us how little of it our own species has occupied. Stephen Jay Gould
2. Bacteria mineralized the rocks; they deposited the iron. They made the geology we see. Bonnie Bassler
3. Geology gives us a key to the patience of God. J. G. Holland
4. The geologist takes up the history of the earth at the point where the archaeologist leaves it, and carries it further back into remote antiquity. Bal Gangadhar Tilak
5. Geologists have a saying - rocks remember. Neil Armstrong



Interesting Web Sites

1. One Geology Kids
    a. http://www.onegeology.org/extra/kids/links.html
2. Oxford University Museum – The Learning Zone
    a. http://www.oum.ox.ac.uk/thezone/index.
3. The Geological Society – Ask a Geologist
    a. https://www.geolsoc.org.uk/askageologist
4. 80 Unique Virtual Field Trips
    a. https://micromyearth.com/virtual-field-trips
5. Virtual Field Trips – Geology of the National Parks
    a. https://www.e-education.psu.edu/geosc10/node/1802

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

October

8-10: WARREN, MI Michigan Mineralogical Society Annual Show. Fri 9-6; Sat 10-7; Sun 11-5. Macomb Sports & Expo Center-Bldg P, 14500 E. 12 Mile Rd, Warren. Contact: John Peters, (313) 255-7774; *joopett13@hotmail.com*

15-17: FORT WAYNE, IN Three Rivers Gem & Mineral Society Annual Show. Fri/Sat 10-6; Sun 10-5. Allen County Fairgrounds, 2726 Carroll Rd., Fort Wayne. Contact: Bev Jenkins, (260) 639-0727; *cabsbybev@gmail.com*

22-24: MASON, MI Central Michigan Lapidary & Mineral Society Annual Show Fri 6-9; Sat 10-6; Sun 11-4. Main Pavillion, Ingham County Fairgrounds, Ash Street, Mason. Contact: R obin Smith, (517) 290-4891; *rsmith@redssmith.com*

23-24: CUYAHOGO FALLS, OH Summit Lapidary Club Annual Show. Sat 10-6; Sun 10-5. Expo Center, 48 East Bath Rd., Cuyahugo Falls. Contact: Becky Koscso, (330) 808-8134

November

No Area Shows Listed at This Time

December

No Shows Listed at This Time

The Midwest Federation of Mineralogical + Geological Societies

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

Meeting Minutes

July

Tom Kottyan welcomed members & guests to the June meeting of the Mid-Ohio Mineral & Fossil Club.

June minutes were read by Pat E. Treasurer's report given by Pam Kottyan. It was noted the club made approximately $7,139.21.

Tom reported the bottom line was over $7,100 for the club. Best we've ever done and the most attendance so far. Tom thanked Jason Larson for all his technical support.

Pam K noted the hourly door prizes given during the show were already prizes the club owned from previous activities and there was no cost.

Anyone having keys to the cases please let Tom know as that will determine how many more copies may be needed. Tom noted the cost to build a new building will be between $70,000-$80,000 and the proceeds from our show, after all expenses, will be put towards the building. The kids grab bags went over very well and out of 200 that were made, only 12 remained by the end of the show. Tom noted we are an unusual club as we are gaining members when other clubs are losing members, and this greatly helps during our show. We had 48 members that worked in some capacity during the show. Only one vendor will not be returning, even though they love our club & show, due to sluggish sales & cost of travel.

Dave Grove noted the cases reflected the lapidary art of contained in our club.

Jason said folks are not e-mails although he has no notice that any e-mails are coming back. Check e-mail spam/junk mail accounts and notify Jason if still not receiving to be sure e-mail is correct.

Tom welcomed visitors for the evening. Should they wish to join, please see Pam K.

Field Trips:
Flint Ridge: September 24th, 25th and 26th.
Herkimer "Diamond" mine in New York is available.
Keokuk, Iowa is also a good trip (collecting Geodes).

Programs:
August: Tom will be speaking about Quartz
September: Dale Gneidovic, curator of OSU Orton Geological Museum, will be talking on Ice Age Mammals, a program he has not presented to the club since 1997.

New Business:
Dave Grove noted Jay Medici's father, John, received the 2020 Carnegie Mineral Arts Award for outstanding contributions.in mineralogical preservation, conservation and education.
Bob Krahling said the Gold Rush group will be demonstrating Labor Day Weekend.

Old Business: None

Additional info:
Dave G said his daughter asked him what he wanted at the show & he told her of a nice piece of Celestite that Jay M. had. Jay's father had dug this up in 2001 or thereabouts. His daughter bought the piece from Jay for Dave's Father's Day Gift.
Stan Espenshade: has several nice slabs including Prehnite from Keweenaw Peninsula, Mich, with little Copper Crystals.
Bryan Summer has Flint from the Betty Crawford sale that he has tumbled.
Carolyn Kelley has a wire-wrapping done by former club member Suzanne Shores.
Lawrence Hull made a turquoise necklace & ring for Mick's wife.

Door Prize: James Baumgartner won a Copper Chiseled Chip necklace.

Meeting was adjourned. Members were welcome to enjoy refreshments and items members have brought for viewing.

August

Tom welcomed members & guests to the August meeting of the Mid-Ohio Mineral & Fossil Club.

Pat Everly was unable to attend due to illness. Treasurer's report for the July was read by Pam Kottyan.

Bryan Summer reported we have our official non-profit organization notice. He noted the benefits to the club of being a non-profit club.

Walt noted the shop is up & going.

Hospitality reporting by Joel Likins noting tonight by Susan Boyer & Nancy Ribeau; September will be James & Patti Baumgartner, Doug & Martha Bretz, October Pat & Dan Everly, Gary Proietti & Bryan Summer. November is open to be covered, then December is our annual dinner at Golden Corral.

DVD's & CDs as reported by Carolyn K will be available next year.

Programs:
September will be Dale Gneidovic speaking on Mammals of the Ice Age.

Lithnics: Bryan S asked if anyone has any adventures or articles for the Lithnics please e-mail to Bryan.

Tom stated we are looking for a new name for the Lithnics and anyone that has a suggestion please let him know.

Tom noticed our three guests and thanked them for coming.

Tom still needs for anyone who may have a key to let him know to ensure we have enough for next year.

Old Business: none

New Business:
Jim Baumgrartner gave a nice update on Roger Bartley's condition. He had been life-flighted to Columbus in ICU. It was determined he had been bitten by a feral cat and had contracted Pasteurella multocida, a common bacterium found in approximately 80% of cats. They had to remove his artificial knees & cleaned out the infection. He was put on a ventilator. He wasn't improving as fast as expected & Roger's wife reminded them, he was having trouble moving his arms. They opened his shoulders & cleaned out more infection. After two weeks they took the ventilator out. His dialysis has been removed and he is very, very slowly recovering. He's looking at 4-6 months to recover.

Tom reminded folks the only thing worse than a cat bite is a human bite & thanked Jim for the update.

Old Business: none

New Business:
Dave Grove said the last weekend of September, Ashland County, Kentucky is mineral & fossil club is having their first ever show. There will be 26-28 dealers setting up. Should be a good show with lots of variety.
Tom stated the Toledo show is the weekend after Labor Day and will be held in Bowling Green this year at the fairgrounds. Also, in the same area, the Midwest Federation will be holding their annual conference. So far, the Detroit, Michigan show, to be held on October 8th, 9th & 10th, is still happening. Most of their kid activities have been canceled & kid grab bags have been made. Day.

Personal Exhibits:
Bryan entered the rock tumbling show in California. This year's mineral is Jasper & he brought in the remaining pieces of Jasper that he did not remit for judging. He worked approximately 14 weeks tumbling & grinding his Jasper. You can use either a tumbler or vibratory tumbler.
Rob Ludwedge brought in sand from Michigan. About 3 years ago, Rob attended a flea market & found a dealer with some pieces of stone that resembled Turquoise on one side & Gold on the other side. He had Gary Getz run a spectrum analysis & found it is indeed Gold. He purchased his find for $5.00 and now has 5 pieces of Gold pieces of Topaz
Gary brought in several nice piece of Quartz.
Stan Espenshade found Mohawkite at the Mohawk Mine, Keweenaw Co., Michigan.
Pam K wore a necklace of wire-wrap done by One-of-a-Kind Wire Wrappers. The top stone is a Plume Agate, the middle stone is faceted Tourmaline, & the bottom stone is Sheen Obsidian.
Dave G has a crate of Agates of different sizes.
Lawrence H reported Dave G just got in some Rainbow Obsidian from New Mexico.

Door Prize was a nice piece of Quart Herkimer Diamond with matrix won by Walt Upchurch

Meeting was adjourned for refreshments & program given by Tom Kottyan on Quartz.

September

1. Tom Kottyan opened the meeting.
2. Treasurers Report $16,510.45 Checking and Savings Account Ending Balance.
3. Two Visitors were recognized and introduced.
4. Meeting Program for October is Copper and Copper Minerals from the Upper Peninsula of Michigan.
5. The Lithnics will be coming out in October.
6. Special Interests – Joyce Kish will schedule a wire wrapping class in November
7. Jeff and Brad are the clubs new Trip Chairmen
8. Mineral Show scheduled for June 11 + 12 2022 will be on Native Copper and Copper Minerals
9. Mineral Show scheduled for 2023 will be on Trilobites
10. September 24 + 25 Irwin, Kentucky Mineral Show is on Agates.
11. Roger is in a Rehab Center and can stand with walker. He is regaining his strength. He is still awaiting surgery for knee replacement.
12. Tom Kottyan shared that all UV Flashlights are Long Wave.

13. Short Wave UV Lights can be very damaging to your eyes. Make sure Short Wave Lights have a filter to remove white light.
14. Door Prize was won by Brad Wagner.
15. The Meeting was adjourned for snacks and presentation by Dale Gnidovec on Life in Prehistoric Ohio.

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

The Lithnics is Published Quarterly

January 1, April 1, July 1, October 1