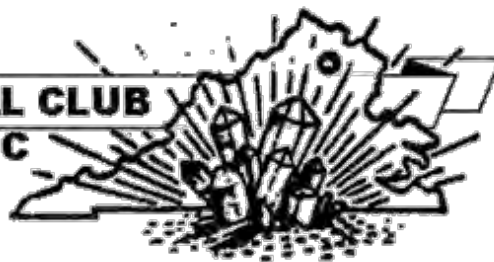




**THE  
NORTHERN  
VIRGINIA**

**MINERAL CLUB  
INC**

*Crystals are the flowers of the Mineral Kingdom*



# **The Mineral Newsletter**

**Meeting: November 26 Time: 7:30-10 p.m.**

**Long Branch Nature Center, 625 S. Carlin Springs Rd. Arlington, VA 22204**

**Program: Risks and Rewards of  
Uranium Mining in Virginia  
by Charlie Grymes**

By Barry Remer, Vice President

The first part of our meeting will be a presentation by Charlie Grymes. He is known for his understanding about the presence of Uranium in Virginia. Mr. Grymes is known for his insights into Virginia and the question as to whether or not to allow mining for Uranium in our state. This topic has engendered much interest and concern since there was discovery of the element in southwestern section. The question was being debated in the State Legislature. Governor McDonnell was in favor of allowing it at one point. Mr. Grymes will bring us up to date on the pros and cons of allowing mining here. Please come and hear this timely and interesting presentation.

The second part of our meeting will be a discussion about our show. Please attend and bring your recollections of what you enjoyed about the show and any insights you want to pass on to Tom and Jim.

**Volume 53 No. 11**

**November 2012**

Also find information on our Club website:

**<http://www.novamineralclub.org/>**

Virginia has a very large uranium deposit worth as much as \$10 billion. Other uranium deposits are concentrated east of the Blue Ridge, including in Fauquier County. The General Assembly has put a moratorium on uranium mining in the Commonwealth, though that may be lifted. Uranium development has implications on water resources over a wide area. All energy sources have societal and environmental consequences. Join us for an informative presentation by Charlie Grymes on the geology and issues surrounding the uranium deposit and its potential development.



## **Charlie Grymes Biography**

Charlie Grymes is the Chair of the Prince William Conservation Alliance ([www.pwconserve.org](http://www.pwconserve.org)), which focuses on watershed protection, conservation of natural areas, and smart growth in a rapidly-suburbanizing county. He teaches Virginia geography classes at George Mason University and is the author of the VirginiaPlaces website ([www.virginiaplaces.org](http://www.virginiaplaces.org)). He spent over 30 years with the Department of the Interior, working as park ranger, scenic easement administrator, budget analyst, information technology manager, manager of Internet-based outreach, and project leader for an electronic government project. As a 10th generation Virginian (Leesylvania State Park is an old family plantation), he often wonders why those earlier generations did not buy land when it was cheap and hold on to it, providing him a large inheritance so he could have lived a life of luxury...

**Please let me know if you'd like to join us  
for dinner before the Monday Meeting.**

**-Sue Marcus**

**[r1haskins@verizon.net](mailto:r1haskins@verizon.net)**

**5:45pm**

**Duangrat's Thai Restaurant**

**<http://duangrats.com/>**

Duangrat's

5878 Leesburg Pike

Falls Church, VA 22041

Telephone: (703) 820-5775

# Northern Virginia Mineral Club

## President's Collected Thoughts:

By Sue Marcus, President

November is the high point of the year for the Northern Virginia Mineral Club (NVMC).

OUR SHOW is November 17 and 18 at George Mason University. This is where many of us first learned about the NVMC and learned that we weren't the only ones who are crazy about minerals, fossils, or jewelry. Once again, we have the opportunity to look, learn, and buy earth science-related gifts for others or ourselves. We also have the opportunity to serve ourselves (and the club) by assisting with the running of the show. If you have an hour or more to help out, we need you to volunteer. Sign up through Volunteer Spot, on the right side our of Home Page (<http://www.novamineralclub.org/>) or call Jim Kostka at 703-779-2164.



Our Club also urgently needs people to lead us. If you are willing to serve as an officer, please contact Wayne Sukow at 703-280-8108. You may nominate yourself or anyone else who you know is willing to serve. Elections will be held at our December meeting. Without officers our club will founder. We all want to look forward to more auctions, informative programs, field trips, and of course, our holiday party. I look forward to seeing you at the show!



21st Annual  
**GEM, MINERAL  
AND FOSSIL SHOW**

### Dear Club Members

Thank you for attending the annual GMU Show. For all Club Members attending, here are a few things you can help with:

- 1) Keep an eye on the Kid's Table – when the Kid's Table gets busy, please go help. Beforehand maybe orient yourself to the activities, quizzes, answer sheets – and what we are trying to teach.
- 2) Help greet guests as they arrive. If they look confused, orient them to the show.
- 3) Tell families about the Kid's Mine - left hand side of the stage.
- 4) Keep an eye out for the "Little One", to make sure they do not 'touch' too much, and to make sure they don't accidentally pull items off the Vendor's tables.
- 5) Direct "Little One" that like to touch too much - to the right side of the stage to the 'Touch Rocks' display (thank you Joe M for use of your touch rocks).
- 6) Usher Scouts to the right hand side of the stage – to the 'Scout Corner'.
- 7) Act as security, keeping your eyes open, especially when a vendor is getting swamped. Watch for 'Little Ones' with sticky fingers. Watch for shoplifters.
- 8) Make friends with every Vendor. If they need a bathroom or snack break, offer to cover their booth, or go get an item for them.
- 9) If a Vendor looks swamped – he might need our help. You should politely offer to help the vendor, but do ask before you step inside the vendor space behind the tables.
- 10) Keep an eye on the taped-down electrical cords, to make sure they don't become a trip hazard.

**If you see a problem or have a question, please contact Jim Kostka or Tom Taaffe**  
**If you wish to help even more, please contact Jim K (202) 207-5437**

**Again, Thank You - without your help this show would not be possible.**

### OUR MISSION:

**The Northern Virginia Mineral Club**  
promotes, educates and encourages interest in  
geology, mineralogy, lapidary arts and related  
sciences.



21st Annual  
**GEM, MINERAL  
AND FOSSIL SHOW**

Presented by the Northern Virginia Club, Inc.

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

Sponsored by the Dept. of Atmospheric, Oceanic and Earth Sciences at GMU

Date: November 17 & 18, 2012

Place: Student Union II Building (The Hub)  
George Mason University Campus  
Braddock Rd. & Route 123, Fairfax, VA

Hours: Saturday 10am-6pm, Sunday 10am-4pm

Admission: Adults: \$5, Seniors & Teens (13-17): \$3  
Children 12 & under, Scouts in uniform,  
and GMU Students w/valid ID are FREE.

**\$1 OFF**  
1 Adult admission  
with this card

Demonstrations, Exhibits, and Door Prizes. Mini-mines for  
children to dig in and get free fossils and minerals.

Over 20 Dealers with Fossils, Minerals, Crystals and Gems for sale.

Use Parking lot A, enter Lot A from Nottaway River Lane.  
Look for our Courtesy Shuttle to Mineral Show



# Northern Virginia Mineral Club

## Fossil Hunt Calvert County, Maryland

By Patricia Flavin

The NVMC June 19, 2012, Cove Point Lighthouse & Beach Fossil Trip was a great time for the 32 participants. We had club members of all ages ready to hunt down that illusive shark tooth. The hunt was conducted on the Western Shore of the Chesapeake Bay, near Solomon's Island. We were granted special permission from the Calvert Marine Museum to hunt for fossils along this, otherwise, private beach. This reservation was arranged back in February.

The significance of these fossils is that they are found along the Calvert Cliff Formation, a coastline region of Calvert County, Maryland. This part of the Western Shore of Chesapeake Bay is known for their marine clay cliffs that were once part of an ancient sea during the Miocene Epoch, dates back to 8-22 million years ago. This area is well documented for the rich deposit of fossils and Indian artifacts, which can include: Sperm Whale & shark teeth, coral, shells, bones, spear and arrowheads. Sea glass and old bottles can also be found. As the cliffs erode the fossils are released and fall on to the shoreline. These cliffs were visible at a distance from Cove Point Beach.

The historic Cove Point Lighthouse and Coast Guard Station share this beach, along with a small collection of private beach houses. Weather temperature was mild and cloudy as we made our way along the shoreline. The surf was a bit rough, which caused the waves to crash on shore and scour the beach. Calmer seas and good visibility are always preferred. The hunter needs time to view the shoreline and quickly retrieve specimens.

We only had a short two hours to collect and identify: shells, sea glass, fossils and photos. I think everyone walked away with an education on how to identify a shark tooth in the sand, and the distinction between a shell fragment and fossils. Next, many of us drove a short distance to Flag Pond's Nature Center and Beach and continued our fossil search.

I was very pleased to see Ted Carver and his family join us on both beaches. Ted is our club's Field Trip Coordinator. The Marlineaux family with children Emily and Jake, joined us on a further search for sharks teeth. Jake rescued a Horseshoe Crab at Flag Pond's, that was pinned under water with several branches. The enclosed photo shows Emily holding the Horseshoe Crab that was released back into the bay. I think that was the highlight of their day.



Ted Carver pointing to rescued Horseshoe Crab that Jake Marlineaux, right, rescued at Flag Pond's Beach. Emily Marlineaux is holding the Horseshoe Crab with her Dad looking on from behind.



Mako Shark teeth, found in the sand of Cove Point Beach

Northern Virginia Mineral Club newsletter article & photo credits, Patricia Flavin



NVMC Group photo,  
Cove Point Lighthouse Beach, MD

# Northern Virginia Mineral Club

## Previous Meeting Minutes: October 22, 2012

By Kathy Hrechka, Secretary

President Sue Marcus opened the meeting at 7:45 p.m. Past president, Wayne Sukow was recognized. New member Will was welcomed. There were no guests in attendance. Wayne Sukow, promoted the upcoming club officer elections.



He announced that the positions for vice president, treasurer, and secretary are open. Tom Taaffe and Jim Kostka will continue as Show Co-Chairs. Sukow encouraged club members to "step forward" to be an officer.

### Earth Science in the News:

Gerry Cox entertained discussion about the geologists in Italy who were found guilty of manslaughter for not warning citizens of a 6.3 magnitude earthquake. She also spoke about Red Cross now having an ap for earthquakes.

Dave MacLean shared information about the North Arctic ice field measuring 3.5 meters today compared with 6 meters in 1979. He also talked about Ohio containing billions of barrels of oil.

Barry Remer includes information about the western North Dakota oil boom.

Mike Kaas promoted The Heritage Guide book of Franklin - Ogdensburg mining.

### Club Show Update:

Jim Kostka said, "This is your Show". He invited members to sign up on "Volunteer Spot". He asked members to clean out their garages and basements for minerals to donate to the Kids Table, or the silent auction. Tom Taaffe asked for colorful minerals donations for door prizes. Help is needed at the Kids Table, Scout Corner, table handouts, and the fluorescent booth. He reminded members to wear their name badges.

Break for Refreshments 8:10 p.m.

Meeting continued: Sue Marcus proposed to the club to give Julia Nord, GMU Geology Department \$1,000. to buy mineral specimens at our 2012 show. Sue explained how GMU is co-sponsoring our show, therefore providing a reduced rental rate. A motion was made and seconded. Marcus also proposed that our club treasury donate \$500 to the Smithsonian in gratitude of providing speakers for our club. Dave

MacLean made motion, but a decision was made to publish it in the newsletter for further consideration. Discussion occurred about awarding \$400 to a delegate for next year's EFMLS meeting. Wayne Sukow made a motion to support \$400 for a federation delegate. Again, membership agreed to discuss it at the next meeting.

### Program: Club Member Show & Tell from Summer Collecting 10/22/12

\* Sue Marcus - Galena, self collected from Ireland. Colorado School of Mining posters "Mineral products in our home" from the Denver Show Sept. 2012

\* Dave Hennessey - Garnet, Santa Barbara, Honduras  
\* Wayne Sukow - Copper replacement agate from Keweenaw Peninsula, Michigan, flash drive containing mineral programs given at the AFMS Mineral Show in Minnetonka, Minnesota. Wayne produced an agate calendar for a successful profit. He also spent a week in San Jose, California.

\*Bill Oakley - Pegmatite granite, Crazy Horse Monument, South Dakota. He traveled to British Columbia, Moab, Utah, and Mongolia.

\*Dave MacLean - Quartz & Hematite, White Cloud Mine, Colorado

\*George Reimherr - Pyrite crystals - (Northern most part of Canada) Inuvik, NW Territories, Canada.

\*Alec Brenner - Insurus hastalis (Mako) fossil shark tooth, self collected from the Scientists' Cliffs, Calvert Co., Maryland. Summer internship at the Paleobiology Dept., Smithsonian, Also worked research for NASA on Exoplanets and Tidal Heating, Paleoclimatology, and Micropaleobiology.

\*Talaya Ridgley - Box of Minerals. First self collected mineral turns out to be fluorite.

\*Gerry Cox - Grand Collection of Self Faceted Patuxent Agates, which is the Maryland State Stone (fossil bone marrow dissolved) stone.

\*Kathy Hrechka - Fashioned her blue NVMC Federation geology vest, dating back to 1985. Self collected Petoskey Stone, Petoskey, Michigan. Displayed professional Cub Scout Geology posters designed & donated by Jim Kostka for Geology badge instruction.

\*Jim Kostka - White jade, serpentine cabachon, cocoxenite, amethyst.

Door Prizes:

1. Dave MacLean
2. Rick Reiber
3. Kathy Hrechka

Announcements: Dave MacLean invited members to the Micro meeting Oct. 24 at the nature center.

Mike Kaas invited members the MSDC meeting Nov. 7 with speaker, Johnny Johnson.



# Northern Virginia Mineral Club



**Eagle Scout Jim Kostka & Kathy Hrechka**  
**Teach Geology to Cub Scouts**  
**Colonial District, National Capital Area**  
**Boy Scouts of America**  
**Webelos-Ree Oct. 19 - 21, 2012**

## VIRGINIA STATE PARKS



Sky  
Meadows





# Northern Virginia Mineral Club



American Federation of  
Mineralogical Societies

(AFMS)

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



Eastern Federation of  
Mineralogical and  
Lapidary Societies

(EFMLS)

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

## Fluorescence

By Erica Nathan

### What is fluorescence?

Fluorescence occurs when energy from electromagnetic spectrum (which includes radio, microwave, infrared, visible, ultraviolet, x-ray, and gamma rays) cause an item to luminesce. In other words, fluorescence occurs when an object is hit by radiation and it lights up. This occurs with different types of radiation but most commonly with UV radiation. On a molecular level, we see just how the works. Photons (which are tiny light particles) hit the atoms of our object. The atoms speed up as they gain more energy and luminesce.

### What is phosphorescence?

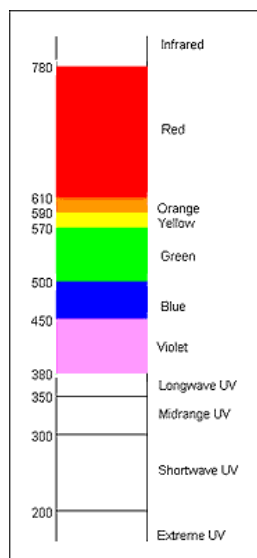
Phosphorescence is what powers glow-in-the-dark stuff. It occurs when the object is hit by radiation and retains the energy. This radiation can be any type in the electromagnetic spectrum, but UV and visible are most common for this phenomenon. Molecularly, this is a pretty amazing process. The photons hit the atoms of our object causing them to speed up and luminesce. Once the photons are no longer hitting the object, its atoms maintain the energy and continue to luminesce.

### What are the different types of UV lights?

UV lights are classified by the wavelength of the light which they emit. In the diagram on the right, you can see the types of UV radiation and their corresponding wavelengths. The most common type of UV light is long wave.

### How do you find fluorescent minerals?

There are two main ways to search for fluorescent minerals. The first involves going to a location rich in fluorescent minerals and testing them under UV. The other option is to take a handheld UV light into the field at night and look for what rocks fluoresce.



Communication and Involvement  
Are the Keys to Our Success!

## Geology Events:

By Matt Charsky

### November:

**10:** 21st Annual Rock Swap sponsored by the Richmond Gem & Mineral Society. Ridge Baptist Church Meeting Hall, 15 E. Ridge Rd; Richmond, VA.

**17-18:** 21st Annual Gem, Mineral & Fossil Show sponsored by the Northern Virginia Mineral Club. George Mason University, Rt. 123 & Braddock Rd; Fairfax, VA.

### March:

**2-3:** 50th Annual Earth Science Gem & Mineral Show sponsored by the Delaware Mineralogical Society. Delaware Technical & Community College, Newark, DE.

### June:

**2-3:** 63rd EFMLS Convention & Show hosted by the Island Rockhounds and Suffolk Gem & Mineral Club. Plainview, NY. EFMLS Meeting; Fri. May 31.





PLEASE VISIT OUR WEBSITE:  
[HTTP://www.novamineralclub.org](http://www.novamineralclub.org)

## 2012 Club Officers

President: Sue Marcus

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Refreshments: Karen Lewis

# The Northern Virginia Mineral Club

You can send your Newsletter article to:

7201 Ludwood Ct.  
Alexandria, VA 22306

Or via email: [news.nvmc@gmail.com](mailto:news.nvmc@gmail.com)

**Visitors are Always Welcome at our Club Meetings.**

**RENEW YOUR  
MEMBERSHIP!**

**SEND YOUR DUES TO:**

Rick Reiber  
Treasurer, NVMC  
PO Box 9851  
Alexandria, VA 22304

**OR**

**Bring your dues to the  
meeting**

**Purpose:** To promote, educate and encourage interest in geology, mineralogy, lapidary arts and related sciences. The society is a member of Eastern Federation of Mineralogical and Lapidary Societies (EFMLS) <http://www.amfed.org/efmls> and American Federation of Mineralogical Societies (AFMS) <http://www.amfed.org>.

**Dues:** Due by 1 January of each year; \$15.00 Individual, \$20.00 Family, and \$6.00 Junior (under 16, sponsored by an adult member).

**Meetings** are held at 7:45 p.m. on the fourth Monday of each month (except May and December\*) at Long Branch Nature Center, 625 Carlin Springs Road, Arlington, VA 22204. Phone (703) 228-6535. (No meeting in July & August.)

(\*Changes announced in the newsletter.) Snow schedule - Arlington county schools.