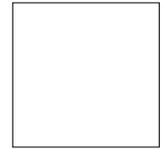


Michiana Gem & Mineral Society  
Jason Hefner, Editor  
229 East State St  
Etna Green, IN 46524



January 2018

Volume 58 Number 1

**THE  
ROCKFINDER**

**We're on the Web! See us at: [www.MichianaGMS.org](http://www.MichianaGMS.org)**

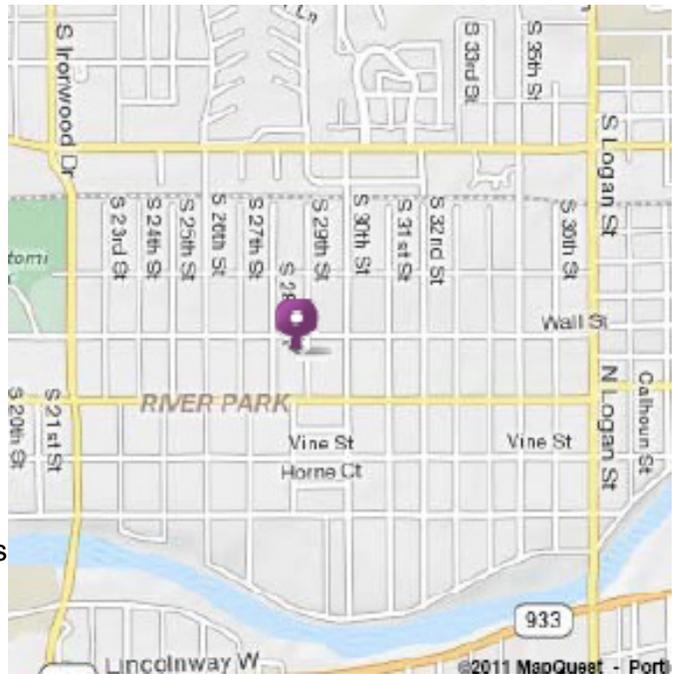
The purpose of the Michiana Gem & Mineral Society is to promote the study and enjoyment of the earth sciences and the lapidary arts, and to share lapidary knowledge and techniques. General meetings are usually held the fourth Sunday of each month at 2:00 p.m. at,

Our Redeemer Lutheran Church  
805 S. 29th St.,  
South Bend, IN.  
Please see the map to the right.

Doors usually open at 1:30 for meet & greet time.

Regular meeting exceptions include May (third Sunday), July (Club Picnic), August (Club Show) and the November/December meeting and Christmas party.

Board meetings are held before the monthly meetings. The annual club show is in late August.



**DUES**

Yearly Membership Dues are payable by December 15th of each year. Please choose type of membership below.

- Individual \$15.00     Family \$20.00
- Junior \$1.00         Subscriber \$7.50

Please indicate areas of special interest.

- General Geology     Gems & Minerals
- Fossils               Micro mounts
- Crystals             Field Trips
- Cabochons          Faceting
- Carving              Beads
- Jewelry Making

Name(s) \_\_\_\_\_  
 Street \_\_\_\_\_  
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 Phone(s) \_\_\_\_\_  
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Please send your dues and the bottom half of this form to:



Please read and sign this section

With my signature I hereby release the Michiana Gem and Mineral Society, Inc., and its individual members and the owners of any premises upon which I enter under permit granted to the society, absolutely free of any liability whatsoever, to my person or property, and further I will respect the equipment and property of the aforesaid owners.

Signed \_\_\_\_\_ Date \_\_\_\_\_  
 Signed \_\_\_\_\_ Date \_\_\_\_\_

Family Information:

Name: \_\_\_\_\_ Birthday: \_\_\_\_\_  
 Name: \_\_\_\_\_ Birthday: \_\_\_\_\_  
 Name: \_\_\_\_\_ Birthday: \_\_\_\_\_  
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Michiana Gem & Mineral Society  
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# THE ROCKFINDER

Volume 58 Number 1  
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Michiana Gem and Mineral Society [www.MichianaGMS.org](http://www.MichianaGMS.org) is a not-for-profit organization affiliated with the Midwest Federation of Mineralogical Societies <http://www.amfed.org/mwff/> and with the American Federation of Mineralogical Societies [www.amfed.org](http://www.amfed.org)

The *Rockfinder* is published monthly except July and August.

Please note that all items for a given issue of the *Rockfinder* are due to the **Editor** no later than the **5<sup>th</sup>** day of the previous month. This means that the due date for the March Issue will be February 5th. Advance items are appreciated. Material may be e-mailed to [hefner\\_family@hotmail.com](mailto:hefner_family@hotmail.com) or submitted via the U.S. Mail.

Editor:  
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Etna Green, IN 46524

Permission is hereby granted to reprint any original *Rockfinder* articles as long as recognition is given along with the reprint.

REMEMBER – Items in The Rockfinder that are **BLUE & UNDERLINED** are links to the internet or email addresses. Just click on them for more information.



## Science Alive

by Jason Hefner, Editor

Our next meeting is on January 28, 2018. After our normal business meeting we will be putting together the bags to hand out to all the kids who will visit Science Alive the following weekend. This is a chance to get the word out about our club and make a positive impact. Please plan on staying to help. If you have items to donate please bring them.

Do you have a bucket of fossils? How about a jar of shark's teeth or polished rocks? Please bring in items to share with the kids in



the area.

## Up & Coming

**Next Meeting: January 28, 2018.**

Doors open at 1:30. Meeting starts at 2:00.

**Place:**

Our Redeemer Lutheran Church  
(29<sup>th</sup> & Wall)  
South Bend, IN. (This is in River Park)

**Program:**

Science Alive preparation

**Host & Hostesses:**

## Board of Directors

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574-233-9178

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## [Geology Makes the Mayon Volcano Visually Spectacular—And Dangerously Explosive](#) By Maya Wei-Haas excerpted from smithsonian.com January 19, 2018

Last weekend, the Philippines' most active—and attractive—volcano, Mount Mayon, roared back to life. The 8,070-foot volcano began releasing spurts of incandescent molten rock and spewing clouds of smoke and ash into the sky, causing over 30,000 local residents to evacuate the region. By the morning of January 18, the gooey streams of lava had traveled almost two miles from the summit.

Though the images of Mount Mayon are startling, the volcano isn't truly explosive—yet. The Philippine Institute of Volcanology and Seismology (PHIVolcs), which monitors the numerous volcanoes of the island chain, has set the current warning level at a 3 out of 5, which means that there is "relatively high unrest." At this point, explosive eruption is not imminent, says Janine Krippner, a volcanologist and postdoctoral researcher at Concord University. If the trend continues, however, an eruption is possible in the next few weeks.

**Update January 22, 2018:** The Philippine Institute of Volcanology and Seismology raised the alert status for Mount Mayon to a 4 on a scale of 5, which means "hazardous eruption is imminent." Officials strongly discourage civilians from going within 5 miles of Mayon's summit.

Located on the large island of Luzon, Mount Mayon is known for its dramatically sloped edges and picturesque symmetry, which makes it a popular tourist attraction; some climbers even attempt to the venture to its smouldering rim. "It's gorgeous, isn't it?" marvels Krippner. But that beauty isn't entirely innocuous. In fact, Krippner explains, the structure's symmetrical form is partly due to the frequency of the volcano's eruptions.

"Mayon is one of the most active volcanoes—if not the most active volcano—in the Philippines, so it has the chance to keep building its profile up without eroding away," she says. Since its first recorded eruption in 1616, there have been roughly 58 known events—four in just the last decade—which have ranged from small sputters to full-on disasters. Its most explosive eruption took place in 1814, when columns of ash rose miles high, devastated nearby towns and killed 1200 people.

Continued on Page 5

## ALAA Updates by Tom Noe, Member

Here are some topics covered in the latest ALAA Newsletter. ALAA is the lobbying arm of the American Federation of Gem & Mineral Societies, working to preserve our recreational and collecting rights on our public lands. The complete newsletter can be found online. Just go to [amlands.org](http://amlands.org) or to this link:

[http://amlands.org/media//DIR\\_24612/DIR\\_533867/3d3df90b54665c22ffff8008ffffe906.pdf](http://amlands.org/media//DIR_24612/DIR_533867/3d3df90b54665c22ffff8008ffffe906.pdf)

Here are some of the topics covered by articles in the latest issue:

\*Rules for Meteorite Hunters on Public Lands (Basically, 10 pounds per year, you should be so lucky.)

\*On October 11, the BLM said it is withdrawing its previous application to the Department of the Interior to prohibit all new mining claims on 10.3 million (yes, that's million) acres of the West's public lands for at least 20 years. This is truly spectacular news for mineral development, recreational rockhounding and access to our public lands. It was gratifying to see that the BLM and new Secretary of the Interior had clearly considered comments made by organizations (like ALAA) and individuals (like rockhounds) who advocated on behalf of continued public land access and continued multiple use--not less.

\*ALAA is one source for detailed position papers on federal agency proposals and documents that you could use in framing meaningful comments on changes in public land access. Other sources include Citizens for Balanced Use (CBU) in MT, Blue Ribbon Coalition (BRC) in ID, and California Off-Road Vehicle Association (CORVA) in CA.

\*Using GIS or Mobile Mapping Apps for Rockhounding.

\*Update on sage grouse issues.

\*A nice article by John Martin on the National Monuments flap—this article is much more precise than the news accounts have been.

**Speaking of rules for collecting meteorites.....**Anybody see the Michigan Meteorite from 1/16/18?



Here is a screen shot from KRISTV.com showing the fireball the meteor made when it came through the atmosphere.

Pretty cool.

Several specimens have been found!!!

# American Federation of Mineralogical Societies News

## 2018 AFMS Convention

from the Tar Heels Gem & Mineral Club  
excerpted from [AFMS Newsletter Volume 71, Number 2 – Dec. 2017 - Jan 2018](#)  
Plans are still being finalized for the 2017 EFMLS/AFMS Convention and Show to be held in Raleigh, NC the weekend of April 4 – 8. This is an exciting venue to hold a show since North Carolina is home to numerous ruby, sapphire and emerald mines to name just a few of the gemstones found there.

Hosted by the Tar Heel Gem & Mineral Club, a dual Federation club (EFMLS and SFMS), the club show has always been an excellent one and the members are excited to share their annual event with us. Field trips, both during and after the show are in the planning stage.

Although a firm group rate is still being negotiated, we can tell you that the host hotel will be the Embassy Suites -Raleigh, Crabtree. A large mall with many restaurants and hotels are in the area. Embassy Suites offers a range of amenities and services including a shuttle to and from the airport, fitness room and pool. Every room contains two rooms - a separate bedroom and separate living room. A complimentary hot breakfast is included.

The tentative schedule is for the URC meeting to be held on Wednesday, April 4 and the AFMS Annual meeting on Thursday, April 5. The EFMLS meeting will probably be held on Friday, April 6. More information will be available on the AFMS website as contracts and schedules are finalized. Do check there often.

### President's message

by David Root, President excerpted from [MWF News December 2017 - Issue No. 567](#)

As I write this it is early December in Michigan and it is 60 degrees outside. I'm hoping that everyone is having a good holiday season. I'm also hoping that all the good little MWF clubs have all their dues paid and paperwork done. If not, get crackin'. We hear a lot these days about how all the traditional hobbies are suffering due to the internet. The MWF is fortunate in that we have many clubs that are doing very well.

Unfortunately, we also have some clubs that are struggling with declining membership and, sadly, some of them end up disbanding. One of the purposes of the MWF is to be a source of assistance to our member clubs. We have committees that offer services to clubs and individuals, and also committees that exist to advance the hobby.

But we have a bit of a problem; several of our committees need chairpersons. They include the Insurance, Endowment Fund, and Environment

[Read the rest here](#)



### Purpose of the AFMS

To promote popular interest and education in the various Earth Sciences, and in particular the subjects of Geology, Mineralogy, Paleontology, Lapidary and other related subjects, and to sponsor and provide means of coordinating the work and efforts of all persons and groups interested therein; to sponsor and encourage the formation and international development of Societies and Regional Federations and by and through such means to strive toward greater international good will and fellowship.

[www.amfed.org](http://www.amfed.org)



### Purpose of the MWF

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.

[www.amfed.org/mwf](http://www.amfed.org/mwf)

## Mayon Volcano continued from Page 2

Many of these eruptions are strombolian, which means the cone emits a stuttering spray of molten rock that collects around its upper rim. (Strombolian eruptions are among the less-explosive types of blasts, but Mayon is capable of much more violent eruptions as well.) Over time, these volcanic rocks “stack up, and up, and up,” says Krippner, creating extremely steep slope. That’s why, near the top of the volcano, its sides veer at angles up to 40 degrees—roughly twice the angle of the famous Baldwin street in New Zealand, one of the steepest roads in the world.

So why, exactly, does Mayon have so many fiery fits? It’s all about location.

The islands of the Philippines are situated along the Ring of Fire, a curving chain of volcanism that hugs the boundary of the Pacific Ocean and contains three-fourths of all the world’s volcanoes. What drives this region of fiery activity are slow-motion collisions between the shifting blocks of Earth’s crust, or tectonic plates, which have been taking place over millions of years. The situation in the Philippines is in particularly complex, explains Ben Andrews, director of Smithsonian’s Global Volcanism Program. “It’s a place where we have a whole bunch of different subduction zones of different ages that are sort of piling together and crashing together,” he says. “It gets pretty hairy.”

As one plate thrusts beneath another, the rocks begin to melt, fueling the volcanic eruption above. Depending on the composition of the melting rock, the lava can be thin and runny, or thick and viscous. This viscosity paired with the speed at which the magma rises determines the volcano’s explosivity, says Andrews: The thicker and quicker the lava, the more explosive the blast. Mayon produces magma of intermediate composition and viscosity, but it differs from eruption to eruption.

Think of a volcanic eruption like opening a shaken bottle of soda, says Andrews. If you pop off the cap immediately, you’re in for a spray of sugary carbonated liquid to the face, just like the sudden release of gas and molten rock that builds under a plug of viscous magma. But if you slow down and let a little air out first—like the gases that can escape from liquid-y magma—a violent explosion is less likely.

News outlets have been reporting on an “imminent explosion,” warning that Mayon will erupt within days. But given its activity so far, it’s not yet clear if, or when, Mayon will erupt. Volcanoes are extremely hard to predict as the magma is constantly changing, says Krippner.

Since the volcano began belching, small pyroclastic flows—avalanches of hot rocks, ash and gas—have also tumbled down its flanks. Though dangerous, these pyroclastic flows have the potential to be much more devastating. Previously at Mayon, says Krippner, these flows have been clocked in at over 60 meters per second. “They’re extremely fast and they’re extremely hot,” she says. “They destroy pretty much everything in their path.”

If the eruption continues, one of the biggest dangers is an explosive blast, which could produce a column of volcanic ash miles high. The collapse of this column can send massive, deadly pyroclastic flows racing down the volcano’s flanks. The last time Mayon burst in an explosive eruption was in 2001. With a roar like a jet plane, the volcano shot clouds of ash and molten rock just over six miles into the sky.

Continued on Page 6

## Mayon Volcano continued from Page 5

Also of concern is the potential for what are known as lahars, or flows of debris. The volcanic rumblings have been actively producing volcanic ash, a material that's more like sand than the kind of ash you see when you burn wood or paper, notes Krippner. A strong rain—as is frequent on these tropical islands—is all that's needed to turn these layers of debris into a slurry and send it careening down the volcano's slopes, sweeping with it anything that gets in its way. Mayon's steep sides make it particularly susceptible to these mudflows.

Residents suffered the full potential for destruction of Mayon's lahars in November of 2006 when a typhoon swept the region, bringing with it heavy rain that saturated built up material. A massive lahar formed, destroying nearby towns and killing 1,266 people.

Both Krippner and Andrews stress that local residents are in good hands under PHIVolcs' careful watch. The researchers have installed a complex network of sensors that monitor Mayon's every tremble and burp and are using their vast amounts of knowledge garnered from past events to interpret the volcano's every shiver.

And as Krippner notes, "it's still got two more levels to go." If PHIVoics raises the alert level to a 4 or 5, she says, "that could mean something bigger is coming."



Lava cascades down the slopes of the erupting Mayon volcano in January 2018. Seen from Busay Village in Albay province, 210 miles southeast of Manila, Philippines. (AP Photo/Dan Amaranto)