

Eastern Indiana Gem & Geological Society

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Memberships:

Annual dues \$15 Individuals \$20 Families

Please send dues to:

EIGGS PO Box 1724 Richmond, IN 47375

[5] Next meeting: Thursday, May 5, 6:30 p.m.

[14] Club Clean-up Day: Saturday, May 14, 10 a.m.

President's Message

Hello, rockhounds,

There isn't much to report on this month other than spring has finally sprung, and our club Clean-up Day is set for Saturday, May 14 at 10 a.m. We have a number of projects to work on (see page

3). We need all the help we can get. projects we can complete. I expect we will be at the club house until around 2 p.m. If you are volunteering, please contact an officer (contact information in left sidebar) to let them know so we can have

will be pizza and drinks provided by the club.

The more volunteers we have, the faster we can finish and the more an accurate list of volunteers. There

The board is working toward reducing the amount of reporting at the monthly meetings and bringing back show and tell, presentations, guest speakers, etc. I believe learning about the geology of the rocks we cut and polish in the shop would give everyone a greater appreciation for the pretty rocks mother nature has provided us.

See you at the May 5 meeting and at the Clean-up Day May 14!

with others in the club. This is a great chance to

get to know your fellow club members, see some interesting stones and hear some good stories. Hope to see you there!

SHOW & TELL

Who: Club members

What: Bring a favorite

rock, mineral, gem, cab,

slab or specimen to share

When: at May 5 meeting

April 2016

Mark

INSIDE THIS ISSUE

PAGE 2 Volunteer to mow lawn



or else donate a goat or two?

PAGE 3 May 28 Flint Ridge Trip



Updated trip information

PAGE 5 Richmond Fossil Trail



Fossil hunting in the Richmond area

PAGE 10 Bluesprings Caverns



Cave trip coincides with Bedford show



Members present

Libby Adams, Lisa Atchison, Deb Chagares, Judith Echano Medina, Scott Gibson, Joy Ingerman, Faithe Jones, Naomi Jones, Xavier Jones, Mark Lisota, Lynetta Longnecker, Marty Lucas, Jim Lucas, Dave Lundquist, Lisa Morris, John Morse, Mary Ann Morse, Kyle Nash, Lisa Nash, Patrick Pierce, Joe Schlemmer, Danny Spurgeon, Dave Straw, Jamie Terhaar, John Terhaar, Johnathon Terhaar, Bob Vetter, Joe Wirrig.

Meeting Mark opened the meeting at 6:30 p.m.

New members

Lynetta Longnecker is a retired phone worker and wants to learn about jewelry and stones.

Lisa Nash used to work in the Richmond schools and Cambridge City schools. She now has a horse rescue.

Kyle Nash works at US Bank and at Pizza 3.14.

Lisa Atchison works at a geo-technical engineering firm, does lampwork and silversmithing and would like to learn lapidary. Introduced to club by the Indianapolis club.

Joe Schlemmer is a glass artist from Indianapolis.

DVDs and player

DVDs were donated to club by Jewelry.com. Discussion of playing them at monthly meetings. Is the club DVD player working? Can it be hooked up to an older model TV? If not, Johnathon Terhaar will donate a DVD player.

Field Trip

Flint Ridge trip May 28. Mike Manning will follow up with details. (see updated trip information on page 3)

Scholarship

Discussion of increasing the high school scholarship to \$1,000; the board needs to review the scholarship application before next school year. It will be submitted to the schools as a digital file.

Treasurers Report Expenses: \$3,081 Income: \$9,705

Super Saturday

Discussion of 4-H super Saturday: April 23, 9 a.m.-12 p.m. Come out for a fun morning getting kids interested in geology.

Show Update

The caterer has offered to provide sack lunches for school kids.

Mowing Volunteers Needed

Please don't make us buy a goat!

ike to work outdoors? Want to help out your rock club?

We need a volunteer (or a few volunteers? or a goat?) to mow the yard at the clubhouse.

The club has a nice riding mower for you to use, and you will be

reimbursed for any gas you put in the mower.

Depending on the weather conditions, the grass should be mowed once a week. We could post a monthly sign-up list, if that would help distribute the workload.

If you would like to help out the club, please contact Dave Straw and he will show you the mower, property lines, and everything else you need to know. Strawdl@aol.com or 765-966-4249.

Streamline registration process for Student Day at the show. Patrick will field calls to organize field trips to Student Day.

Shop News

Alan Kempton will not be mowing the grass anymore. The club hopes members will volunteer to mow.

A new air conditioner will be purchased for the workshop.

Clean-up Day

May 14 will be the next Club Clean-up Day starting at 10 a.m.

Marty Lucas motion to close the meeting. Joe Wirrig seconded the motion. Meeting closed at 7:03.

LAPIDARY LAB USAGE & HOURS .

<u>Please remember that members using the</u> club's equipment are required to attend six regular club meetings a year. Participants must also be trained in proper equipment usage.

There is a \$2 fee per lab session for equipment usage & maintenance.

Tuesdays 6-8 p.m.

This lab is perfect for beginners and those with intermediate skill levels since there are experts on hand to teach basic and advanced skills.

Thursdays 6-8 p.m.

The lab is usually open on Thursdays. Call or text Deanna Smith (765-914-4811) or Alma Glisson (937-231-3024) to be sure someone will be there.

Sundays 6-9 p.m.

The lab is usually open on Sundays. Call or text Missy Killion in advance to be sure someone will be there. Her number is 765-960-7635

Looking for work to be done, Joe Wirrig cleaned up the lapidary room and swept the floor during a Clean-up Day last fall. The lapidary equipment generates a lot of dust, so feel free to wipe down the surfaces in the room or vacuum any time!

> Brush in hand, Mike Ragen works last fall to seal the roof with a tar compound to prevent further leaks. The insulation in the garage needs to be taken down to assess the extent of the water damage and leaks, and the roof needs to be resealed.

CLEAN-UP DAY: MAY 14

hen members of other clubs hear about our club house, they say, "Wow, EIGGS is so lucky to have its own building." However, that benefit comes with responsibilities, and one of those is upkeep.

To help with that upkeep, come out to the club Saturday, May 14, at 10 a.m. for the first Club Clean-up Day of the year.

We will have fun, and there will be something for everyone to do, no matter what your skill level. Wear work clothes and bring gloves. Food and drinks will be provided.

UPCOMING PROJECTS:

- Pull old air conditioner and install new one in the shop
- Work on eaves & downspouts all around building
- Correct electrical wiring issues in the basement
- Fix loose electrical connection to building at top
- Install new cellar door and repair outbuilding garage door
- Scrape & paint second floor near stairs & also outside of the library
- Clean up around outbuilding garage
- Trim trees to facilitate mowing
- Clean up fallen ceiling tiles on the second floor
- Renovate area outside garage door (rock garden)
- Work on women's rest room ceiling & floor
- Discard junk in storage area and outbuilding garage
- Remove garage ceiling insulation
- Re-seal garage roof



MAY 28 FIELD TRIP: FLINT RIDGE, OHIO

like Manning will lead a field trip to Flint Ridge, **IVI** Ohio, Saturday, May 28. Flint Ridge is a nearly eight-mile-long vein of high-quality flint located in eastern Ohio. This trip will be during the flint Knap-*In Weekend so you could visit that event, too. (see* flyer on page 14)

Below is updated trip info from Mike. He would like a count of the number of people from our club who plan to go. Let me know if you plan to attend and I will get a final number to him.

(EIGGSnews@gmail.com or 765-960-6474)

Mike says: To go to Flint Ridge, we are planning on leaving from the McDonalds on Rt. 202 (Huber Heights) near I-70 at 8 a.m. on May 28. If it is calling for some rain, I will still be going unless it is going to be thunderstorms all day.

We will be travelling to the Nether's farm. The drive time is about two hours from where we are meeting. It is just east of Columbus near Newark, Ohio. Maps can be given out the day of the trip.

The cost is 50 cents a pound plus a \$5 entrance fee. You can make it in any vehicle. You just park the vehicle and get out to collect flint.

I talked to them and there will be some holes open to collect in or good flint can be picked up anywhere in the property. It is easy collecting unless you want to get in the holes and dig on one of the flint ledges. You won't go home empty-handed.

Wear long pants and sturdy shoes. Also, gloves are a must since the flint is sharp. If you have a rock hammer, you can bring it to chip the flint. Some people bring more heavy equipment if they plan to attack the ledge (ie. sledge hammers, chisels, shovel, etc.)

If you plan to chip the flint, MAKE SURE TO BRING AND WEAR SAFETY GLASSES OR GOGGLES. Bring a bucket or pack to put your treasures in. Some people like to wrap their good crystals in newspaper or paper towels.

Bring water to drink and a sack lunch. If we have enough people going, we can set up a table and have a shared lunch.

You can leave any time you feel like it. Once you find out how to get there, you can figure out how to return back to the interstate. There is a portapotty on the premises.

If you have further questions, you can call me 937-681-0264 (cell) 937-552-4705 (home).





WELCOME, NEW MEMBERS! EIGGS gains new members in April

Lisa Atchison

Occupation:

Accounting/Admin at Patriot Engineering/Geotechnical Division

Location: Indianapolis, IN

When did you become interested in rocks, gems & minerals?

My parents belonged to an outdoorsman club when I was a little girl. One of the

members would hide polished rocks along the little creek and nature



trail for us kids to find. I have been making glass beads and jewelry for over 12 years and recently acquired a cabochon machine. I would love to make cabs for my jewelry creations.

What do you hope to learn from being a club member?

I would love to learn more about the different rocks and gemstones, learn to cab and where to go on rock hunting field trips!

What areas are you most interested in? Lapidary What have you learned so far?

...that I have a lot to learn!

What are a few of your hobbies or interests?

Lampworking, gardening, electroforming, glass lapidary, photography

Anything else you want to share?

I have been married to my best friend, Steve, for 33 years. We have a daughter who was just married last year, and now have a wonderful son-in-law.

Kyle Nash

Occupation:

Universal banker

Location: Cambridge

City, IN

When did you become interested in rocks?

During my freshman year of college I took a geology class. We had a section over rocks and the Earth. and that made me get interested in rocks.



What do you hope to learn from being a club member?

I want to expand my knowledge of rocks, because there are lot of them. I also want to learn how to learn to shape the rocks to make things.

What areas are you most interested in?

Making cabs

What have you learned so far?

Cutting, grinding

What are a few of your hobbies or other interests?

Playing board games, watching movies (I like animated movies and comedies), hiking

Anything else you want to share?

I have two favorite dogs: Peanuts and Bones. I like travelling: I was six weeks old when I traveled to Spain.

Lisa Nash

Occupation:

former teacher's assistant and home health care: now has a horse rescue **Location:** Cambridge

City, IN

When did you become interested in rocks?

I really don't know. I've just always wanted to work with stones. They are God's creation, and they are beautiful.



What do you hope to learn from being a club member?

Lots! Lots and then more! I want to learn to cut stones and wrap them. I want to learn how to identify them, too: that's the most important.

What areas are you most interested in?

Wrapping and identifying

What have you learned so far?

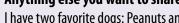
So far I have learned to cut on the trim saw and work on the grinders to shape and polish the stones.

What are a few of your hobbies or other interests?

One of my interests is rescuing horses because they are beautiful and calming. They are also great for therapy.

Anything else you want to share?

I enjoy travel, riding horses and working with rocks.



Rock Pickings: April 2016

Fossil Passport

from https://sites.google.com/site/whitewatervalleyfossilhunt/

ong before woolly mammoths roamed the frozen plains, long before dinosaurs existed, Indiana was covered by a shallow sea teeming with life. The fossils found in the Whitewater Valley give us some idea of what life was like in Indiana 445 million years ago.

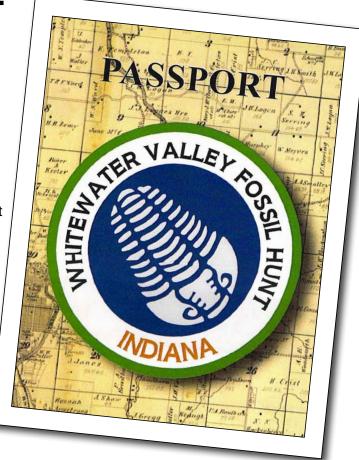
The Whitewater Valley Fossil Hunt is a free passport program designed to educate visitors about our fascinating past and promote experiential tourism in eastern Indiana. The project is a combined effort of the Wayne County Convention and Tourism Bureau, Earlham College Geology students, and interested volunteers.

To participate in the program:

Step 1 Pick up a Whitewater Valley Fossil Trail Passport at the Old National Road Welcome Center in Richmond, IN or at the Joseph Moore Museum on the campus of Earlham College.

Step 2 Explore the Whitewater Valley & collect at least five fossils.

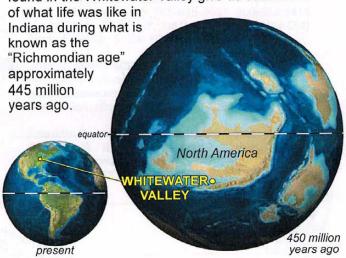
Step 3 Bring your passport and fossils to the tourism bureau or the Joseph Moore Museum to receive your completion stamp and patch.

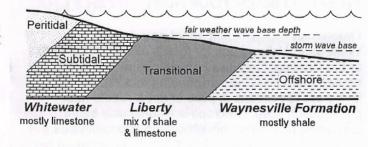


Travel back in time 445 million years... Welcome to tropical INDIANA

Long before woolly mammoths roamed the frozen plains, long before dinosaurs existed, Indiana looked a lot like the Bahamas do today.

During the late Ordovician, much of North America was covered by a shallow sea teaming with life. Indiana was located south of the equator. The fossils found in the Whitewater Valley give us some idea





The 3 Richmondian rock formations found in the Whitewater Valley are at the top of an alternating sequence of shale and limestone found throughout the area around Cincinnati.

The *Waynesville Formation* is the oldest. It is mostly shale from a muddy, offshore environment. The fossils found there are delicate & unbroken.

The *Liberty Formation* is a mix of shale and limestone. It was deposited in a transitional environment reached by storm waves, but untouched between storms.

The *Whitewater Formation* is mostly limestone, indicating it was deposited in relatively clear, shallow water. It contains lots of fossils that show evidence of being battered and broken by wave action.

ON THE ROAD: RICHMOND FOSSIL HUNTING

The Richmond Convention & Tourism Bureau suggests the following sites for local fossil hunting:

Richmond Fossil Park (on Bridge Avenue, just west of Sim Hodgin Parkway in Richmond) Collect fossils from the rubble pile and on the near shore of the creek. A nice outcrop of the Whitewater Formation is visible on the

far side of the creek.

Whitewater River Valley Gorge Trail (between Test Road and Waterfall Road, Richmond) Collect loose fossils along the trail or in the stream bank at the base of Thistlethwaite Falls.

Thistlethwaite Falls In the early 1800s, Timothy Thistlethwaite blasted a new channel in the West Fork of the Whitewater River to direct the water over this rock formation to

provide more waterpower to his nearby sawmill. This waterfall is located just south of Waterfall Road across from Springwood Park.

Fairfield Causeway Road (just west of Brookville Lake, Brookville) The Waynesville (eastern outcrop) and Liberty (western outcrop) formations out-



crop along the south side of the Fairfield Causeway Road. Park near the lake and walk up the hill. Watch out for traffic and do not climb on the outcrops.

Fossils That Can Be Found In The Whitewater Gorge

BIVALVES - Bivalves like clams, scallops, and oysters had shells that dissolved soon after burial. Fossil bilvalves are typically impressions of the shells in mud or casts created when mud filled an empty shell.



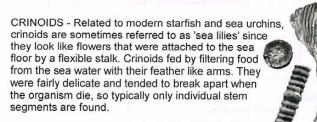
BRACHIOPODS - Many different kinds of brachiopods are found in the Whitewater Valley. The fossils have two ridged, hinged shells with a small hole in the shell near the hinge. A stalk protruded through this hole and fastened the animal to the sea floor. Brachiopods ate by filtering food from the water.

BRYOZOA - These twig- or net-like fossils were home to thousands of tiny animals. It is common to find fossils covered in a thin mesh of bryozoa. Bryozoans fed on microscopic organisms and plants by projecting tentacles with tiny moving filaments into the water through the holes in their external skeletons.

CEPHALOPODS - squid-like animals that lived in chambered cone-shaped shells. Nautiloids reach up to 15 ft in length and feed on smaller creatures they caught in their tentacles.



CORALS - Both horn-shaped and encrusting colonial corals are found in the area. Colonial corals have star-shaped pores which are much larger than those of bryozoa. Like modern corals, these animals did not move, but captured food from seawater.



GASTROPODS - Like bivalves, most snails shells were not preserved, so the fossils found are mostly shell fillings or impressions. Fossil snails, like their modern cousins, crawled around the bottom scraping algae and other small food particles from rocks and plants.

TRILOBITES - Trilobites are extinct, bug-like scavengers that found food in the sea floor muds. Like modern insects and crabs, trilobites shed many jointed skins as they grew. These fragile skeletons were easily broken apart by waves, so usually only pieces are found.



ON THE ROAD: RICHMOND FOSSIL HUNTING

from josephmooremuseum.wordpress.com/

Richmond is our town, but did you know that it's given its name to a section of geological time? The Richmondian age lasted from about 449 to about 445 million years ago, during the Ordovician Period.

Our town looked very different 449 million years ago! It was so close to the equator that it was warm and humid. It was at the bottom of a shallow sea that covered most of what is now the midwestern United States. There were large mountains to the east, with volcanoes like those now found in Japan. These types of volcanoes are formed as an ocean plate subducts, or moves underneath, a continental plate. When the ocean plate moves down into the Earth's mantle and melts, the magma rises through the continental plate to form volcanoes.

The Richmondian ocean was full of life, but we would not recognize most of the creatures living there, such as shelled animals called brachiopods (Greek for "armfoot"). (see chart on page 6) Even though brachiopods are related to mollusks like clams or scallops, their bodies are quite different: clams' shells are symmetrical and they have a left and right shell that are shaped the same, but brachiopods have a top and bottom shell that are shaped differently. The rocks around modern Richmond have fossils from many different brachiopod species, including Hebertella, Hiscobecus and Rafenesquina.

Corals, bryozoans and crinoids were also common in the Richmondian ocean. (see chart on page 6) Corals first became common in this area during the Richmondian. Most of the coral reefs in today's oceans are formed by many individual corals (a relative of jellyfish!) living in colonies together. The Richmondian horn corals were solitary, with "horn" the home of a single animal. The Richmond Fossil Park contains many fossils of the horn coral Grewingkia.

One animal that looked very similar to today's colonial corals, and their fossils have many small openings where the individual animals lived were the bryozoans ("moss-animals"). Bryozoans may look a lot like corals, but they are actually more closely related to brachiopods.

The strangest looking of the Richmondian's ocean creatures — they looked like an upside-down starfish on a stem — are the Crinoids ("lily-forms"). The stem kept their arms off the bottom so that they could catch food from the water. Crinoid stems are very common in the rocks of modern Richmond.

The top predators of the Richmondian ocean were nautiloids, distant relatives of today's squids. They had shells that looked like torpedo cases and could be anywhere from a few inches to eight feet long. A hungry nautiloid could eat anything it wanted!

The astonishing animals that lived here so long ago are called the Richmondian Fauna, and their fossils are very common in the rocks around modern Richmond..

To learn more about nearby fossil-hunting sites, visit the Joseph Moore Museum and get your fossil passport!









- At the base of the Thistlethwaite Falls club member Gary Geyer looks for fossils. Student groups participating in the Whitewater Valley Fossil Hunt look for fossils near Thistlethwaite Falls. photo from facebook.com/fossilhunt
- ■This is an example of fossils that can be found in the road cut debris pile in the Richmond Fossil Park.
- Rock from local road cuts is delivered to the Richmond Fossil Park on Bridge Avenue just west of Sim Hodgin Parkway. For children, this is a safe alternative to searching along busy roads.

>> Jeweler's Bench: Jan Roestamadji

What spurred your interest in jewelrymaking?

> I've always had an interest in jewelry because I love to accessorize. It is fun; it expresses you, and it is a wonderful way to mix your wardrobe with your personality.

How long have you been making jewelry?

I have been fixing and repurposing my own jewelry since I was young. In 2005, I started wire-wrapping, and for the past two and a half years I have been working with Joe Wirrig.

What types of jewelry do you make?

I make original, one-of-a-kind, funky art pieces. I really like it all: I get into phases where I like to make just rings or earrings or bracelets. Sometimes I like to work with stones; sometimes I like to

work with original and mixed metals. I love mixed metals. I am starting a phase where I'll make ceramic/stoneware cabochons and use metal to finish the pieces.

What is the most rewarding thing about making jewelry?

The most rewarding thing is that people actually buy it. I think it validates me because they are seeing something in my pieces, (which are a reflection of me), that resonates with them and their own creativity.

How did you get started?

I started out wire-wrapping glass cabochons that I made and then I wanted to do more. I wanted to create pieces that I had seen yet wanted to change them and I wanted to create pieces of my own. I wanted to creatively "birth" something.

What is your process when you decide to make a piece?

A lot of times I plan a piece and the piece "stops me" and tells me where it wants me to go with it. The end result is a very creative fine art piece of jewelry. I make what I like and what turns me on. I wear it and then see if other people like it when I am wearing it.

What are your favorite materials to work with?

My all-time favorite is silver, but I really enjoy it all. I now have a desire to work with raw gems, which I purchased at the gem show.

In addition to the stones you have for jewelry making, do vou collect other stones?

I've been a rock collector since was little. I've collected everything. I even collected cow toenails and would have made jewelry out of them if I could have. I have collected river rocks, shells and driftwood and have made jewelry out of all of that.

Do you purchase cabochons to set, or do you mostly set cabs you have made yourself?

I am starting to make more but have purchased a lot that Joe has made and other artists as well.

How has being in the EIGGS club helped you with your jewelry work?

It has helped me, but I don't get over there often. I've gained most of my experience working with Joe.

What is the most challenging part of making your pieces?

When I feel pressured, I have to take a step back and breathe deeply because I want to make it look beautiful -- but the piece will become what it wants to be, whether I stress about it or not. I have found that all of the stress you put into a project really doesn't matter because everything is fixable... after you come back in, you get a different perspective and can see how it works into the entire piece. **continued** on page 10



Display at Youniques Boutique in Greenville, OH



Silver & copper pendant Silver, stone & pearl





Silver pendant

Name: Jan Roestamadji

jeweler, metalsmith

From: Arcanum, OH

Jewelry media:

(gold is next!)

silver, copper, brass,

glass rocks and gems

Member since: 2014

Occupation:

Jeweler's Bench: Jan Roestamadji

continued from page 9

Where do you draw your inspiration from?

Honestly, I look online and other places and want to replicate and duplicate them with my own twist, but as I said earlier, the pieces wind up telling me where they want to go, whether I had planned for that or not.

Do you have a personal favorite piece of jewelry?

Every piece I make, I love, and it becomes my favorite -- at least until I create my next piece. Right now it is my thumbprint pendant. I cast my thumbprint in silver and then set a glass magnifier above it. It hangs on an Italian leather cord. It is my current favorite because it literally is ME in a fashionable design.

What advice would you give to others who want to make jewelry?

You must like jewelry and wear it yourself (or have a spouse who does) because you can't otherwise passionately create artwork from within.

Where do you sell your pieces?

Youniques Boutique in Greenville, OH. I have also sold copper pieces in my hometown of Chassell, MI, and hope to sell more there soon. The Upper Peninsula in Michigan was one of the world's largest suppliers of copper, until the mines shut down in the 1960s, but that area is still known as the Copper Country. I also sell in various art galleries in the area like the Richmond Art Museum and the Art Association of Randolph County. My pieces have won awards and are for sale during the exhibitions throughout Ohio and Indiana.

What awards and honors have you won for your pieces?

I've won first place in art exhibitions and competitions as well as at The Darke County Fair, in Greenville.

Why would you encourage people to get involved at the rock club?

I have been aloof because I do a lot of work at Joe's, but the camaraderie that I have begun to experience from starting to come to club events makes me want to get more involved. The people are intelligent, experienced and wonderful.

Besides making jewelry, what are your other hobbies and interests?

Photography, guitar and piano playing... I love art of all kinds and I am currently the gallery coordinator at Bear's Mill and am planning the year's art exhibitions.



Posing for a selfie, Jan Roestamadji, Joe Wirrig and Susan Kuhlman take a break from their work in their Monday silver lab.

What else about you would you like to share about yourself?

My husband and I had a joint exhibition: he had his oil paintings and I had jewelry. It was a wonderful, well-sold show. It was a blessing that we could create and show together. I am a cat person. I love my three cats — a mama and two children. We love to cook and eat. We have one son who just got married, and they asked us to marry them since we are both licensed to "marry and bury" in both Indiana in Ohio.

Anything else to add?

Joe has a sign in his shop that says, "Blessed are the weird people, the poets and misfits, the artists, the writers and music makers, the dreamers, the outsiders for they force us to see the world differently." He put that up because of me.

In this feature, we hope to showcase the talents of one member each month. If you would like to suggest a member, please e-mail EIGGSnews@gmail.com



Silver & copper pendant Wire-wrapped dichroic



glass pendants



Silver bangles



Silver & moonstone pendant



Copper & pearl bracelet



Silver & stone pendant

JUNE 24 OR 25 FIELD TRIP: Bluespring Caverns

t isn't every day that you can explore both a cavern AND a rock show in the same day. A trip to the Bedford, Indiana, gem and mineral show June 24-26 would give you the chance to do just that since Bedford is also the home of Bluespring Caverns.

Bluespring Caverns contains 21 miles (34 km) of surveyed passages. It has the longest known subterranean river in the United States with approximately three miles (4.8 km) of navigable river.

Visitors can take a one-hour river cruise through the cave where they will observe rock formations and the wildlife, including the rare sightless Northern Cavefish, which is abundant in this cave system. (see page 11)

The cave and adjacent museum are open daily from 9 a.m.-5 p.m. and tours run nearly every hour.

Ticket prices are regularly \$16 for adults and \$9 for children ages 3-18. Children under age 3 are free. Groups of 12 or more can take advantage of a group rate with \$12 adult tickets and \$7 childrens tickets.

If a group from the club wants to go, we could arrange carpools and book a group tour. If anyone wants to go, let's discuss it at the May meeting.

There is a somewhat steep 400' walk both into and out of the cave. The temperature in the cave is 52 degrees, so a jacket is recommended.

According to Wikipedia, "The cave system was discovered as early as the 19th century. Up until 1913, the entrance used was the exodus of a spring which drained into the White River. However, a dam completed in 1913 on the White River closed off this entrance. In 1940, a second entrance was created after a severe storm passed through the area. A small pond on the farm of George Colglazier vanished overnight, becoming a sinkhole, and the present day entrance into the cave system.

Soon word of the new opening to Bluespring Caverns spread and the Col-



■ Visitors enjoy a boat tour through Bluespring Caverns. http://www.indianacavetrail.com/

glazier family welcomed visitors from around the world as people descended on the small farm to explore the caverns.

The cave was formed in two types of limestone, Indiana and St. Louis, separated by a thin layer of shale.

Bluespring Caverns are one of four show caves in Indiana. The other three are Marengo Cave, Wyandotte Caves, and Squire Boone Caverns. Twin caves, located in Spring Mill State Park, about 15 minutes south of Bluespring Caverns, near Mitchell, Indiana offers a 20-minute boat tour into the cave which goes back about 600 feet (180 m). Twin Caves is owned and operated by the state of Indiana and the Indiana Department of Natural Resources."



SHARE YOUR THOUGHTS

This is YOUR newsletter and we want to hear from you! Please answer at least one of the following questions. E-mail your answers to EIGGSnews@gmail.com or mail them to EIGGS Newsletter, PO Box 1724, Richmond, IN 47375.

- 1. How did you find out about EIGGS and why did you join the club?
- **2.** How did you develop an interest in rocks, gems and geology?
- 3. Do you collect rocks, minerals, gems or fossils? How long have you been collecting? Do you specialize in any particular category? If so, what draws you to these items?
- 4. Do you have one favorite stone in your collection (gem, mineral, fossil, etc.), and if so, why is that your favorite?
- 5. Have you gone on trips to collect rocks? If so, where have you gone and what have you found?



MATCH GAME

eeling creative? If you are a builder or enjoy simple electrial projects, please talk to Patrick Pierce about creating a rock matching game for the kids' area of next year's show. In this game a child touches one electrode (stereo patch cord?) to a metal disk beside the name of the stone and also touches the disk next to the corresponding stone. If the match is correct, a bulb lights up to let them know they were right.





Bluespring Caverns: Unique System of Hoosier Caves





Beneath the limestone terrane of south-central Indiana are thousands of subterranean streams. Slightly acidic rainwater flows downward into joints and fractures of soluble limestone, eventually carving cavern passageways. Ultimately, these streams emerge as springs and flow as normal surface streams.

Nearly 18 square miles of sinkhole plain lies southwest of Bedford in Lawrence County, with more than 20 miles of explored passageways containing flowing streams that converge to form a large underground river. There, all drainage is through a single cave system known as Bluespring Caverns. The surface of the ground overlying most of this cave system is dotted with thousands of sinkholes, found across the scenic countryside of farmland, rolling pastures, and woodlands.

While traveling the river in Bluespring Caverns, visitors can view many forms of wildlife that have never seen the light of day. Evolving through many generations, fish, crayfish, salamanders, crickets, spiders, beetles, and other forms of animal life have adapted to the never-ending darkness and nearly constant temperature.



Indiana Geological Survey | An institute of the Office of the Vice Provost for Research 611 N. Walnut Grove Ave., Bloomington, IN 47405-2208 | 812.855.7636 | igsinfo@indiana.edu | igs.indiana.edu

GN007

UPCOMING SHOWS

April 30-May1—Cincinnati, OH: GeoFair, Cincinnati's Largest Non-Profit Gem, Mineral, Fossil & Jewelry Show, will dazzle visitors from 10 a.m. to 6 p.m. Saturday, April 30, and 11 a.m. to 5 p.m. Sunday, May 1, at the Sharonville Convention Center 11355 Chester Road. The 51st annual GeoFair will highlight "Mineral and Fossil Collections in the American Midwest." Admission is \$9 for adults & \$3 for children (uniformed Scouts enter free). Two-day adult pass is \$12. (\$2 discount coupon is on page 13 or download it at GeoFair.com) Free parking is available at the Sharonville Convention Center. More than 50 commercial vendors from as far away as Florida and Nevada offer stunning items for sale, ranging from curiosities costing mere pennies to museum-quality specimens costing thousands of dollars. Family-friendly activities at this year's GeoFair will include merit badge assistance for scouts, earth science games, gold panning, free mineral collections (for kids under 12), free fossils (for kids under 12), and free identification of your fossils, meteorites, minerals and gemstones.

April 30-May1—KALAMAZOO, MI: Annual show; Kalamazoo Geological and Mineral Society, Kalamazoo County Expo Center; 2900 Lake Street; Fri. 4 -8 p.m., Sat. 10 a.m.-6 p.m., Sun. 10 a.m.-5 p.m.; \$3 Admission, Children under 12 free; See a full size replica skull of the largest T-Rex ever discovered. Occupying almost 20,000 sq. ft., the show is a fun-filled event for the whole family. Discover the world of rocks, minerals, meteorites and fossils. Pick a gem and select a setting, or select a polish stone and have it wired-wrapped to take home a unique piece of jewelry. Pan for gold, learn about silver smithing, play a game, polish a Petoskey stone, crack open a geode, build a mineral collection, search out fossils, buy some beads -- all this and more. Learn about geology through the many KGMS members' displays; hands-on educational activities provided by Western Michigan University. Hourly door prizes and a grand prize drawing. KGMS is a 501(c)3 not for profit, educational organization; all show proceeds support geological education including scholarships to Western Michigan University. Contact Jerry VanNocker, 13101 East Armour Lane, Battle Creek, MI 49014, 269 979 3348; e-mail: show@KalamazooRockClub.org; Web site: KalamazooRockClub.org

May 6-8—FRANKLIN, NC: Annual show; Gem & Mineral Society of Franklin, NC, Carpenter Building; 1288 Georgia Rd.(US441); Fri. 10-5, Sat. 10-5, Sun. 10-4; Free Admission; Finished gold and silver jewelry, silver and gold findings, minerals, fossils, cab & facet rough, demonstrations, and much more.; contact Norman Holbert, 180 Camelot Estates Road, Franklin, NC 28734, 828 634-0350; e-mail: normholbert@comcast.net; Web site: www.fgmm.org

May 14-15—NORTH OLMSTED, OH: Annual show; Parma Lapidary, Soccer Sportsplex; 31515 Lorain Rd.; Sat. 10 a.m.-5 p.m., Sun. 10 a.m.-5 p.m.; Admission \$6; Join us as the Parma Lapidary Club hosts its 48th Annual Cleveland Gems and Jewelry Show! Tickets are good for both Saturday and Sunday. The show will include jewelry arts, gems, minerals, fossils, geodes, custom & handmade jewelry, and beads available for purchase. There will also be exhibits, live demos, kids' corner, silent auctions and much more. On Sunday (1-3 p.m.) an expert in vintage jewelry will identify and give you a verbal est. of value for your jewelry pieces for free!; contact Karl Creed, 273 Finchfield Circle, Macedonia, OH 44056, (330)-840-9422; e-mail: cjm101@hotmail.com; Web site: www.parmalapidary.com



May 14-15—ST. JOSEPH , MI: Show and sale; Blossomland Gem & Mineral Society, Lake Michigan Catholic Elementary School; 3165 Washington Ave.; Sat. 9 a.m.-6 p.m., Sun. 12-6 p.m.; Free Admission; contact Nancy Wolfe, (269)-983-4900

June 4-5—MANSFIELD, OH: Annual show; Richland Lithic and Lapidary Society, Richland County Fairgrounds; 750 N Home Road, Arts and Crafts Building; Sat. 10 a.m.-6 p.m., Sun. 11 a.m.-5 p.m.; Adults \$5, Seniors \$4, Children ages 6-16 \$3; The show will feature quality dealers selling minerals, fossils, beads and jewelry. The show will be held at the Arts and Crafts Building located in the Richland County Fairgrounds. The theme for the show is "Ohio's Gemstone Flint-Past and Present." The show will focus on the connection between the flint tools made by Native Americans and the jewelry and related objects made today. There will be special displays of artifacts and flint objects. Contact Tom Kottyan for info: e-mail: themineralhouse@netzero.net

June 24-26—BEDFORD, IN: Annual show; Lawrence County Rock Club, Lawrence County Fairground; US Highway 50; Fri. 10 a.m.-6:30 p.m., Sat. 9 a.m.-6:30 p.m., Sun. 10 a.m.-4 p.m.; Free Admission; 51st Annual Gem, Mineral and Fossil Show sponsored by the Lawrence County Rock Club, Inc. There will be wide variety of gems, jewelry, minerals, fossils, rocks, lapidary equipment & supplies, rockhound & prospecting supplies, 4-H project material, science project material. Contact Dave Treffinger, 13101 E 250 N, Loogootee, IN 47553, (812)-295-3463; e-mail: djt5766jkft@msn.com; Web site: www.lawrencecountyrockclub.org

August 19-21—SOUTH BEND, IN: MWF Convention & Show

Show and sale; Michiana Gem & Mineral Society, St. Joseph County 4-H Fairgrounds, Ester Singer Building; 5117 South Ironwood Rd.; Fri. 12-7 p.m., Sat. 10 a.m.-6 p.m., Sun. 10 a.m.-5 p.m.; Admission \$3, Children 6-12 \$1; Michiana Gem & Mineral Society 53rd Annual Jewelry, Gem & Mineral Show and Sale and 76th Midwest Federation of Mineralogical & Geological Societies Convention. Attractions include gem, fossil, mineral and jewelry dealers, lapidary arts demonstrations, exhibits, Kid's Korner, and silent auction.Contact John Davis, (574)-232-8823; e-mail: sumu95@hotmail.com; Web site: www.michianagms.org

Cincinnati

GeoFair® 2016

Sharonville Convention Center 2nd Year New Location Sharonville, Ohio 45246 11355 Chester Road

DIRECTIONS FROM I-75

eft on Sharon Road, passing under I-75. Southbound traffic Northbound traffic take Exit #15 (Sharon Road); turn take Exit #15 and turn right on Sharon Road.

All traffic go one block West to Chester Road and turn right. The Convention Center is located ½ mile on the left.

DIRECTIONS FROM I-71

Northbound traffic from Kentucky take I-75 north and follow the above directions from I-75. Ohio traffic go west on I-275 and follow the directions below.

DIRECTIONS FROM I-275

East- and West-bound traffic follow I-275 around the north right. The Convention Center is located ½ mile on the left. Sharon Road and go one block to Chester Road, then turn one exit south to Sharon Road (Exit #15). Turn right on side of the outer belt and take Exit I-75 South. Go

FREE PARKING

Admission

Teachers free with ID and paid adult companion Two day pass......\$12 Uniformed Scouts free Scout leaders pay adult rates Adults.....\$9 Children...\$3

\$2 OFF ONE ADULT ADMISSION

GeoFair 2016 April 30 & May I Sharonville Convention Center

Sharonville, Ohio 45246 11355 Chester Road

FREE PARKING 2016.3

"Ask the Expert" FREE IDENTIFICATION

Fossils, Minerals, Rocks & Meteorites: Saturday and Sunday 11 to 3 Gemstones and Jewelry

Saturday and Sunday 1 to 3

ILLUSTRATED EARTH SCIENCE PROGRAMS SATURDAY, APRIL 30

1 - 2 pm - Fine Mineral Collections of the Midwest Dr. Carl Francis, Maine Mineral & Gem Museum

John Moffitt, Paleontology Educator, Houston, Texas 3 - 4 pm - My Favorite Trilobites

4:30 pm - Friends of Mineralogy Midwest Chapter

SUNDAY, MAY I

Jeff Scovil, Professional Photographer, Phoenix, AZ 1 - 2 pm - Midwest Mineral Treasures

Species Dr. Brenda Hunda, Cincinnati Museum Center 3 - 4 pm - Using the Fossil Record to Save Modern

SWAP for MINERALS, FOSSILS & ROCKS

from 11 to 4 on Sunday. Material must be swapped or purchased with "swap dollars" available at the The swap is open from 10 to 6 on Saturday and swap registration desk.

GEOLOGY EDUCATION CENTER

Learn more about minerals, rocks and fossils, or receive Education Center operated by GeoFair and geology Cincinnati and Miami University, Middletown. students and educators from the University of Scout Merit Badge assistance at the

FREE MINERAL COLLECTION FOR KIDS

Everyone under age 12 can select mineral specimens and begin their own collection. Mineral specimens are compliments of www.geofair.com.

GEODE CRACKING

Visit the geode cracking booth and decide if you want to open a quartz crystal-lined geode.

DISPLAYS: Gems, Minerals, Fossils & Jewelry from over 70 public and private collections

featuring Mineral and Fossil Collections of the American Midwest

Museums:

A.E. Seaman Museum, Michigan Tech University Cincinnati Museum Center

Cranbrook Institute of Science

Indiana State Museum

Limper Geology Museum, Miami University Wayne State University Geology Museum Maine Mineral and Gem Museum

Wittenberg University Geology Department

Organizations:

Greater Cincinnati Lapidary & Faceting Society Dayton Gem and Mineral Society Ohio Geological Survey

Private Collections & Show Vendors

HOBBY MAGAZINES

Australian Journal of Mineralogy Melbourne Philadelphia, PA Mineralogical Almanac Rocks & Minerals

HEADOUARTERS HOTEL

Cincinnati, Ohio 45241 (one mile from Geofair) Call 513/771-0300 and mention GeoFair or the Gem & Mineral Show for a special rate. (after La Quinta Inn & Suites, 11029 Dowlin Drive April 15 the same rate if space available)

GEOFAIR SPONSORS www.geofair.com

members. Visit the website for more information GeoFair 2016 is co-produced by two Cincinnati or sign-up at the GeoFair Information Booth. geoscience organizations that welcome new

Dry Dredgers – an organization of amateur paleontologists & fossil collectors.

www.drydredgers.org

Cincinnati Mineral Society – an organization of amateur mineralogists & mineral collectors.

2016 Spring Flint Ridge Knap-In

Friday, May 27th 9 - 5 Saturday, May 28th 9 - 5 Sunday, May 29th 9 -2

Held at the
Flint Ridge State Memorial
7091 Brownsville Rd
Glenford, OH 43739

Everyone is Invited!

Come and join us for a fun and educational weekend. Witness craftsmen and artisans demonstrate how to make arrowheads, spears, stone tools, bows, atl-atls, stone pipes, cordage as well as other items from hide and bone. Take a nature walk through the woods on the park trails and see the remains of the ancient quarry pits left behind by the native people. Then take a tour of the museum to learn about the history and geology of Flint Ridge.



Admission is \$5.00 per vehicle which

includes free

Museum Admission

Hosted by: The Flint Ridge Lithic Society in conjunction with the Licking Valley Heritage Society.