



MWF News

**Midwest Federation
of Mineralogical and Geological Societies**

March 2025 - Issue No. 640

Website – www.mwfed.org

**Member of the American Federation of
Mineralogical Societies**



PRESIDENT'S MESSAGE

Cheryl Neary, MWF President

Multiple times I have heard people ask about our federation – the Midwest Federation. It seems that some members of our clubs aren't aware that a federation exists to help their clubs.

The purpose of the federation is “to promote interest and education in geology, mineralogy, paleontology, archaeology and lapidary, and to sponsor and provide means of coordinating the work and efforts of groups interested in these fields.”

The question is – what can your federation do for your club?

To understand the question, let's first look back into our history as a federation.

It was organized in 1940. The Midwest Federation, along with three other federations, were the original founders of the American Federation of Mineralogical Societies in 1947.

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HELLO? IS ANYONE HOME?

Jim Brace-Thompson, AFMS Public Relations Chair
From the February, 2025 A.F.M.S. Newsletter

In previous columns, I've promoted the use of social media to spread the word about your gem and mineral society. Many clubs, in addition to having their own websites, have embraced Facebook and Instagram. Just one word of advice: Keep these lines of communication active!

I recently experienced frustration with a local society that shall go unnamed. I'd prepared an old-school regular-mail notice that was being sent to a number of clubs, when I saw that this club's posted mailing address was inconsistent. The address listed on their website was not the address listed in the regional federation club directory. Last year, I sent a similar mailing to the address from their website. It came back “Address Unknown/Return to Sender.” What to do with this year's mailing?

I returned to the society's website for guidance, but there was no link to nor archive of the society's newsletter, which generally contains a club's contact info, so no ability to use that as a check. There was no listing of officers with contact info – not a single one!

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It encompasses a region of 12 states. The states served by the Midwest Federation are:

From the farthest west: North Dakota, South Dakota and Nebraska

To the farthest east: Michigan and Ohio

With Minnesota, Iowa, Missouri, Wisconsin, Illinois and Indiana in between. In addition, although Arkansas is part of the South Central Federation, three Arkansas clubs have joined our membership.

There are approximately 110 clubs in our federation. Of course, the number of clubs in each states varies. And the reasons behind the formation and existence of each club varies. Do you know why and how your club formed? All clubs form because two or more people found a shared interest in either geology, mineralogy, and/or field collecting, for example. People join clubs to learn new skills and information, to further their hobby – and to socialize.

Socialization is important for many reasons. Not only can it be fun, but it helps promote a sense of belonging and security. Social interaction can improve mood, and can reduce the risk of dementia by sharpening memory and cognitive skills. Per the Mayo Clinic, socialization may even help you live longer! This may alone be a great reason to have your friends and family join your club!

The education element is just as important. I used to tell my children (and now tell my grandchildren) that every day you should learn something new. It doesn't have to be something earth-shattering, but something new. It can be as simple as learning something about a person – your family or friends or a complete stranger – or possibly about your or someone else's pet. It could be something more complex and earth-shattering, such as learning about a recent earthquake.

I am sure that when you attend a meeting, you are learning something new that you did not know before. If you are not, you should be challenging your club to offer an educational moment.

Your federation offers your club insurance. Your federation offers your club field trip opportunities. Your federation offers your club support with juniors'

MWF OFFICERS

President: Cheryl Neary
42 Jefferson Avenue
Patchogue, NY 11772
516-449-5341
ciervo.neary@gmail.com

1st VP: Tom Barnhizer
5060 Arbor Way
Sylvania, OH 43560
419-381-4418
superscouts258@gmail.com

2nd VP: David Rich
1166 Broadview
Tallmadge, OH 44278
330-630-9625
birdman035@hotmail.com

Secretary: Donna Moore
25235 N. Illinois Highway 97
Cuba, IL 61427
309-231-2116
mwfsecretary@gmail.com

Treasurer: Steve Shimatzki
4295 County Road 16
Woodville, OH 43469
567-868-8794
woodvillerocks@gmail.com



programs. Your federation offers your club the opportunity to participate in the various contests – All American Club Yearbook Award, the Bulletin Editors' Contest, the Website Competition, to name a few. Your federation pays dues to the American Federation, which entitles your club to participate in regional field trips and contests.

The question should be, what is my club doing as a federation club? Is your club participating, for instance, in the Bulletin Editors' Contest? Or naming a Rockhound of the Year? Website and All American Club competitions? Display-case competitions at federation conventions? Juniors' contests?

The federation offers each club the opportunity to discuss future direction for the federation, to discuss issues within the clubs, and to promote activities of your club. Please consider joining me and the executive board at the MWF 2025 Convention, hosted by Lincoln Gem & Mineral Club, on April 5th and 6th. The Lincoln Gem & Mineral Club is also offering field trip opportunities on Thursday, April 3rd.

I would like to point out that, in the flyer for the show and convention, the Lincoln Gem & Mineral Club thanks the MWF for allowing them to host the 2025 convention. I personally would like to thank them for volunteering to host the event. Every club should be willing to host the event. What a great opportunity if various clubs throughout the 13 states hosted the event. Of course, the federation will provide guidance and help if you require it. Think of how much fun it would be to visit, let's say, South Dakota or Ohio or Arkansas!

HELLO? IS ANYONE HOME?, CONTINUED

(Continued from page 1)

Not even an anonymous email account like “president@acmeclub.com.” No phone number shown anywhere to enable a quick conversation. But there was a “Contact Us” page where you could fill in your email address and phone number along with a question. So I went with that. The result? No response.

As days ticked by, I saw that they had a Facebook page. Tried a little check-in. No response. Perhaps I shouldn’t have been surprised. On that Facebook page, the most recent posting was from January 2023, which made it 22 months old at the point that I was checking in. And nearly all the preceding posts had the following generic Facebook notice: “This content isn’t available right now. When this happens it’s usually because the owner only shared it with a small group of people, changed who can see it, or it’s been deleted.”

As I said at the outset, keep your lines of communication active! To which I add: Be responsive! True, we are all volunteers. We all have much on our plates beyond our rock clubs. But if you’re going to enter a game, you need to play the game. Keep it current. Keep it active. Keep it responsive.

So here I am. Still stuck with two different mailing addresses, one of which is known to have generated a “return-to-sender” notice. Should I simply waste another increasingly expensive stamp and use the other address that differs from what’s on their website? Or is this club simply a lost cause? If someone active in their Federation can’t find them or get a response from them, what does that say about someone who might be checking in about potentially becoming a member? Or someone seeking info about an upcoming show or other club event?

As for me, I’m still awaiting a response from the club with two addresses and a “Contact Us” page that seems to be a one-way dead-end street. (By the way, I did try the second mailing address. It, too, came back “Address Unknown/Return to Sender.”)

As I said at the beginning, this club (which, supposedly, is still active) shall go unnamed. If perchance you’re wondering, “Could he be talking about my club??” then it’s time to roll up some sleeves!

FLOWERS AND HEAVY METAL COMBINE

Marilyn Russell, Treasurer
Three Rivers Gem & Mineral Society
From the May, 2024 Strata Data

Last year, our club’s big field trip was to New Jersey to look for fluorescent minerals. This is surprisingly easy if 1) you have the correct light source and 2) you are in the correct area. What was surprising was the great abundance of a specific plant that was unfamiliar to me. I kept seeing it all over at the different mines we visited. It wasn’t a particularly pretty plant, but I noticed it because of the small yellow flower and the swelling under the blossom.

Later, in one of the museums, there was an example of this plant in a small display – and it blew my mind. **It turns out the bladder campion is a plant that is usually found around soil with high amounts of zinc.** Zinc prospectors would be happy to see bladder campion!

Zinc is used in everyday life: pennies, vitamins, car tires, medications, lotions, and anything made of brass. Of course, the munitions industry needs zinc to make bullet casings... and my daughter’s saxophone is full of the stuff! Looking for this valuable resource was made easier by finding bladder campion.



Silene vulgaris, known as bladder campion, in Guelph, Ontario. Photo by Ryan Hodnett, via Wikimedia Commons.

This was my introduction to phytoremediation - using plants to clean hazardous sites. This is not a new concept; Andrea Cesalpino wrote about it in 1583!

Phytoremediation started gaining ground in the 1940s, when soil scientists discovered that many plants are able to take in higher amounts than anticipated of

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FLOWERS AND HEAVY METALS COMBINE IN PHYTOREMEDIATION, CONTINUED

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heavy metals. These toxins, spewed out in industrial waste, sewage and agricultural chemicals, were wreaking havoc with the environment. Plants like the Bladder Campion not only thrived in the presence of zinc and cadmium, but they were also able to take in large amounts from the polluted soil. In New Jersey, when I saw them growing all over, they were cleaning up the mining site without any human intervention.

Research on what plants could do to clean our environment began in earnest in the 1970s, because phytoremediation takes place with minimal impact – it's slow, but it works. Most plants are not useful for this purpose; they may grow in a polluted environment but will resist taking up any of the toxins present. However, some plants do a super job of absorbing heavy metals, pesticides, volatile compounds from paint and refrigerants, and even diesel fuel.

Want to get rid of cadmium, lead and selenium? Plant a field of **Indian Mustard**! If you are traveling anywhere in the Midwest, you will see the native **Indian Grass** growing in ditches along the roads... it's a great way to get rid of pesticides before they enter the water table. What are those beautiful **Weeping Willows** doing? Getting rid of cadmium, lead, diesel fuel, nickel, and copper, that's what! Too much cadmium in your soil? **Alpine Pennygrass** is able to remove 10 times more cadmium than any other known soil cleaning plant.

Sorghastrum nutans
(Indian grass) is
common in the Midwest.
Photo by Matt Lavin of
Bozeman, Montana, via
Wikimedia Commons.



Cleaning up superfund sites is not for the faint of heart, but it may be easy for **poplars**. In West Virginia, an oil refinery had ceased production in 1954, but 40 years later, the soil and groundwater remained horribly polluted. Because the area was prone to

flooding and had a history of vandalism, the West Virginia EPA started a trial phytoremediation using poplars in 1999. By 2006, the amounts of gasoline, benzene and toluene in the ground water had dropped by 59%, and the contaminated soil in the area had an 82% drop! It was also much cheaper, costing an initial \$80,000 and then \$20,000 a year maintenance. Traditional cleanups using excavating, incineration and soil venting was estimated to cost 65 million.

The most surprising phytoremediation was the use of plants to clean toxins from the ground and water after the Chernobyl disaster. Indian grass and **sunflowers** were extensively used. In addition to heavy metals, they could take up and degrade radioactive cesium 137! The area is still blanketed with acres of sunflowers.

The final question I had was, what happens to the plants which do such hard work for the planet? It turns out that many of the plants are able to degrade the chemicals they pull out of the ground and water, especially petroleum waste products. The chemicals are broken apart on a molecular level and rendered harmless. However, most heavy metals are simply captured and stored; where this type of contamination cleaning is done intentionally, new methods of phytomining have been developed. The valuable heavy metals are mined out of the plants themselves.

It's amazing where curiosity and research can take you, and all because I went on a club field trip!

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UPCOMING EVENTS

Date and Time	Organization	Place	Contact
Feb. 28, March 1-2 Fri & Sat 10-6, Sun 11-4	Eastern Indiana Gem & Geological Society	Kuhlman Ctr., County Fairgrounds, 861 N. Salisbury Road, Richmond, IN	Angie Shaffer, EIGGSshowchairperson @gmail.com
March 1-2 Sat 11-6, Sun noon-6	Roamin Club annual auction	VistaTech Center, Schoolcraft College, 18600 Haggerty Road, Livonia, MI	Clarence Sterling, tripodsfrommars@ gmail.com
March 7-9 Fri 10-8, Sat 10-7, Sun 10-5 Auction Sat at 7	Association of Earth Science Clubs of Greater Kansas City	KCI Expo Center, 11730 NW Ambassador Drive, Kansas City, MO	Bruce Stinemetz, brucestinemetz@att.net
March 8-9 Sat 10-6, Sun 10-5	Geodeland Earth Science Clubs	Student Union, Western Illinois University, Macomb, IL	Donna Moore, mwfsecretary@gmail.com
March 8-9 Sat 10-5, Sun 10-4	Kettle Moraine Geological Society of Wisconsin	County Fair Park, 3000 Highway PV, West Bend, IN	John Rettler, johnrettler@gmail.com
March 8-9 Sat 9-5, Sun 11-4	River Valley Rockhounds	County Fairgrounds, 22770 Old Highway 169, Fort Dodge, IA	Deb Davis, lookachicken@gmail.com
March 15-16 Sat 10-5, Sun 10-4	Earth Science Club of Northern Illinois	County Fairgrounds, 2015 Manchester Road, Wheaton, IL	Dave Carlson, fossil54@att.net
March 21-23 Fri 4-8, Sat 10-7, Sun 10-5	Rock Hobby Club	Machinists Auditorium, 12365 St. Charles Rock Road, Bridgeton, MO	Roy Hurlburt, hurlburt@juno.com
March 22-23 Sat 8:30-6, Sun 9:30-4	Cedar Valley Rocks & Minerals Society	Hawkeye Downs Expo Center, 4400 6 th Street SW, Cedar Rapids, IA	Marvin Houg, m_houg@yahoo.com
March 29 Sat 10-5	Midwest Mineralogical and Lapidary Society	St. John's Lutheran Church, 13115 Telegraph Road, Taylor, MI	Louis Talley, ltalley1970@gmail.com
April 5-6 Sat 9-5, Sun 9:30-4	Black Hawk Gem & Mineral Club	Mississippi Valley Fairgrounds, 2815 W. Locust Street, Davenport, IA	Bret Henderson, reminerals@gmail.com
April 5-6 Sat 10-6, Sun 11-5	Columbus Rock & Mineral Society	Rhodes Bldg., Ohio Expo Center, 717 E. 17 th Ave., Columbus, OH	columbusrockandmineral society.org
April 5-6 Sat 9:30-5, Sun 10-4	Des Plaines Valley Geological Society	Park District Leisure Center, 2222 Birch Street, Des Plaines, IL	Mike Hanley, geodeguy@att.net
April 5-6 Sat 9-5, Sun 10-4	Lincoln Gem & Mineral Club	Sandhills Global Event Center, 84 th & Holdrege, Lincoln, NE	Charles Wooldridge, charles.wooldridgeii@ gmail.com
This show is being held in conjunction with the Midwest Federation's convention, which is being hosted by the Lincoln Gem & Mineral Club.			
April 6 11-5	Black Hawk Gem and Mineral Society	Waterloo Center for the Arts, 225 Commercial St., Waterloo, IA	David Malm, davidmalm326@gmail.com

MINERALS WITHOUT COLOR ARE NOT WITHOUT APPEAL

Kreigh Tomaszewski
West Michigan MWF Mineral Study Group

Color is generally not a reliable key for mineral identification, but it is useful enough that some field guides use it as their primary key. We decided to run with it this year and go through the colors of the rainbow. We are nearing the end of this sequence, and recently looked at clear/colorless minerals.

Our Mineral Study Group likes to learn about the science and practical uses of the minerals we study, but we really want to learn to hand-identify them. Hand identification is a skill you learn from holding and studying many different specimens of a given mineral (and doing some homework on its physical properties).

We try to do our homework on the science and come prepared to discuss the mineral theme of the month, but we also dig through our collections and come with one or more specimens for everyone to handle. We really do learn from each other (you have to share your specimens with others before they can be appreciated). The concept behind our color study theme is to have as many different minerals of a given color to examine together, so we can learn to distinguish between them.

Our group came up with an unusual collection of clear minerals, though a few had a slight tint of color. We got to examine multiple specimens of the sulfate anglesite, the sulfate baryte, and the carbonate calcite. Over 800 different forms have been described for calcite, and we had some of the odd ones to look at in addition to the common rhombs. The sulfate celestine showed up.

The elements made an appearance with multiple diamonds. We had some wonderful clear/colorless specimens of the halide fluorite. In addition to visible light, fluorite transmits UV and infrared light, so fluorite lenses are used in scientific instruments. Fluorite is also used in high-end camera lenses because its lower index of refraction than glass allows for a sharper focus. The halide halite (a/k/a salt) made an appearance.

Next up was the oxide ice, represented by cubes from the freezer and the snow outside our windows. We had specimens of the halide kernite, the oxide opal, and the tectosilicate pollucite. Then it was time

for the oxide quartz and its many habits. The clearest were Herkimer diamonds, but we had Japan law twins, Faden quartz, and a cohort of scepters and clusters. Quartz gets complicated – go read the Mindat.org article.

Then the sulfate selenite made an attempt at upstaging quartz. We had some very beautiful crystals, including one from the Naica Cave (sadly, it was only a little one).



And the gypsum crystals from the Naica Cave in Mexico can get, well, large. Photo by Alexander Van Driessche, via Wikimedia Commons.

We finished up with the carbonate strontianite, the nesosilicate topaz, and the borate ulexite.

It is one thing to look at the pictures in the field books, but you get a much deeper appreciation when you can hold a specimen and look at it through a lens (feel the heft, shine a bright light on it, etc.). And then look at another specimen of the same mineral (and maybe another). And then look at something else that is close but different. Some homework was done, and we learned a bit about the specimens we studied.

All West Michigan rockhounds are invited to attend meetings of the West Michigan MWF Mineral Study Group. For information about date, time, place, and what kind of minerals we'll be studying, contact me, kreigh@gmail.com.

We usually have some time at the end to look at some unknowns you might need help on (no promises of a positive ID, but we are getting better at identifying minerals). We squeezed in a few this month.

METEORITE LANDS AT MISSOURI LIBRARY

A tiny book whose front and back covers are made from meteorite was recently added to the Linda Hall Library of Science, Engineering & Technology in Kansas City, Missouri.

Jason W. Dean, V.P. for Collections and Public Services, wrote about the book in the 2024 issue of the library's Hedgehog magazine. *Robert Hutchings Goddard, Father of the Space Age* is an autobiography printed in miniature (about 2" by 3") in 1966 to mark the 40th anniversary of Goddard's successful launch of the first liquid-fueled rocket. The Dutch company that printed it ran off 1,926 copies, only four of which are bound in meteorite.

According to Dean, Dr. Arno Gschwendtner, a collector of miniature books, and Roland Meuter, who cut and etched meteorites for high-quality watch dials, were responsible for the remarkable cover.

"Gschwendtner spent more than 100 hours researching a suitable meteorite, ultimately deciding to use octahedrite from the Muonionalusta Meteorite, which fell on Northern Scandinavia circa one million years BCE," Dean writes. "Meuter's slices display a pattern distinctive to the . . . meteorite, composed of iron, nickel, gallium, and germanium."



Photo from the 2024 Hedgehog.

The Linda Hall Library has been amassing special collections since 1946. It's an independent research library with publications in 82 languages, an international destination for scholarship and research. In addition, it supports teachers of STEM curricula and provides resources to learners of all ages interested in science.

People who'd like to see the meteorite-covered book can call the library at 816-363-4600 to make arrangements. The library's website is lindahall.org.

FOSSILIMERICKS

Matt Westbrook, Maryland Geological Society
1st Place AFMS Adult Poetry 2008
From the April, 2024 A.F.M.S. Newsletter

"It's a beauty!" you say as your hand
Reaches down toward a shape in the sand.
But your ecstasy's brief:
It's another black leaf.
How it fooled you, you can't understand.

When Carcharodon searched the pre-Bay,
They consumed all they saw as their prey.
Now the search for their teeth,
As they rise from beneath,
Can consume every spare waking day.

From long Latinate names my mind begs
For relief. When done combing dregs
Of the cliffwash for sport,
I keep my terms short.
See these Hemis and Chubbies and Megs?

At the Cottages, Calvert, or Bayfront,
When waves break the clay until blunt,
They release to the beach
Things that lived before speech.
So enough of this talking – let's hunt!



Calvert Cliffs State Park, Maryland. Photo from dnr.maryland.gov/publiclands.

DEADLINE CALENDAR

Deadline for registration at the next MWF Convention is **Feb. 28th**. The convention and show will be held **April 5th-6th** at the Sandhills Global Event Center in Lincoln, Nebraska, hosted by the Lincoln Gem and Mineral Club. More information is at lincolngemmineralclub.org/happenings/2025-midwest-federation-convention.

Valerie J. Meyers, Editor
Midwest Federation of Mineralogical and Geological Societies
vjmwriter@yahoo.com
Post Office Box 13456
Overland Park, KS 66282-3456

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Please notify the Secretary of any violations.

ANYONE UP FOR A TRIP TO FELDKIRCH?



Sylvia Crilly, a member of Show-Me Rockhounds of Kansas City, sent in this photo with the comment: "Saw these and other incredible rocks, gems, etc. at a shop in the western Austrian town of Feldkirch. The ammonites were huge: probably 24-30 inches in diameter."

April Issue Submission Deadline Is March 5th!