

# Nittany Mineralogical Society Bulletin

Nittany Mineralogical Society, Inc., meeting in State College, Pennsylvania  
Contact information on back page

Editor (see back page):

January, 2022

Visit our web site: [www.nittanymineral.org](http://www.nittanymineral.org)

David C. Glick

January 19<sup>th</sup> meeting

IN PERSON at BOAL HALL or via Zoom:

## The Seven Metals of Antiquity That Forged the Modern World

by  
Paul T. Fagley  
Pennsylvania DCNR,  
Greenwood Furnace State Park

Our January meeting is planned for Wednesday the 19th in Boal Hall (Boalsburg Fire Hall), 113 East Pine St., Boalsburg, PA 16827. Maps can be found on our web site.

7:15 to 7:45 p.m.: Social "hour." For this in-person meeting, we will not be serving refreshments. Feel free to bring your own non-alcoholic beverage. Current guidance in Centre County is to wear a mask at public indoor settings.

7:45 to 8:00 p.m.: Announcements, door prize drawing  
about 8:00 p.m.: featured program

The event has free admission, free parking (lot just east of Fire Hall along East Pine St.), and is open to all; **parents/ guardians must provide supervision of minors.** Bring your friends and share an interesting evening!

We hope you will join us in person, but if you can't, the Zoom link will be e-mailed to all paid members who receive our e-mails. Others are welcome to request it by e-mailing <[xidg@verizon.net](mailto:xidg@verizon.net)>. -Editor

Think about this: If it weren't for metals, we would all still be living in the Stone Age. For millennia, pre-historic humans fashioned tools and weapons from bone, wood, minerals, and stone. These were useful, yet very limited in their applications. Then, during the dawn of civilization and rise of agriculture around 10,000 years ago, early humans discovered seven metals, and found them useful. Soon, humans learned to work these metals into practical items, supplanting stone, and ushering in the age of metals. It wasn't long before they learned how to smelt and alloy metals, making them even more useful. By working them into tools and other items, they helped to advance civilization, and paved the way for our modern society. Even today, with over 80 known metals, we still use these seven metals of antiquity in our daily lives. This program looks at these seven metals and how humans discovered and found them useful.



Copper and quartz, from Blue Ridge Summit, Adams County, Pennsylvania, USA (Locality at [mindat.org](http://mindat.org)). Size: 11.3 x 10.3 x 3.6 cm." Lavinsky, iRocks.com – CC-BY-SA 3.0  
<https://creativecommons.org/licenses/by-sa/3.0/deed.en>

## Recorded Presentations

The majority of the NMS meeting Zoom presentations made during the pandemic were also recorded and may be viewed by using the links on the main page of our web site (scroll down to find them). I apologize for not having recorded the November presentation. -Editor

## NMS 2022 Spring Schedule

January 19: The Seven Metals of Antiquity That Forged the Modern World, by Paul Fagley

February 16: Applied Paleontology, by Dr. Charles E. Miller, Jr.

March 16, 6:00 p.m.: Geode Night, by Jeff Smith

April 20 and May 18: Landscapes and Geology of PA, by Bob Altamura, and another program to be announced

### ATTENDING THE JANUARY MEETING?

Donations of **one or two high quality, labeled door prize specimens** are invited.

Additional items can be placed on the giveaway table.

### Geo-Sudoku

by David Glick

This puzzle contains the letters AEGINPSTY; one row or column spells one of the peoples who worked with metals in antiquity. Each block of 9 squares, each row, and each column must contain each of the nine letters exactly once. The solution is on page 8.

T		P			G	E		
	G							
S			Y		A			
		G	S					I
		A		N	E		G	
				Y	T		E	A
				P		T	S	G
G	N		T	I		P	A	E
				G		I	Y	

### NMS January Meeting Door Prizes

Your President will try to remember to bring the door prizes which he forgot in December.



### FEDERATION NEWS

Nittany Mineralogical Society, Inc., is a member of EFMLS, the Eastern Federation of Mineralogical and Lapidary Societies, and therefore an affiliate of AFMS, the American Federation of Mineralogical Societies. The AFMS News is linked from our web site, <<http://www.nittanymineral.org>>, and can be found at <[http://www.amfed.org/afms\\_news.htm](http://www.amfed.org/afms_news.htm)>.

The AFMS December-January Newsletter was covered in our December issue.

The Eastern Federation is catching up rapidly, with elections having been completed. Contact David Glick (see page 8) if you'd like a copy of the January EFMLS Newsletter; several articles from it are reprinted below. In her cover letter for the issue, Editor Mary Bateman notes: "January is the beginning of the 70th year of the founding of the Federation. More to come on that in future issues.... The administration of the Federation is made up of not only the officers (...) but also of the many committees that keep it running. A full list of the committees is [included]. Please note that there are many "open" chairmanships. If you, or someone you know, might be interested in either serving as chairman or being on one of any of the committees, contact Ellery Borow at [rocknellery@fairpoint.com](mailto:rocknellery@fairpoint.com). It takes a village to run the Federation and that village is the member clubs and their members.

*-Editor*

### Election of EFMLS Officers for 2021-2022

Congratulations to our newly elected Executive Officers:

- Ellery Borow - President
- William (Bill) Stephens - First Vice President
- Larry Huffman - Second Vice President
- Karenne Snow - Secretary
- Barbara Ringhiser - Treasurer

The newly elected officers will begin their terms immediately.

To conduct the 2021-2022 EFMLS Officer Election, the EFMLS Executive Board-elected Election Administrator e-mailed ballots to 109 EFMLS member clubs and USPS mailed to an additional four (4) member clubs without a known e-mail address.

The list of member clubs receiving ballots was based on address information from the EFMLS Club Information Forms submitted to the EFMLS in February and March

2021, with additional member club address information obtained from the 2020 EFMLS Directory of Member Clubs. The e-mail addresses which bounced back were researched, corrected, and resent.

Pursuant to EFMLS Bylaws Article IV: Membership, Section 5. "Each member society shall, when requested, furnish the Federation with the names of its officers, the mailing address to which all Federation mail is to be sent, meeting place and meeting time, and shall correct this information within 30 days of any change." To accommodate clubs tardy with reporting updated address information, the ballot forms sent to clubs included a request that "If this Ballot does not reach the current club president, please forward accordingly." Every attempt was made to insure a voting opportunity to all member clubs.

Accordingly, e-mail ballots received voting for the slate of officers as presented were: eligible Officers, 6 ballots received; Member Clubs, 21 ballots received; Member Clubs, 2 ballots received by voice mail. There was one Member Club abstaining. The tally met the Bylaws quorum requirement.

Special note: As the voting process was unavoidably compressed in time, there were several elected positions for which there were no nominees. According to EFMLS Bylaws Article VIII: Executive Board, Section 4. "The Executive Board shall have the authority to fill any vacancy that might occur in any General Office until the vacancy for the unexpired term can be filled by election at the next annual meeting." The General Offices include President, First Vice President, Second Vice President, Secretary, Treasurer, Assistant Treasurer and Editor. The positions left un-filled include Assistant Treasurer and Editor. It is the intent that the Executive Board will temporarily appoint persons to fill the vacant positions pending a regular or special election by the full Board of Directors.

Thank you to all who participated in the process.

Respectfully Submitted,  
EFMLS Executive Board, Nominating Committee, and  
Election Administrator

## EFMLS President's Message

Lapidary, geology, mineral, fossil and jewelry clubs are dynamic entities. The people in them try new things, master old techniques, visit new places, meet new people, explore different ideas, use tried and true methods, and engage in new technologies.

Being dynamic organizations, clubs are made up of long-term members, brand new members and all manner of experiences in between. This diversity of experiences, backgrounds, ages, ideas, and goals ensures the continued presence of our hobbies in the future.

The Eastern Federation is much the same as an organization with a blend of many ideas and experiences. The people with those ideas and experiences are now engaged in preparing for a new year. Attention is being given to:

- Long-range planning in this high tech age is vital yet unpredictable as the pace of technological advancement is mind numbing.
- Field trips need significant attention as we all face ever increasing challenges to keep them available.
- Virtual media offers new and engaging opportunities with communication, cooperation and programs. Plans are being made to continue communications and discussions among and involving club presidents, editors, webmasters, safety committee chairs by utilizing technologies that include as many participants as possible. Technology mismatches with have and have-nots need discussion.
- Newsletters, bulletins, websites, and social media need special attention so each meshes with the other to present the best possible impression to members and the public.
- Our hobby organization's activities need to carefully engage with the continuing COVID conundrum.

There are numerous additional areas of discussion and opportunity to be had as we build on our strengths. Those discussions need the diversity of ideas, opinions, experiences and abilities we have in the people of this hobby.

Every day affords opportunities to learn, opportunities to teach. Let's use those opportunities to tap the potential to share the enjoyment, engagement, and energy of our rock, mineral, fossil, lapidary, and jewelry activities with our members and the public at large.

Happy New Year with all the best to you and yours in 2022.

Ellery Borow, President

## A tribute to Dr. Roger J. Cuffey

*Dr. Cuffey was a long-time supporter of NMS. He gave our January 1999 meeting program on "Dinosaur Travel in Mongolia: The Flaming Cliffs." -Editor*

Dr. Roger J. Cuffey, Emeritus Professor of Paleontology at The Pennsylvania State University, died on January 1, 2022. He is probably best remembered for his 40 years at Penn State where he mentored and did research. His courses included "Historical Geology," "Stratigraphy," "Paleoecology," "Dinosaurs," independent studies, and cross-country field trips. In June 2007 he retired, but continued publishing, doing field trips, editing and advising for others, and attending conferences.

Although specializing in fossil bryozoans, his paleontological research was diverse. Some of his publications include fossil fish, insects, dinosaur footprints, military geology, as at Gettysburg, as well as Pleistocene vertebrates. In the early 1970s, he gained much attention for the latter, which included a mastodon, at Frankstown, Pennsylvania. He authored more than 300 articles and monographs.

For the Pennsylvania Geological Survey, he published numerous articles in *Pennsylvania Geology*, in several guidebooks of the Field Conference of Pennsylvania Geologists, and in open file reports. He also edited manuscripts by others that the Survey published.

His research contributions are recognized. Since 1975, he was a fellow of the Geological Society of America. For his work in paleobryozoology, two fossil bryozoan species are named in his honor. The Late Ordovician bryozoan *Cuffeyella arachnoidea* is from the Cincinnati region. *Diplotrypa cuffeyi* is from Middle Ordovician strata of the Canadian Arctic. In 2019, he was presented with the Albert Nelson Marquis Lifetime Achievement Award and listed in Marquis Who's Who, the world's premier publisher of biographical profiles. He has also been cited in the second edition of Who's Who in Science and Engineering and fourth edition of Who's Who in American Education. In 1989, he received the Outstanding Teaching Award at Penn State. The Department of Earth and Atmospheric Sciences of



Dr. Roger J. Cuffey  
2015 photo by Charles E. Miller, Jr.

Indiana University awarded him the Owen Award in 2003. This honor is given to distinguished alumni of the Department. His most-cited work is a 1985 Geology article presenting an expanded classification for carbonate reef-rock textures.

He was a longtime member and past president of the International Bryozoology Association and also a member with the Paleontology Society, the Society of Vertebrate Paleontology and the Society for Sedimentary Geology. Dr. Cuffey served as a book review editor for the Paleontology Society's *Journal of Paleontology* from 1970 to 1975.

While at Penn State, Dr. Cuffey also served 10 years on the Treatise on Invertebrate Paleontology advisory committee at the University of Kansas. He later was a visiting research professor at the Jiangnan Petroleum Institute, now part of Yangtze University, in Hubei, China, in 1997. Additionally, Dr. Cuffey served on numerous committees and advisory boards and participated at many national and international conferences throughout his career.

To say he impacted people is an understatement. Roger Cuffey was a people person. A favorite story is how a young girl and her parents went fossil collecting with him. That young girl, Isabel Montanez, later became president of GSA (2017-2018) and a distinguished geologist. She writes: "He is SINGLE HANDEDLY the reason I went to college to be a paleontologist. Somewhere in the process I became intrigued with paleoclimatology but my past decade of publications illustrates how much the 'life' part of the Earth system is at my core." The seed for this may have been sown when he was a young boy. He took fossils to Dr. Tom Perry at Indiana University. Dr. Perry took the time - eventually becoming Roger Cuffey's doctoral advisor. Roger Cuffey also took the time. He was always very kind, encouraging, and helpful to literally anybody who was interested in fossils, geology, and other topics. He treated everybody as if they were all equally important. The great deal of time and energy he spent helping students, colleagues, and others advanced their lives and careers. His influence can be seen in his former students and in his sons. Both sons are geologists. Outside the classroom, Dr. Cuffey mentored and advised many young students. He gave talks to area civic organizations and advised pharmaceutical regulatory agencies on calcareous fossils and industrial

organizations concerning paleontologically oriented materials and issues. Dr. Cuffey also evaluated properties, estates and public lands for paleontological resources for various organizations.

My first encounter with Dr. Cuffey was on a 1974 Cross-Country Geology Field Trip that he co-led. Previously, he had been an officer in the army. Would the field trip be run like boot camp? Was there going to be reveille each morning? In retrospect, this probably was my most impressionable geology course. What a great way to study regional geology. In February 2022, I speak to the Harrisburg Area Geological Society. The title is "Applied Paleontology." A major concept is that of litho- and biostratigraphic facies changes of the Cretaceous from Kansas to Utah. This is a visual summary of our work on the 1974 cross-country trip. Many other topics in the talk relate to Roger Cuffey. It is because of his influence that the talk is dedicated to him. I had hoped he would have watched my presentation.

One of his non-geology interests was loud rock music, such as The Who and others of that ilk. At the 1980 GSA Northeastern Section Meeting, he reassured the audience that, regardless of the fossil group, paleontology studies have a common question that is asked. His next slide showed The Who's album cover that asked "Who are you?" The normally stoical audience broke into laughter.

To those of us who appreciated him, he was an amazing source of information, both geological and otherwise. I once asked a historical question about the Middle East and he gave a 25-minute recitation going back at least a thousand years. At dinner two days before his death, I mentioned a misidentification of a planet. He gave the celestial explanation as to why that identification was wrong. He was well read.

His most recent, big project was writing a monograph on Bermuda bryozoans. It was a compilation of his and his student's work in Bermuda. Unfortunately, time ran out for him and that never reached fruition. What he did accomplish, however, was influencing a lot of people and traveling the world, mostly in search of bryozoans. Some of that travel included Russia, China, Australia, Newfoundland, Bikini Atoll, and Antarctica.

Sadly, I have lost a mentor, a supporter, and a friend.

Charles E. Miller, Jr.  
State College, PA  
January 5, 2022

## Safety Matters – Morning Person Safety

Are you not a morning person? Can't do anything before coffee (or OJ, croissant, tea, bagel, sausage or whatever)? You are not alone. Many people need a boost to get going and are not really ready to do much beforehand.

What does it feel like before that morning coffee? Not coordinated, not focused, not awake, not listening? People who are not morning persons understand the wisdom of refraining from doing anything that needs coordination, focusing and listening - right? Being safe means knowing not to do any critical task until one is ready, awake, trained, aware, and alert. Safety is, in part, knowing one's limits.

If you are a morning person, afternoon person, or evening person, that is an important safety consideration. Additional considerations when making decisions include knowing one's skill set, knowledge of a task, level of training, having a safety kit at hand, and being aware of one's current tiredness.

Suppose one is not an evening person but must perform an activity needing focused attention in the evening hours, can evening work be accomplished? Yes, it can, but knowing and understanding one's limits means that they can be accommodated so long as extra care, attention and alertness are present. That does not mean one can charge ahead with abandon. It does mean one should carefully consider the task's requirements and one's limits when making judgements as to how to proceed.

People make judgements all the time - roads too slippery, night too foggy, feeling too tired, what would be the best wait before orienting the first slab saw cut, is one concerned about being too pressured - these are all judgement decisions. Before using a torch, operating lapidary machinery, hammering a rock, driving to a club meeting, being an afternoon person, judgements need be made about one's limits. There are a great many aspects of our hobby where knowing one's limits is advisable.

Please be safe by knowing and respecting your limits. Your limits and safety, matter.

Ellery Borow, AFMS Safety Committee

## WILDACRES – 2022 Spring Session MARK YOUR CALENDAR

It is official—the dates for the spring 2022 session of Wildacres will be May 16-22. Wildacres is located in the Blue Ridge Mountains near Little Switzerland, NC.

We are very fortunate to have another fabulous Speaker-in-Residence for the Spring Session -- Dr. Nathalie Brandes. Dr. Brandes is a geologist, author and distinguished college professor and researcher. She is Professor of Geosciences at Lonestar College - Montgomery in Conroe, Texas where she has been teaching for the past 17 years. In 2019, she was presented the Faculty Excellence Award in recognition of outstanding teaching methods and dedication to student success in the classroom and beyond.

Her current research focuses on ancient mining techniques as well as the history and geology of classic mineral localities. Her Wildacres presentations will focus on the last major gold rush in the United States (Goldfield, Nevada), silver mines in Norway, Mining in the Ancient World, the History of Mineralogy, and the Geology of Birthstones.

A special thanks to Helen Serras-Herman for procuring the Speaker-in-Residence and for the above writeup and biography of Dr. Brandes.

Because the dates for the spring session were just verified, the class schedule was not available when EFMLS News went to press. Watch your inbox for the announcement.

More information will be forthcoming as soon as it is available. In the meantime, if you have any questions please feel free to contact one of us.

Wildacres Workshop Staff

Steve Weinberger, Chair (cscrystals2@gmail.com)

Mark Kucera, Director (mark\_j\_kucera@yahoo.com)

Suzie Milligan, Registrar (smilligan@stny.it)

## Rutgers Geology Museum VIRTUAL Open House January 29, 2022

from the web site

<https://geologymuseum.rutgers.edu/annual-open-house>

This year is the Geology Museum's 150th Anniversary, so join us for a day-long celebration of the history of the Museum! Events and activities will be held on Zoom and Facebook on January 29, 2022..

### Mineral Sale

The online Fossil & Mineral sale will run from 10:00 a.m. to 8:00 p.m. EST on our Facebook page.

The sale will be held auction-style, and you must have a Facebook Account to place a bid.

NJ sales tax will be charged on all sales.

Payments will be taken online. Winning bidders will receive details and must complete payment by Monday, 1/31 @ 8:00 p.m. EST.

Items purchased must be picked up at the Museum during one of the below times.

Friday, February 4th, 1:00 p.m.-4:00 p.m.

Saturday, February 5th, 11:00 a.m.-2:00 p.m.

Check back for a link to the Facebook auction.

### Lecture Series

All lectures will be held on Zoom, as well as Live-Streamed to Facebook.

10:00 a.m.: Curating a Culture of Curiosity: Strategies for Managing a Natural History Collection in the Deep South, presented by Amy Moe Hoffman, Instructor of Geology at Mississippi State University and Curator at the Dunn-Seiler Museum.

11:30 a.m.: Nineteenth Century Geology and the Creation of America's First Geology Museum, presented by Dr. Lauren Adamo, Rutgers Geology Museum Director.

1:00 p.m.: Why Mary Anning Rocks, presented by Anya Pearson, Trustee of the Mary Anning Rocks Project.

2:30 p.m.: A Scientific and Architectural History of the Geology Museum, presented by Dr. Carla Gianni, Professor of Art History at Rutgers & Carol McCarty, Independent Researcher in the Rutgers History Department.

Check back for the lecture series Zoom link.

**Children's Activities** - see web site.

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**Open House and Mineral Sale**  
**Saturday, January 22, 2022**  
**Rising Sun, Maryland**

EFMLS First Vice-president and Friends of Mineralogy - Pennsylvania Chapter President Bill Stephens extends an invitation: "Treat yourself to some great specimens and gems and help me raise some funds for the upcoming Tucson trip [National Symposium of the Friends of Mineralogy - see the next article].... I'm planning an open house on Saturday, January 22, 2022 for anyone interested in mineral specimens and lapidary/cutting material. The open house will be held from 9:30 a.m. until 4:00 p.m. I will have some drinks and finger food available. Most of the items I'm selling will be spread out on tables in my basement so if you have issues going up and down steps you might consider whether you'd like to see something in particular and I'll post on Facebook if I have it. Parking on the street is OK. If it snows or rains or is otherwise unsafe to travel, we will reschedule for the following Saturday."

Specimens I have available for sale include but are not necessarily limited to: English fluorite from the Dianna Maria Mine, fluorite from the Denton Mine, "grape agate," amethyst crystal clusters, wavellite, "skeletal" quartz, wulfenite, native silver on gossan, muscovite crystal clusters, Petrified wood, French Creek material, and a host of individual specimens, various species from around the world and self-collected in the States and Mexico.

Lapidary material includes but is not limited to: blue opal petrified wood from Indonesia, block for slicing, finished stones cut by Jason Baskin, over 4 kilos available, takes a super polish; polished slabs of native copper filament infused agatized and opalized petrified wood from Indonesia; logs of green/tan opal petrified wood from Indonesia, smokey quartz crystals, polished slabs/slices of palm wood from Indonesia, Indonesian moss agate cabs (reds and greens, scenes), rose quartz for cutting star and other cabs, miscellaneous faceted and cabbed stones, imperial topaz, local chalcedony for cabbing (Penn-MD quarry - rare).

*For a more detailed list, contact Editor David Glick <xidg@verizon.net> or see the Facebook page Bill Stephens Gems and Minerals in the next few days.*

If you would like to attend, kindly RSVP to my email (bstephens@stephensenv.com) and I'll provide my address. I'm located in Rising Sun, Maryland, near the Cecil College off I-95. Very easy to find.

Also, I will be speaking at the annual National Symposium of the Friends of Mineralogy February 12, 2022 on the pyromorphite from Phoenixville. The symposium includes top mineralogists, geologists, collectors and dealers from all over the world. Visit the FM National website for more information on the symposium and speakers. I encourage you to register. It's free but you have to register on the website.

Cheers and I look forward to seeing you!

Bill Stephens PG, President  
 Stephens Environmental Consulting, Inc.

**Friends of Mineralogy**  
**2022 Tucson Mineral Symposium**  
 from the web site

<https://www.friendsofmineralogy.org/2022-tucson-mineral-symposium/>

*In conjunction with the Mineralogical Society of America and the Tucson Gem & Mineral Society, Friends of Mineralogy is pleased to announce the return of the annual Tucson Mineral Symposium for its 40th year.*

**Minerals of the Apatite Supergroup  
 and Mineral Fluorescence**

Saturday, February 12, 2022

Tucson Convention Center, Tucson, AZ

The Tucson Mineral Symposium will be held as a hybrid event, both in person at the Tucson Convention Center and online via Zoom. Attendance in either format is FREE. In person attendance does not require registration. To receive the link to attend the online portion, please register on the web site.

Donations to offset the cost of the symposium can be made on the web site.

A free PDF version of the abstract book is available for download on the web site. Printed copies of abstract books will be \$12. You can reserve and pay for your printed copy. Physical copies must be picked up at the in person event in Tucson; no copies will be mailed. Additional copies will be available at the in person event while supplies last.

**Speaker Program**

- Daniel E. Harlov – "Apatite and fluids: pseudomorphism, mineral inclusions, and mineral formation" (remote talk from Europe)
- John Rakovan – "The Sauberg Mine, Type locality of fluorapatite, and the recognition of apatite as a distinct mineral species"
- Madeline Murchland\* and John Rakovan – "Fluorescence spectroscopy of apatite"
- Evan Smith – "Decoding the colors and patterns of fluorescence in Diamond"
- Peter Megaw – "The apatite supergroup of minerals from Mexico"
- Markus Raschke – "The fluorescence of scheelite from Xuebaoding, Sichuan Province, China"
- Ray Grant – "Vanadinite in Arizona"
- Bill Stephens – "Pyromorphite from the world-famous Phoenixville District lead mines, Chester County, Pennsylvania"
- Thomas Loomis – "Apatite occurrences in the Black Hills, South Dakota"
- Nicholas Hebert – "Orange fluorescent minerals from Mogok: from the scapolite-feldspathoid bearing

marbles to hackmanite” (remote talk from Perth, Australia)

Glenn Waychunas\*, George Rossman, and Michael Gaft – “Electronic defects as activators of luminescence in minerals: overview and examples of novel fluorescence and tenebrescence”

\* denotes presenter

Downloadable Files: PDF copies of the 2022 Tucson Mineral Symposium abstract book, event announcement, and speaker schedule (subject to change – a final schedule will be updated by February 1, 2022) can be downloaded on the web site:

## UPCOMING EVENTS

Confirm details of events before attending.

**Jan. 29, 2022:** Virtual Open House, Rutgers Geology Museum. See page 6 and <https://geologymuseum.rutgers.edu/annual-open-house>

**Feb. 12, 2022:** Friends of Mineralogy Symposium, Tucson, AZ, and via Zoom. See page 7.

**Mar. 5-6, 2022:** 58<sup>th</sup> Annual Gem, Mineral and Fossil Show, by Delaware Mineralogical Society. Double Tree by Hilton Hotel, 4727 Concord Pike (Route 202), Wilmington, DE. Sat 10-5, Sun. 11-5. [www.DMSrocks.org](http://www.DMSrocks.org)

**Mar. 26-27, 2022:** Annual Show, by Che-Hanna Rock & Mineral Club. Wysox Volunteer Fire Co. Social Hall, 111 Lake Road, Wysox, PA. Sat 9-5, Sun. 10-4. <http://www.chehannarocks.com/>

**May 16-22, 2022:** EFMLS Wildacres Workshop Spring Session, North Carolina. See page 6.

## Geo-Sudoku Solution

T	A	P	N	S	G	E	I	Y
E	G	Y	P	T	I	A	N	S
S	I	N	Y	E	A	G	P	T
N	E	G	S	A	P	Y	T	I
Y	T	A	I	N	E	S	G	P
P	S	I	G	Y	T	N	E	A
I	Y	E	A	P	N	T	S	G
G	N	S	T	I	Y	P	A	E
A	P	T	E	G	S	I	Y	N

## NMS BOARD MEETING NOTICE

NMS members are invited to attend Board of Directors meetings, which are generally held at 7:00 p.m. about two weeks prior to the general monthly meeting, although we do not meet every month. The next date has not been set. Members who would like to attend should contact president David Glick to verify time and place; those who would like to have their discussion item placed on the agenda should contact him at least one week in advance of the meeting.

## INVITE A FRIEND TO JOIN THE SOCIETY

The Nittany Mineralogical Society prides itself on having among the finest line-up of speakers of any earth sciences club in the nation. Everyone is welcome at our meetings. If you'd like to be part of our Society, dues are \$20 (regular member), \$7 (student rate), \$15 (seniors), \$30 (family of two or more members, names listed). Those joining in March or later may request pro-rated dues. Your dues are used for programs and speakers, refreshments, educational activities, Bulletins, and mailing expenses. Please fill out a membership form (available at [www.nittanymineral.org](http://www.nittanymineral.org)), make checks payable to “Nittany Mineralogical Society, Inc.” and send them in as directed, or bring your dues to the next meeting.

**We want to welcome you!**

## CONTACT INFORMATION

mailing address:

Nittany Mineralogical Society, Inc.  
c/o S. Bingham, Treasurer  
145 Goddard Cir.  
Penna. Furnace PA 16865

## SOCIETY OFFICERS

David Glick (President) 814-810-2116 (h)  
e-mail: [xidg@verizon.net](mailto:xidg@verizon.net)

Dr. Bob Altamura (Vice-President) 814-234-5011 (h)  
e-mail: [raltamura@comcast.net](mailto:raltamura@comcast.net)

Dr. Barry Scheetz (Secretary) 814-360-8241 (cell)  
e-mail: [se6@psu.edu](mailto:se6@psu.edu)

Stuart Bingham (Treasurer)  
e-mail: [sebing145@comcast.net](mailto:sebing145@comcast.net)

## OTHER CONTACTS

Field Trips: Dale Kephart  
e-mail: [beckdale2@comcast.net](mailto:beckdale2@comcast.net)

Junior Rockhounds: Dr. Andrew Sicree  
814-867-6263 (h) e-mail: [aas132@psu.edu](mailto:aas132@psu.edu)

Membership Chair: David Glick (see above)  
Programs: Dr. Duff Gold 865-7261(o), 238-3377(h)  
e-mail: [gold@ems.psu.edu](mailto:gold@ems.psu.edu)

Door Prizes: Dr. Bob Altamura (see above)  
Facebook & Publicity: John Dziak: [jjd264@psu.edu](mailto:jjd264@psu.edu)

The Bulletin Editor will welcome your submissions of articles, photos, drawings, cartoons, etc., on minerals, fossils, collecting, lapidary, and club activity topics of interest to the members. Please contact:

David Glick E-mail: [xidg@verizon.net](mailto:xidg@verizon.net)  
425 Armagast Rd. phone: (814) 810-2116 (h)  
Bellefonte, PA 16823-9762

Newsletter submissions are appreciated by the first Wednesday of the month. Photographs or graphics are encouraged, but please do not embed them in word processor files; send them as separate graphics files (good to highest quality JPEG files, about 1050 pixels wide, are preferred). Please provide captions and name of photographer or artist.

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