



The Mineral Newsletter

Next meeting: March 6 Time: 7:30 p.m.

Dunn Loring Fire Station, 2148 Gallows Road, Dunn Loring, VA



Bustamite *with galena* **Broken Hill, New South Wales, Australia**

Source: Mindat. Photo: Rob Lavinsky.

Deadline for Submissions

March 15

Please make your submission by the 15th of the month!
Submissions received later might go into a later newsletter.

Volume 63, No. 2

March 2023

Explore our [website](#)!

March Meeting Program:

Spring Club Auction

Details on page 8

In this issue ...

Mineral of the month: **Bustamite** p. 2

President's collected thoughts p. 7

March Program: Club auction..... p. 8

News from the Rutherford Mine p. 9

Wildacres in spring p. 10

Upcoming events p. 11

Auction bid slips..... p. 12

Auction summary sheet..... p. 13



Mineral of the Month Bustamite

by Sue Marcus

For March, we'll learn about bustamite, our Mineral of the Month. I hope some of our Franklin aficionados will be interested because the Franklin Mine is the type locality for this mineral.

Mineral names often have stories behind them, and bustamite offers us something new—it is a reused name! The “mineral” originally called bustamite was later determined to be a mixture of rhodonite and johannsenite. E.S. Larsen, Jr., and E.V. Shannon described a new mineral from Franklin and dubbed it bustamite. The name likely comes from Miguel Bustamente y Septiém, a Mexican mineralogist and naturalist. The famous Ward's Natural Science Establishment provided the Smithsonian's National Museum of Natural History with the material described by Larsen and Shannon.

Bustamite and johannsenite are high- and low-temperature forms (polymorphs) of $\text{CaMnSi}_2\text{O}_6$. The change between the minerals occurs at 830 °C (1,530 °F), so a low-temperature formation of johannsenite can still be pretty hot. Bustamite is part of the wollastonite group. It forms triclinic crystals, like most members of that group. Larsen and Shannon believed that bustamite might be a species of rhodonite, though it was later determined to be closer to wollastonite. Bustamite and rhodonite frequently occur together, sometime as intergrown masses. This intergrown relationship is noted, perhaps with frustration, by mineralogists and crystallographers attempting to study them.

Bustamite forms during the metamorphism of manganese-rich rocks. As part of the metamorphic process, hydrothermal fluids leached the host rocks, then deposited the enriched fluids, which crystalized as new minerals.

Books have been written about the wealth of minerals found at the mines around Franklin, NJ. Bustamite occurs here with rhodonite, vesuvianite, garnet (andradite or spessartine), calcite, and johannsenite. Cleavages of bustamite are most common; subhedral crystals are rare, but several specimens are shown on the Mindat page for the Franklin Mine. The crystals, up to 8 centimeters (3 in) in size, show faces with somewhat rounded edges rather than sharp contacts.

Happy St. Patrick's Day!



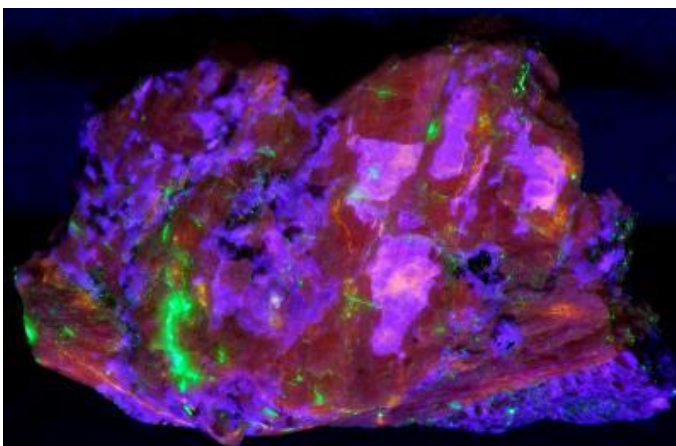
Northern Virginia Mineral Club members:

The March club meeting will be on **March 6, 7:30 p.m.**, at the Dunn Loring Fire Station, 2148 Gallows Road, Dunn Loring, VA. The fire station is next to Kilmer Middle School.

The program will be the Spring Club Auction. See details on page 8.



*Bustamite, Franklin Mine, Franklin, NJ.
Source: Mindat; photo: Rock Currier.*



Left: Bustamite (pink), hardystonite (gray to white), with minor willemite, franklinite (black), and clinohedrite from Franklin, NJ. **Right, under shortwave ultraviolet light:** The bustamite fluoresces cherry red, the hardystonite blue and lavender, the clinohedrite orange, and the willemite green.

Source: [Franklin-Ogdensburg Mineralogical Society](#); photos: Robert A. Boymistruk.

The attractive pink to salmon color can fade in daylight. Some bustamite photos on Mindat from this locality show red fluoresce under longwave ultraviolet radiation; there are rarer reports of red shortwave fluorescence. Bustamite was also found at [Sterling Hill](#), where it was uncommon.

Another probable U.S. locality for bustamite is [Jail Hill Road](#). All specimens shown on Mindat are massive, with bustamite intergrown with rhodonite and other minerals. The Mindat description of the locality implies that the bustamite could be rhodonite—or that both can occur there. Some studies found only rhodonite and some found bustamite. It seems likely, given the chemical and geological closeness of the two minerals, that both were found there.

In England, bustamite has been found at the Meldon Quarry in Devon and the [Treburland manganese deposits](#) in Cornwall. Although the Treburland deposits are mentioned more frequently than the Meldon Quarry, Mindat shows only specimens from Meldon. Meldon produced salmon-colored, tightly packed sprays of bustamite crystal blades with one specimen reaching 9 centimeters (3.5 in) in size. Massive bustamite was also recovered. The Treburland Manganese deposits are distinct from the nearby Treburland Mine, which was worked for tungsten and tin.

There are many reports of bustamite from Sweden, specially from the Kesebol Mine in Västra Götaland County and the Långban Mine and [Harstigen Mine](#) in Värmland County. At Långban, bustamite and rhodonite are intergrown, along with calcite, quartz, and



Bustamite, Långban Mine, Värmland County, Sweden.

Source: Mindat; photo: André Heyninck.

other minerals. All of the Swedish specimens are massive or crystals fully enclosed in matrix. If the material fluoresces, these would be a nice addition to fluorescent mineral collections.

When Larsen and Shannon described bustamite, they also studied samples from Schio in Vicenza Province, Italy, provided by the great collector, Colonel Washington Roebling. Roebling was noted for chasing new or rare minerals for his collection. Larsen and Shannon wrote that bustamite from this Italian locality was birefringent and formed polysynthetic twins. The twins are parallel crystals, with separate adjacent

crystals repeating like sandwich slices; plagioclase forms this type of twinning. Specimens are not abundant. The only two images shown on Mindat are salmon to brown, tan fibrous, or blades of cleaved bustamite. The images on Mindat came from [Campi-gliese](#) in Livorno (Tuscany).

Massive pink bustamite was found at the [N'Chwaning II Mine](#) and the Wessels Mine in South Africa's Kalahari manganese fields. Some of the bustamite from these localities has been polished. Crystals, though very rare, are reported from both mines.

Probably the world's finest bustamite crystals have come from the [Broken Hill Mine](#) in New South Wales, Australia. The crystals form in distinctive habits. One form is acicular, with white, pink, or golden hairlike crystals with hedenbergite or fluo-rapophyllite. More commonly, bustamite forms euhedral crystals. Some of these are matrix specimens, with the bright salmon to red bustamite crystals contrasting nicely with white calcite and black-silver galena. Single crystals up to 10.5 centimeters (4.1 in) in size have been recovered. Smaller crystals are sometimes transparent, in lovely pink to red tones. The best specimens were found in the 1960s-70s.

Bustamite is reported from [Japan](#)'s Iwate (Hijikuzu and Noda-Tamagawa Mines), Yamagata (Obori Mine), Tochigi (Kanoiri Mine), and Shiga (Mikumo Mine) prefectures. There is little information on any of these occurrences, though they are active or former mines. A [gemmy red crystal](#) over 1 centimeter (0.4 in) in size from Kanuma City is pictured on Mindat,



*Bustamite, Broken Hill, New South Wales, Australia.
Source: Mindat; photo: Rock Currier.*



Bustamite, North Mine, Broken Hill, New South Wales, Australia; Source: Mindat; photo: John Haupt.

with a note that it is in the Smithsonian's collections. Similar gemmy crystals are reported from the Iwate and Yamagata Prefectures.

Many localities appear once in the sources I use, though there are no confirming or descriptive information and no photos. For some places, Mindat lists bustamite among the minerals found, though with no images or additional information. Since bustamite occurs with rhodonite, it is likely that it will be found or collected at many sites, but some of the reports of bustamite might be misidentified rhodonite. Here is a list of the reported bustamite localities not described in this column: Algeria, Argentina, Austria, Canada, China, Croatia, France, Germany, Honduras, Iran, Mexico, Mongolia, New Zealand, Norway, Peru, Romania (Baita), Russia (Russian Federation?), Spain, Saudi Arabia, Slovakia, Tajikistan, and Turkey.

If a mineral can be faceted or polished into cabochons, lapidarists will make it happen. Cut and polished bustamite is uncommon. Its good cleavages make it difficult to cut, and it is seldom translucent.

The Gemdat website shows a pink translucent faceted stone; a much more transparent stone is shown on the International Gem Society site.

Bustamite could theoretically be used as manganese ore. However, it is not abundant enough and found in sufficient quantities to constitute economically minable deposits.

On February 22, I found a few specimens of bustamite for sale on the online mineral markets. The high-end dealers' websites showed attractive specimens marked "sold," with no prices. Etsy had nothing. eBay had one small crude bustamite crystal with galena from Broken Hill; offered for \$18, it was 2.7 centimeters (1 in) long (about the same size as the quarter shown for scale). A 6.4-centimeter (2.5-in) specimen from Broken Hill with attractive reddish bustamite, including one crude crystal with contrasting dark sphalerite, was listed for \$425. A specimen of massive fluorescent bustamite from Franklin, about 13.5 centimeters (5.3 in) long, was shown for about \$30. ↗

Technical Details

Chemical formula $\text{CaMnSi}_2\text{O}_6$ or $(\text{Ca},\text{Mn})\text{SiO}_3$
or $\text{CaMn}^{2+}(\text{Si}_2\text{O}_6)$

Crystal form Triclinic

Hardness 5.5-6

Specific gravity 3.0-3.4

Color Pink, white, buff, yellow-brown; color can lighten to white with exposure to light or darken to black or brown with exposure to air

Streak White

Cleavage 2 perfect, 1 good, 1 distinct

Fracture Conchoidal to uneven

Luster Vitreous/pearly on cleavages

Acknowledgments

Editor Hutch Brown showed his skills by determining that the original (later discredited) mineral named bustamite was probably named to honor the Mexican mineralogist and naturalist Miguel Bustamante y Sepi  m, not the Mexican politician and military leader Anastasio Bustamante y Oseguera. I also appreciate Herwig Pelckmans' willingness to confirm the correct



*Bustamite, Broken Hill, New South Wales, Australia;
Source: Mindat; photo: Rob Lavinsky.*

original description of bustamite, which is incorrectly cited by an authoritative source (IMA).

Sources

Arem, J.E. N.d. (no date). [Bustamite value, price, and jewelry information](#). International Gem Society.
Dakota Matrix Minerals. N.d. [Bustamite](#).



Bustamite, Franklin Mine, Franklin, NJ. Source: Mindat; photo: Rob Lavinsky.

Franklin-Ogdensburg Mineralogical Society. N.d.

[Bustamite](#).

Gemdat. N.d. [Bustamite](#).

Larsen, E.S.; Shannon, E.V. 1922. [Bustamite from Franklin Furnace, New Jersey](#). American Mineralogist 7(6): 95-100.

http://www.minsocam.org/ammin/AM7/AM7_95.pdf

Mindat. N.d. [Best of bustamite](#).

Mindat. N.d. [Bustamite](#).

Minerals.net. N.d. [The mineral bustamite](#).

National Gem Lab. N.d. [Bustamite](#).

Nightsea. 2018. [Mineral fluorescence under blue light](#).

Peacor, D.R.; Prewitt, C.T. 1963. [Comparison of the crystal structures of bustamite and wollastonite](#). American Mineralogist 48(5-6): 588-596.

Schaller, W.T. 1938. [Johannsenite, a new manganese pyroxene](#). American Mineralogist 23: 575-582.

Sundus, N. 1931. [On the triclinic manganiferous pyroxenes](#). Journal of the Mineralogical Society of America 16: 411-429, 488-518.

http://www.minsocam.org/ammin/AM16/AM16_488.pdf

Wikipedia. N.d. [Bustamite](#).

Four worms were placed in four separate test tubes:

1st in beer
2nd in wine
3rd in whiskey
4th in mineral water

The next day, the teacher shows the results:

The 1st worm in beer, dead.
The 2nd in wine, dead.
The 3rd in whiskey, dead.
The 4th in mineral water, alive and healthy.

The teacher asks the class:

-What do we learn from this experience?

And a child responds:

-Whoever drinks beer, wine and whiskey, does not have worms.



President's Collected Thoughts

by Jason Zeibel

Welcome to a new and exciting year with the club! And with the New Year come some new beginnings.

First and foremost is a new slate of officers for our club. I will be taking on the job of president, with Craig Moore as our vice president. Roger Haskins will continue doing his wonderful job as our treasurer. However, we are still looking for a secretary, so if you regularly attend our meetings, please consider filling that role (keeping meeting minutes) and reach out to me to volunteer. We are very lucky to have awesome volunteers for webmaster, show chair, newsletter editor, and a few other positions as well.

Here is a little information about me! I grew up outside of Charlotte, NC, where I was a member of the Charlotte Gem and Mineral Club. I went on many collecting trips in western North Carolina and South Carolina to places such as Spruce Pine (for emeralds), Mars Hill (for garnets), Franklin (for tourmaline and emeralds), and more. My mother had taken some geology in college, and it was a fun way to do stuff together.

Now I have two lovely daughters (Celia, 13, and Lyra, 10) and a very supportive wife, Audra. My daughter Celia is a regular at club meetings and wants to be a geologist when she grows up—though she is actually thinking about astrogeology because she loves meteorites and astronomy as well. We have been collecting fluorescent minerals for the last 5 or 6 years and have a small collection of them now. For those of you who were at the February Zoom meeting, you got to hear Celia and me talk about our adventures over Christmas 2022 going fossicking for black opals in Lightning Ridge, New South Wales! It was a grand adventure, and I hope you enjoyed hearing about it as much as we enjoyed talking about it.

I see 2023 as a transition year for our club. We are trying to move out of Zoom-only into more in-person meetings. However, we have really enjoyed the benefits of Zoom in that we now have members who live out of the local area, and we have had some great presentations from folks who are not always nearby.

So I envision that we will have some hybrid meetings as well as some in-person meetings this year.

When we do meet in person, it will be at the Dunn Loring Volunteer Fire Department at 2148 Gallows Road, Dunn Loring, VA. Meetings will now be on the *first* (rather than fourth) Monday of the month because the fire station could make that Monday available. However, we will make exceptions for holidays, such as moving September's meeting date to the second Monday to avoid a conflict with Labor Day.

Having said all that, our next meeting will be in person on Monday, March 6, at 7:30 p.m. We will have the return of our Spring Club Auction! For those new folks out there, our club has traditionally held auctions in March and September, with part of the proceeds from the sales going to the club treasury. So bring stuff that you want to sell and some money to buy stuff!

In addition to items offered by club members, Sue Marcus has been graciously curating a quantity of minerals donated to the club, which will be offered for sale. These items are pure profit for the club when they sell, so they are especially important. The auction will start promptly at 7:30 p.m. If you want to bring a not-too-messy dessert to share, please do—but you don't have to.

The April meeting will likely be a return to Zoom for a presentation since that is spring break week and near Easter. Then we will plan to return to in-person meetings again in May and June.

I am excited to have the opportunity to be your club president, and I thank you in advance for the help and support that I know you will provide as I navigate my way through this adventure.

Jason



Showpieces from a special collection offered for sale at the Spring Club Auction in 2018. Photo: Hutch Brown.

Club Member Rocks and Minerals Auction Coming Up! March 6 Program



Our March club meeting will feature our Spring Club Auction! Proceeds from the auction go into the Fred Schaefermeyer Scholarship Fund, which supports students in the field of geology.

The meeting will start promptly at 7:30 p.m. We will quickly move through the business part of the meeting so we can get to the fun!

Sellers, come early to help set up the room and your items. Each auction item should be described on an individual bid slip (see page 12 for the forms—just print out as many pages as you need). Information on the bid slip should include:

- item number (your initials or other unique code followed by a sequence number);
- description;
- from (locality); and
- starting bid amount (the lowest bid you will accept for sale—if not stated, the minimum bid is \$2).

Also, use the summary sheet on page 13 to list all of your items for sale so that the club treasurer can record the final sales price and give you your money after the auction.

Bring guests or invite nonmembers who might be interested in rocks and minerals! Although only current club members are allowed to sell, the meeting and auction are open to all.

Please consider volunteering. The auctioneers, accountants, and runners are all volunteers—so help us out here, folks!

Bring small bills, bid early and often, and help us move on to the next item. We need to be out of our meeting room by about 10 p.m.

**** Note Current Club Auction Rules ****

- Any member may offer up to 20 specimens or up to 4 flats for auction.
- Each flat is one auctionable item.



Malachite acquired by a lucky buyer at a past NVMC club member auction. Photo: Sheryl Sims.

- The club gets 15 percent of the purchase price; the remainder goes to the seller
- Anyone may donate items to the auction to fully benefit the club (no money goes back to the donor).
- The minimum bid is \$2 on any item. The minimum increase is also \$2. Bids higher than \$20 increase by \$5.
- We start with a silent auction to assess interest in each item for sale. So look carefully and start bidding. Items with multiple bids during the silent auction will be brought sooner to the actual (vocal) auction.

Winning bidders must pay for the item promptly with cash or check. ➤

GEOLOGIST AT LUNCH



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News About the Rutherford Mine

by Sue Marcus

Editor's note: The piece is based on recent emails from Scott Duresky, the leading expert on minerals from the legendary Rutherford Mine in southern Virginia.

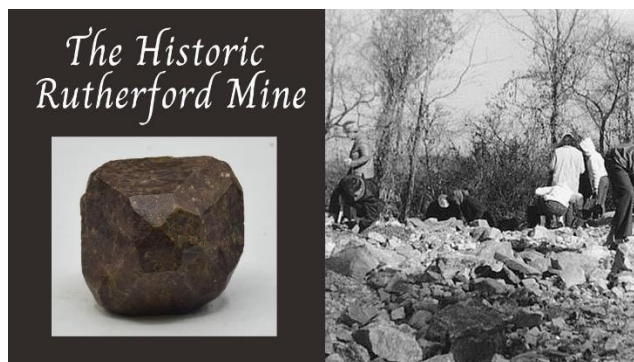
A 200- to 400-pound hoard of Rutherford Mine materials from the 1950s-60s has been found!

Scott Duresky reports that a large collection of relatively old self-collected specimens from the Rutherford Mine came to light when the family of the collector contacted him. Scott has studied the Rutherford Mine for decades (and we've been honored to have him present his results to our club). Initial inspection has revealed:

- A significant quantity of cleavelandite, one with microlites embedded in it; lots of microlite crystals (some very nice and relatively large); several nice columbite/tantalite crystals up to 2 inches in length; quite a few small and somewhat larger spessartines; a number of monazites; and assorted other rare-earth minerals, some of which have nice crystallization.
- By far the largest and nicest manganotantalite crystal Scott has seen.
- By far the largest and most perfect septic quartz crystal he has seen; Scott notes that the Rutherford source for this needs to be confirmed, though based on his knowledge, it is likely from there.

The best specimens, along with many others, will be donated to the Virginia Division of Energy, Department of Geological and Mineral Resources, where they will be fully accessible in their database for future collectors and researchers. The collection might produce new discoveries as a result of the continuing research and ongoing energy dispersive spectroscopy analyses.

Consider where your own collection might go and make plans to ensure that your treasures will be enjoyed by future generations. As part of your planning process, make sure that the recipients of your specimens want them and that you understand and accept any conditions the recipients might have for accepting your specimens. For example, many museums will not agree to receiving donations and then keeping them in perpetuity. Many of us know that a new



locality or even a new pocket being discovered can lead to discovery of a new “best of the species.”

GeoWord of the Day

(from the American Geoscience Institute)

dolomite

A carbonate sedimentary rock of which more than 50 percent consists of the mineral dolomite or a variety of limestone or marble rich in magnesium carbonate; specif. a carbonate sedimentary rock containing more than 90 percent dolomite and less than 10 percent calcite, or one having a Ca/Mg ratio in the range of 1.5–1.7, or one having an approximate MgO equivalent of 19.5–21.6 percent or magnesium–carbonate equivalent of 41.0–45.4 percent. Dolomite occurs with well-developed crystalline habits as well as anhedrally, is clearly associated and commonly interbedded with limestone, and usually represents a postdepositional replacement of limestone. Pure dolomite (unless finely pulverized) will effervesce very slowly in cold hydrochloric acid. Named after Déodat Guy de Dolomieu (1750–1801), French geologist, and first applied to certain carbonate rocks of the Tyrolean Alps.

(from the [Glossary of Geology, 5th edition, revised](#))





Wildacres in Spring

Wildacres is a fantastic retreat located on Pompeys Knob just off the Blue Ridge Parkway about an hour north of Asheville, NC. Signing up for the May 15–21 session will give you the opportunity to take one or two classes; hear excellent talks from the guest

speaker, Helen Serras-Herman, an acclaimed gem artist; and participate in a variety of other activities.

You can register on the [EFMLS Wildacres website](#). The guest speaker and the courses listed below are firmly lined up for May. ☺

Coming to Wildacres in May 2023 ...

Chainmaille I (*Jim Hird*): Create jewelry using unsoldered links. Learn basic patterns using inexpensive copper rings as well as anodized aluminum and colored rubber. Learn why any old commercial jump rings do not always work. No experience needed. 2-day class, semester 1.

Chainmaille II (*Jim Hird*): Build on your abilities learned in the first class to create more advanced patterns and work in more colors as well as gold-filled, argentum, and mixed-material rings. Skills learned in first semester required. 2-day class, semester 2.

Faceting (*Bernie Emery*): Learn how to select rough for cutting, how to evaluate it for the size and dimensions for the gem, and how to use a faceting machine to cut, place, and polish facets to produce a standard round brilliant gemstone. No experience needed. 4-day class.

Gem tree art (*Linda Boronczyk*): Have fun shaping and twisting wire with pliers to design a basic tree of life on a cabochon to create a pendant. The second project will be creating a whimsical weeping willow tree to display on a beautiful agate slice. The tree will have seed beads to add sparkle. No experience needed. 4-day class.

Intarsia (*Chuck Bruce*): Learn to make intricate scenic and/or geometric patterns from small stone pieces of colorful/interesting matrix cut to precision and fitted together, leaving no gaps. Cut and shape square or linear stones to create a composite piece for making into a cabochon. Cabbing experience required. 2-day class, both semesters.

Mineral ID (*Mike Wise*): Learn basic skills to identify various rock-forming and “exotic” minerals using “non-destructive” and “semidestructive” tests for beginners. No experience needed. 4-day class.

Silversmithing I (*Richard Meszler*): Learn to work silver sheet & wire to fabricate jewelry. You get a kit with metals/supplies & a step-by-step description of each project. No experience needed. 2-day class, semester 1.

Silversmithing II (*Richard Meszler*): Learn to make a bezel setting & bail for setting a cabochon to make a pendant. You get a kit with all you need. Basic silversmithing experience, including soldering. 2-day class, semester 2.

Soapstone Carving 101 (*Ken Valko*): Learn the material/tools/methods used to complete a carving. Produce a simple piece; progress toward a more advanced sculpture. No experience needed. 2-day class, semester 1.

Soapstone Carving 102 (*Ken Valko*): Advance to a more advanced sculpture or hone your artistic skills. Skills learned in first semester required. 2-day class, semester 2.

Wirewrapping (*Jacolyn Campbell*): Use pliers/gold-filled or sterling silver wire/assorted beads or gemstones/basic wirecraft techniques to create rings, bracelets, pendants, and earrings. All tools/materials provided.

Session I (beginner): Make an adjustable ring, 2 bracelets, a pendant, & 2 pairs of earrings. 2-day class, semester 1.

Session II (interm): Make a fitted ring, 2 pairs of earrings, a cabochon pendant, & a bracelet. 2-day class, smstr 2.

March 2023—Upcoming Events in Our Area/Region (see details below)

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1 MSDC mtg	2	3	4 Show, Wil- mington, DE
5 Show, Wil- mington, DE	6 NVMC mtg	7	8	9	10 Show, Rich- boro, PA	11 Show, Rich- boro, PA
12 Daylight savings begins	13 GLMSMC mtg	14	15	16	17 St. Patrick's Day	18 Show, Mont- gomery Co., MD
19 Show, Mont- gomery Co., MD	20 Spring begins	21	22 MNCA mtg	23	24 Show, Hick- ory, NC	25 Shows: NC, PA
26 Shows: NC, PA	27	28	29	30	31	

Event Details

1: Washington, DC—Mineralogical Society of the District of Columbia; info: <http://www.mineralogicalsocietyofdc.org/>.

4-5: Wilmington, DE—Annual show; Delaware Mineralogical Society; Sat 10-5, Sun 11-5; DoubleTree, 4727 Concord Pike (Rt 202); seniors (60+) \$5, adults (18-59) \$6, Juniors (12-17) \$3; info: <https://www.facebook.com/Delaware-Mineralogical-Society-Annual-Gem-Mineral-and-Fossil-Show-109057331950888>.

6: Arlington, VA—Northern Virginia Mineral Club; info: <https://www.novamineralclub.org/>.

10-11: Richboro, PA—Annual show; Leidy Microscopic Society; Fri 12-6, Sat 9-6; Advent Lutheran Church, 45 Worthington Mill Rd; visitors \$5 Fri, \$10 Sat (includes lunch); info: leidymicroscopical.com.

13: Gaithersburg, MD—Gem, Lapidary, and Mineral Society of Montgomery County, MD; info: <https://glmsmc.com/index.shtml>.

18-19: Gaithersburg, MD—Annual show; Gem, Lapidary, and Mineral Society of Montgomery County, MD; Sat 10-6, Sun 11-5; Montgomery County Fairgrounds, Bldg 6, 16 Chestnut St; \$6

adults, kids 11 and under free; info: [GLMSMC - Gem, Mineral and Fossil Show](http://glmsmc.com).

22: Arlington, VA—Micromineralogists of the National Capital Area; info: <http://www.dcmicrominerals.org/>.

24-26: Hickory, NC—Annual show; Catawba Valley Gem & Mineral Club, Inc; Fri 10-6, Sat 10-6, Sun 10-5; Hickory Metro Convention Center, 1960 13th Ave. Drive, SE; admission \$6, kids 12 and under free; info: Dean Russell, 828-303-1448, cvgmcsec-retary@aol.com, website cvgmc.com.

25-26: Plymouth Meeting, PA—Annual show; Philadelphia Mineralogical Society and The Delaware Valley Paleontological Society; Sat 10-5, Sun 10-4; LU Temple, 5140 Butler Pike; \$7 adults, \$2 kids 12 and under; info: dklieger@verizon.net, philly-rocks.org.

25-26: Wysox, PA—Annual show; Che-Hanna Rock & Mineral Club, Inc; Sat 9-5, Sun 10-4; \$3 adults, \$1 students, kids under 8 free; Wysox Vol. Fire Hall, 111 Lake Road, PO Box 224; info: Bob McGuire, (570) 928-9238; Email: uvbob1942@gmail.com; Website: www.chehannarocks.com

AUCTION BID SLIP

ITEM # _____

DESCRIPTION _____

FROM _____

Starting bid amount: _____

Bidders: You need to bid on this item if you want it to be auctioned! Place bid below.

NAME/BID

AUCTION BID SLIP

ITEM # _____

DESCRIPTION _____

FROM _____

Starting bid amount: _____

Bidders: You need to bid on this item if you want it to be auctioned! Place bid below.

NAME/BID

AUCTION BID SLIP

ITEM # _____

DESCRIPTION _____

FROM _____

Starting bid amount: _____

Bidders: You need to bid on this item if you want it to be auctioned! Place bid below.

NAME/BID

AUCTION BID SLIP

ITEM # _____

DESCRIPTION _____

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Bidders: You need to bid on this item if you want it to be auctioned! Place bid below.

NAME/BID

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ITEM # _____

DESCRIPTION _____

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Starting bid amount: _____

Bidders: You need to bid on this item if you want it to be auctioned! Place bid below.

NAME/BID

AUCTION BID SLIP

ITEM # _____

DESCRIPTION _____

FROM _____

Starting bid amount: _____

Bidders: You need to bid on this item if you want it to be auctioned! Place bid below.

NAME/BID

SUMMARY SHEET FOR AUCTION ITEMS SUBMITTED BY _____

Initials	Item #	Description	Minimum bid	Final sale price
	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			
	10			
	11			
	12			
	13			
	14			
	15			
	16			
	17			
	18			
	19			
	20			

The Northern Virginia Mineral Club

Visitors are always welcome at our club
meetings!

PLEASE VISIT OUR WEBSITE AT:

<http://www.novamineralclub>

Please send your newsletter articles to:

Hutch Brown, editor

4814 3rd Street North

Arlington, VA 22203

hutchbrown41@gmail.com

RENEW YOUR MEMBERSHIP!

SEND YOUR DUES TO:

Roger Haskins, Treasurer, NVMC

4411 Marsala Glen Way, Fairfax, VA 22033-3136

OR

Bring your dues to the next meeting.

Dues: Due by January 1 of each year;
\$20 individual, \$25 family, \$6 junior (under 16,
sponsored by an adult member).

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2023 Club Officers

President: Jason Zeibel

president@novamineral.club

Vice President: Craig Moore

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Secretary: Vacant

Treasurer: Roger Haskins

treasurer@novamineral.club

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Editor: Hutch Brown

editor@novamineral.club

Field Trip Chair: Vacant

Greeter/Door Prizes: Vacant

Historian: Kathy Hrechka

historian@novamineral.club

Show Chair: Tom Taaffe

show@novamineral.club

Tech Support: Tom Burke

tech@novamineral.club

Webmaster: Casper Voogt

webmaster@novamineral.club

Club purpose: To encourage interest in and learning about geology, mineralogy, lapidary arts, and related sciences. The club is a member of the Eastern Federation of Mineralogical and Lapidary Societies (EFMLS—at <http://www.amfed.org/efmls>) and the American Federation of Mineralogical Societies (AFMS—at <http://www.amfed.org>).

Meetings: At 7:30 p.m. on the first Monday of each month (except January and September).* (No meeting in July or August.)

**Changes are announced in the newsletter; we follow the snow schedule of Arlington County schools.*

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