

Southern Maryland Rock and Mineral Club



Rock Talk



June, 2015



Message from the President

We are half way through the year. Coming up on some more excellent months for collecting for each of our different collections. Had a chance to go to the Limestone Quarry in Mt Pleasant Mills, Pa for the first time. The drive was long but easy. Beautiful countryside and a very welcoming owner who also was a collector. The quarry had nice collecting for all. Fossils could easily be found. Travertine was there in abundance. Calcite was everywhere. A little Fluorite was found hiding in the Calcite seams. Then with some real energy, a dig was done to find Wavelite. A little something for all. I would truly recommend the drive from Maryland to this location.

In August we have our traditional auction. Start thinking if you have material that you have too much of and would like to have sold. This always turns out to be one of the better months for all.

Please keep the communications going between the members so we can expand all we do and make our club better with each meeting. See everyone on Tuesday!!

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Next Meeting:
June 23, 2015 @ 7:00 PM

Program: TBD
Lorna Larson

Refreshments:
Monty and Cheryl Reese

**Clearwater Nature Center, 11000 Thrift Road,
Clinton, MD.**

MAY MINUTES

Submitted by Linda Holden

DATE: Meeting was called to order at 7:03 pm
April 28, 2015.

VISITORS/NEW MEMBERS: --- Jeff Lines, Dave's son. Michael Skelley from Hagerstown found out about us on the Internet. Rich pointed out there were rock displays and lapidary work by Dave and Gary.

MEMBERSHIP: Michael reported that the list is current as of today. Michael will send electronic copies to those who need them.

NEWSLETTER: Tim expressed concern about the legality of showing pictures of children on various field trips in newsletter without parental permission.

FIELD TRIPS: No report. Dave and Rich went to Morefield Mine on May 2nd. Rich found a beryl crystal. Gary reported about an activity in St. Clair July 26th for fossils. Tina said there may be a possible field trip in Utah this summer. Jim has a joint trip to the limestone Quarry in Pennsylvania in June

TREASURER: No report.

MINUTES Approved as written

PROGRAMS: Carol needs volunteers for June, July, and November for programs. Gary suggested that we contact other local clubs to see if someone would be interested in being a speaker. There is the Gem Cutters Guild of Baltimore, Washington Micromounters, Chesapeake Gem and Mineral Society, and Patuxent Lapidary. A lot of professional talent out there. Contact Gary for information. He

knows a lot of these people. Tonight Rich will be presenting the program, 'Rockhounding on the Internet'. He will miss the July Meeting. He gave us a preview of tonight's program. Refreshments were provided by Linda and Paul Holden.

WEBMASTER: No report. Rich sent a report and pictures on the Morefield Mine field trip to Bob.

OLD BUSINESS: Discussion on our show requires conversations with Michael. One day versus a two-day show needs further discussion and exploration. Defer until committee meeting next month

NEW BUSINESS: Gary reported on a program through the Eastern Federation. Last week Gary and Cindy went to Wild Acres. They did silversmitting. In August there is another session. They offer a number of week-long classes such as faceting, gem identification, polymer clay, and silversmitting. It is \$390.00 a person which covers the whole week, including lodging and food. Materials are additional. Class instruction in many areas of interest. It is located near Little Switzerland and Spruce Pine, NC. Rich asked Gary to do a write up.

ADJOURNED: Meeting was adjourned at 7:35 pm.

Wildacres Update

Participants are needed for the Wildacres fall session. The current list of registered students has only a few students, and the fall session is in danger of being cancelled.

Information on the EFMLS Wildacres classes for August 2015 is available in the June/July EFMLS newsletter <http://www.amfed.org/efmls/newsletters.htm>. There is also a registration form and a list of classes in the newsletter for the fall session, which takes place August 24-30. For more information, visit the above web site.

Upcoming Field Trips

Combined field trip to Purse State Park, Charles County, MD on June 27th (contact Bob Ertman—(410) 533-4203 for details)

Combined (with the Gem and Mineral Society of Lynchburg, Inc. and the Roanoke Valley Mineral and Gem Society, Inc.) field trip to Willis Mountain kyanite mine, Dillwyn, Virginia, on August 22nd



A roadside reminder for anyone spending time in the field, that it is tick season. Courtesy of the National Park Service, Greenbelt Park, MD

Upcoming Shows and Events: 2015

July 11-12 –54th Annual Mineral and Jewelry Show, hosted by the Oxford County Mineral and Gem Association. Telstar High School, Route 26, Bethel, ME

July 11-12 –49th Annual GemWorld, sponsored by the Gem and Mineral Society of Syracuse. W Seneca Turnpike, Syracuse, NY

August 22-23 –50th Annual Rock and Mineral Show sponsored by the St. Lawrence County Rock & Mineral Club. Madrid Community Center, Madrid, NY

September 12-13 --52nd Annual Gem, Mineral, and Fossil Show sponsored by the Northern Berkshire Mineral Club. Franteral Order of eagles, 515 Curran Hyway, MA

September 19-20 --Annual Gem, Mineral, Fossil, Jewelry Show and Sale sponsored by the Mid-Hudson Valley Gem and Mineral Society. Gold's gym and Sports complex, 258 Titusville Road, Poughkeepsie, NY

September 26-27 –51st Annual Gem, Mineral, and Jewelry Show hosted by the Gem Cutters Guild of Baltimore. Howard County Fairgrounds, West Friendship, MD

EFMLS/AFMS NEWS by Timothy Foard



The June/July newsletter of the AFMS recognizes AFMS rockhounds of the year.

The Austin Gem and Mineral Society's annual show, Gem Capers 2015, will host the American Federation and South Central Federation conventions and show on October 23rd - 25th. There is an lengthy article on the final ruling by the USDA for the National Forest Service regarding rockhounding and casual (unplanned encounter of fossil sites) collecting .

For these and other information, visit www.amfed.org



The EFMLS Newsletter for June/July has the minutes of the 65th Annual Meeting of the EFMLS convention at Hickory, NC. There is a call for judges to evaluate competitive cases. Training is free and takes place august 14-16, 2015 at the Lodge Hotel and Banquets, 3551 Penridge Drive, Bridgeton, Missouri. An article on James Dwight Dana, the father of the Dana's System of Mineralogy, also is included in the newsletter.

For these and other information, visit www.amfed.org.efmls

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Rocks, Minerals, and Fossils in the News

Mountain Park Elementary School Second Graders Become Geologists For the Day

<https://www.tapinto.net/towns/morristown/articles/mountain-park-elementary-school-second-graders-be>

By MOUNTAIN PARK PTO

May 28, 2015 at 12:26 PM

BERKELEY HEIGHTS, NJ - Mountain Park second graders transformed into geologists! How? Linda Dressler of High Touch High Tech visited the school on Wednesday and led the students through the completely interactive "Dig It" program.

The "geologists" first spent time in the classroom learning all about gems, rocks, and minerals and where they come from. They then took a trip into the courtyard where they panned for real gems. After the students gathered the gems they had panned, they returned to the classroom to test and classify their gems.

The program ended with each "geologist" receiving their very own completion certificate to take home as well as all the gems they had panned for in the courtyard.

The program was "hands on learning" at its best and tied in perfectly to the rocks and minerals unit they have been studying in science class.

This program was sponsored by the Mountain Park PTO.

Fossils of Prehistoric Shark Discovered in Texas

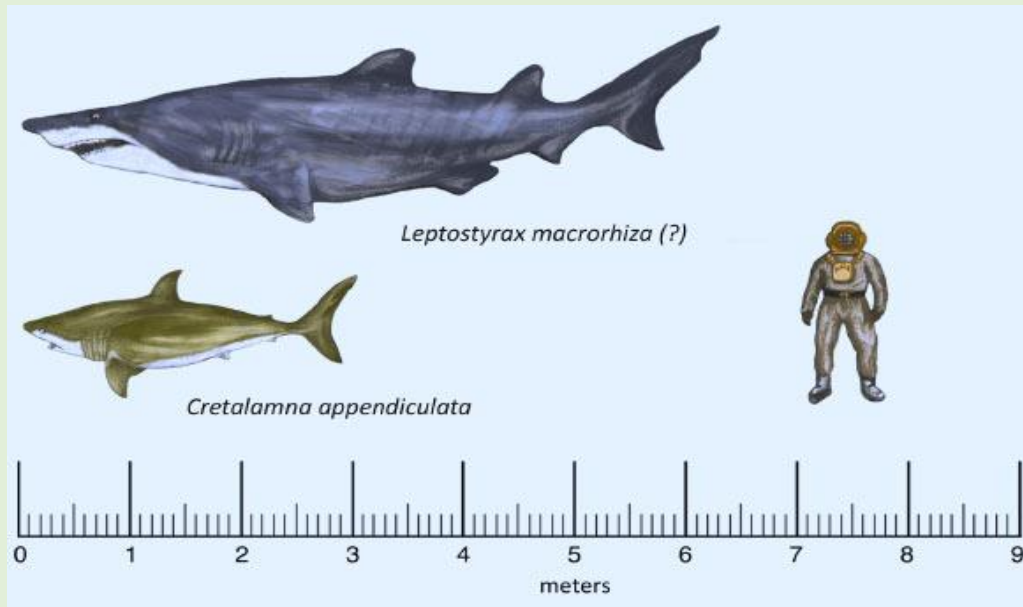
<http://www.sci-news.com/paleontology/science-leptostyrax-macrorhiza-texas-02882.html>

Jun 5, 2015 by Sci-News.com

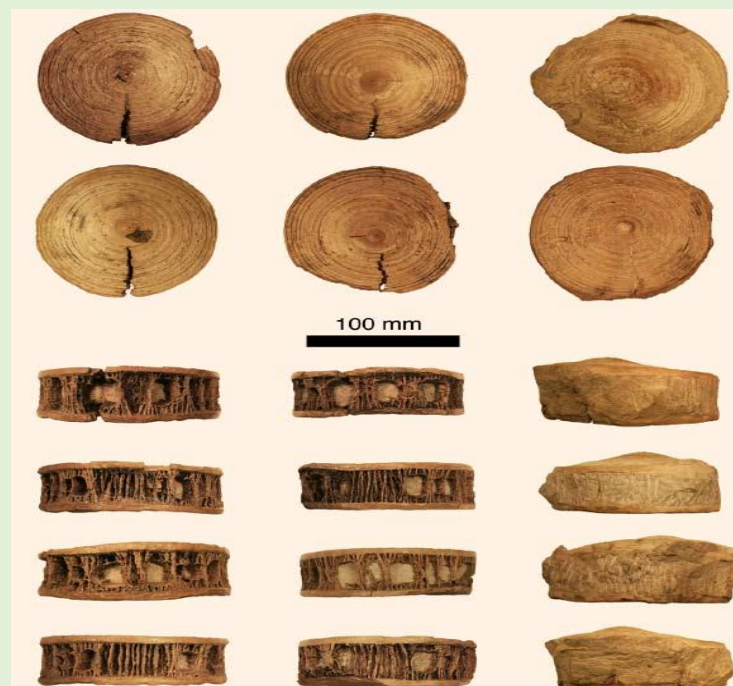
Three large vertebrae, believed to be that of an ancient, gigantic shark, have been discovered in Texas by members of the Paleontology Club of the University of Wisconsin-Milwaukee. The shark fossils were recovered in 2013 from the Lower Cretaceous Duck Creek Formation of Tarrant County, north-central Texas. They then were analyzed by a team of paleontologists led by Dr Joseph Frederickson from the University of Oklahoma, Norman.

“These vertebrae represent a single animal of approximately 6.3 m (20 feet 8 inches) in minimum total length, making this individual one of the largest documented sharks from the Early Cretaceous of North America,” Dr Frederickson and his colleagues wrote in a paper published in the journal *PLoS ONE*.

The scientists hypothesize that these fossils belong to the prehistoric lamniform shark *Leptostyrax macrorhiza* (lived between 145 and 100 million years ago) based on their size and co-occurrence in two typical localities.



Reconstruction of the lamniform shark *Cretalamna appendiculata* and the shark described by Dr Frederickson and his colleagues. Image credit: Frederickson JA et al.



The three newly-discovered shark vertebrae in (descending order) rostral, caudal, ventral, right lateral, dorsal, and left lateral views. Image credit: Frederickson JA et al.

“However, without associated teeth, this identification cannot be confirmed,” they wrote.

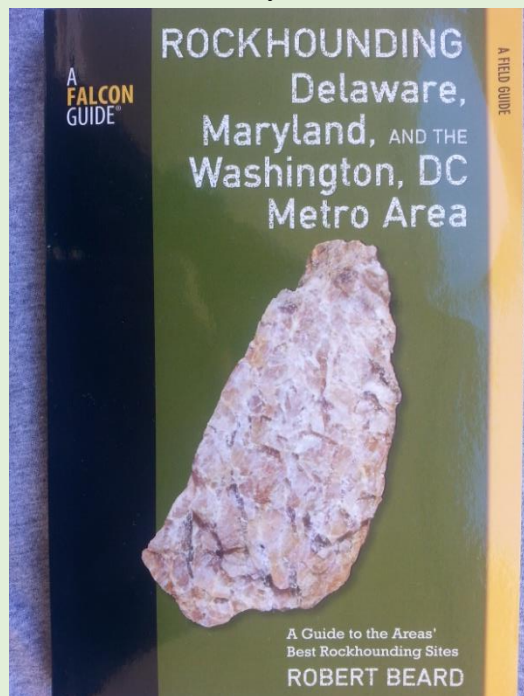
“This specimen has unique morphology undocumented in any other Cretaceous shark from North America, but shares large size with a contemporaneous vertebra from the Kiowa Shale of Kansas.”

Frederickson JA *et al.* 2015. A Gigantic Shark from the Lower Cretaceous Duck Creek Formation of Texas. *PLoS ONE* 10 (6): e0127162; doi: 10.1371/journal.pone.0127162

Book Review

Rockhounding Delaware, Maryland, and the Washington, DC Metro Area

Timothy Foard



I was a bit excited when I received notice that a local rockhounding guide will be available on May 23rd. “Rockhounding Delaware, Maryland, and the Washington, DC Metro Area” is the third of a series of Falcon-Guides by Robert Beard; the other two being “Rockhounding Pennsylvania and New Jersey” and “Rockhounding New York.” This guide is strictly a location guide: where to find rocks, minerals, and fossils in the covered area. There is a bit of an introduction on essential collecting equipment and safety in the field. It briefly summarizes the major physiographic regions, some of the most important minerals extracted from the region, and an explanation on how to use the guide. The author intended the guide to be geared toward those individuals who has at least an interest in geology, is willing to travel to some of these sites listed, but may be taking non-interested family members on these excursions. He attempts to pacify the bored family members by including nearby attractions. For each site, he gives as detailed

information as possible. Much of the information seems to be fairly accurate and the sites’ photos look recent. He stated in the book that he visited all the sites listed. Sometimes he can be too detailed. For example, Robert gives GPS coordinates to parking, picnic area, and beach for Chancellor Point Beach, St. Mary’s County, Maryland (page 168 in this guide), which seems excessive, especially since these coordinates are very close together and there is likely a trail which connects the three, making it unlikely to get lost. Excessive GPS aside, there is a lot of useful info, and he does a very good job in prepping you in what to expect when visiting each locale. For each site he lists county, site type (terrain or land feature); land status (such as private or state land); material (the reason you will be visiting this site); host rock (a prelude to what equipment to bring); difficulty (to access the site), whether or not the site is family-friendly; what tools are needed; special concerns (such as traffic, limited parking, or whether collecting is allowed); special attractions (something for the “Can we please leave now?” or the “How much longer?” group); GPS coordinates; topographical quadrangle maps (for the old-schoolers and for GPS backup); and driving directions to the site. Under the “Rockhounding” section he gives additional info on the history of the site and his personal experience and finally closes out with one or more references for each locality.

There are 12 Delaware sites included in the book, nearly all in the northern part of the state. For Maryland, 51 sites are listed, but several are actually located just across the Mason-Dixon Line in Pennsylvania. Most of the Maryland sites are clustered around the Baltimore area and along the I-70 corridor. Fifteen sites are listed for the Washington, D.C. metro area: 5 are found opposite the Potomac River in Virginia, and none within the District’s boundaries, but close enough in Maryland for a short drive for DC residents. A few of the sites,

in Delaware and on Maryland's Eastern Shore, contain beach glass as the object of interest.

There are a couple of errors in the book. On page 232 under "Host Rock" for the Piscataway Creek Tributary Turritlella and Armored Mud Ball" site page he stated the Nanjemoy Formation as Miocene in age, when in fact it is early Eocene. A couple of pages later, for Purse State Park (page 235) he wrote that collecting sharks' teeth is not allowed, and then proceed on his collecting activities at the park. Actually collecting is allowed at this site. Although Robert does stresses not collecting specimens in areas where collecting is prohibited, I sometimes find it hard to believe he showed restraint under some circumstances. On page 229, there is a hand holding a large cleaned gypsum crystal from Fort Washington National Park. The crystals from this area are coated with clay. I am not convinced such a beautiful large crystal was cleaned for a photo only to be left at the site. Possession is, after all, nine-tenths of the law. In areas where collecting is known to be strictly forbidden, as in national parks, the material should had been photographed protruding from of the host rock, or lying on the ground with no handling to reinforce the "no collecting" policy to the readers. All these are rather minor comments; a couple of errors can be expected. The biggest complaint I have about the book is that Robert goes out of his way not to mention the numerous rock and mineral clubs common in the region which is the subject of his book. I do not know why they are not included—there is a general mention on page three—and then he is silent on this subject. I personally find this rather bothersome to not mention the various clubs—many had been around for decades—that will provide a wealth of information and support as well as share a common interest, to individuals interested in rocks, minerals, fossils, the lapidary arts, and all things geological. This is why we join such clubs. The author intentionally did not include internet resources because he believes they are constantly changing,

(you can really make that same argument about many things) but he did recommended conducting internet searches for rockhounding related topics.

Overall I find "Rockhounding Delaware, Maryland, and the Washington, DC Metro Area" to be a very useful guide. I definitely plan to check out several areas described in the book, and hopefully report on my experience in the near future. It is a good starting point on where to find specimens for the beginner and as a supplement for the more seasoned rockhound, who understands and appreciate the value of membership in one or more of the local clubs.

Field Trip Report: "Flowstone and Green Balls"

Dave Lines



The weather was cool and cloudy with a light breeze when Rich and I arrived at the office for the National Limestone quarry at Mt. Pleasant Mills, Pennsylvania about 8:45 AM. Although there seemed to be a threat of a shower, it was a welcome relief to the recent 90 plus degree days we had been used to back in Maryland. Only three other cars had arrived when we pulled in --- as it turned, everyone had encountered the same "Bridge Closed" sign a few miles before reaching the quarry. By 9:15 or so, most of the attendees had arrived, so mine owner Eric Stahl gathered us in his office and we listened to his

Christian testimony --- "the only cost of admission to his quarry", as he put it. He included a safety brief as well as directions where we should look for the various minerals. By the time he had finished, we had a group about 17 people who smiled for a picture outside. Eleven (11) of them were from the Delaware club, 2 from Southern Maryland club and the rest from Montgomery County club. It was going to be a great field trip. Jonathan Harris, , the overall trip leader and from the Montgomery County Club, lead a group of us to the Middletown Quarry about 10 miles away for the first half of the day in order to have fewer people at the very small Mt Pleasant Mills quarry wavellite site. At the Middletown Quarry, we hoped to locate some "flowstone" --- travertine --- formed by dissolved calcite which re-deposited in a limestone cave environment. Following the directions from Eric, we were happy to quickly find plentiful quantities of travertine --- enough to spend the next hour carrying it back to our vehicles which were parked about 200 yards away. Chunks of the light yellow-tan to brown material from fist size to larger than a car were available. Solid pieces with lots of banding were ideal for making attractive lapidary items, while those with vugs and traces of their cave origins made great specimens as is. We all spread out and briefly searched the quarry for other minerals and found some small calcite crystals in vuggy limestone as well as some purple fluorite embedded in massive white calcite.



Limestone boulder with vug lined with calcite crystals

Around noon, we returned to the Mt Pleasant Mills quarry which is much smaller. Rich and I stayed in the main quarry about 20 minutes where we found small calcite crystals --- some coated with an iridescent hematite coating --- in small vugs in pieces of the loose limestone around the edges of the quarry. I also saw some white strontianite, but the delicate tuffs had been damaged.

Around 12:30, several folks returned from the wavellite site on the backside of the ridge, so Rich and I departed and moved to the wavellite area. Actually there were 2 locations --- the first was not very productive and we saw another truck about 100 yards further up the (narrow) road. Rich checked it out and said we should move. We did and spoke to one of the fellows who had spent the whole morning digging there. He showed us some beautiful dark green, well-formed wavellite balls (1/4" to 1/2" diameter) on the sandstone matrix. These were the best specimens I have seen from this location. He suggested we start digging in the hole on the right side. We did, but it was about 3 or 4 feet deep and the edge had just caved-in and buried the area in 2 feet of rock and mud. Rich and I spent the next 1-1/2 hours removing that overburden without finding a single piece of wavellite. Then we saw some broken wavellite on one of the solid rocks on the backside of the wall --- but we could not get to it safely until

we removed more overburden. So-o-o we spent about 20 minutes caving in the back wall and moving the dirt and rock out of the hole. Then we spent another half hour with chisels and wedges carefully removing the very solid bedrock where we had seen the wavellite indications. The bottom line -- after investing over two (2) hours of hard work digging out rock and hammering wedges, we finally collected about a flat of material (which we did not have time to clean or examine because it was time to go home).

After a 3-1/2 hour drive back to home in Maryland, Rich and I divided our finds with a flip of a coin. Starting with the wavellite, Rich got first choice. And so it went until we divided everything. The next afternoon, I washed the heavy red mud off most of the specimens with a garden hose and was pleased to have a few with nice wavellite spheres of a deep green color and decent size --- 1/4" to 3/8". I "test cleaned" a few small pieces in "Whink" and some in "Iron Out". "Whink" was the fastest but it seemed to lighten the color. Those in Iron Out were slower to show results, but seemed to retain the desirable deep green. I hope to soak the larger wavellite specimens in Iron Out for as long as it takes to remove the brown rust staining.

The flowstone (travertine) cleaned up easily using just small wooden sticks (to remove big mud clumps) and the garden hose. The banded travertine should make some handsome polished spheres and bookends. I even had one piece with nice holes and vugs that had wavy translucent walls. Some of these vugs had nice, calcite druse and some crystals as well as delicate wafers of thin calcite coated with druse calcite. There were also some quartz crystals on the back of one of the travertine chunks.

It was both a productive and an enjoyable field trip -- and one which I highly recommend that you go on next time. By the way, the high temperature at the

quarry that day (June 13th) was 78 degrees --- and en route home the temperature as we passed Baltimore had climbed to 92.

Green Minerals from the Mid-Atlantic Region: Prehnite

Timothy Foard



http://earthphysicsteaching.homestead.com/Prehnite_Mali_3.jpg

In 1774 Hendrik von/van Prehn, a Dutch colonel, collected the first specimens of the mineral which would later be named after him from South Africa, which he later sent them to Europe. It wasn't until 1788 that Abraham Werner formally named and described the mineral. It was the first mineral to be named after a person, and also the first mineral described from South Africa. Prehnite, or calcium aluminum silicate hydroxide, is a member of a class of minerals called phyllosilicates (derived from the Greek for "leaf"), or sheet silicates and has the formula $\text{Ca}_2\text{Al}_2\text{Si}_3\text{O}_{10}(\text{OH})_2$. The phyllosilicates are those silicate minerals in which the SiO_4 groups are linked to form continuous sheets. Prehnite is usually pale green, but colorless, white, and gray specimens have also been found. Rarer specimens take on other colors such as blue, yellow, or orange. It is a

moderately hard mineral, 6-6.5; harder than many of the green minerals occurring in this area. Some of the identifying characters of prehnite besides color are uneven fracture, a density of 2.9, white streak, and a vitreous or pearly luster. Its orthorhombic crystals are rarely observed, and other forms of the mineral—globular, botryoidal, massive, or granular—are much more common. It is most commonly found in veins and cavities in igneous rocks and as also a product of low grade metamorphism. In these environments it is often associated with calcite, epidote, and especially the zeolites. When heated, prehnite, like the zeolites, will give up water molecules, but unlike them, will not regain the water it lost.

Some of the best specimens of prehnite are found in South Africa, Namibia, France, Germany, Austria, Italy, Switzerland, the USA, and Australia. The best American material comes from several quarries in New Jersey, Pennsylvania, and Virginia.

Its moderate hardness and delicate green color gives it some value as a gemstone. Normally, prehnite is translucent and is polished as cabochons or beads, but the rare transparent forms are faceted.

Sources

Simon and Schuster's guide to Rocks and Minerals, by Annibale Mottana, Rodolfo Crespi, and Giuseppe Liborio. Published by Simon and Schuster, Inc, 1978, 607 pp.

Prehnite Gemstone Information

<http://gemselect.com/gem-info/prehnite-info.php>

Dana's Textbook of Mineralogy, with an Extended Treatise on Crystallography and Physical Mineralogy, by Edward Salisbury Dana. Fourth Edition, 1932. John Wiley and Sons, 851 pp.

Prehnite. Mindat.org.

<http://www.mindat.org/min-3277.html>

Fleischer's Glossary of Mineral Species 2008. Malcolm E. Back and Joseph A. Mandarino. The Mineralogical Record, Inc., Tucson, 345 pp.

Member's Finds

Two views of an unidentified blue micro mineral, collected by Jim White, from the Gettysburg (formerly Valley) Quarry, a hornfels and diabase quarry in Gettysburg, Pennsylvania.



Collected any interesting specimens? Send a photo or two to the editor at bmorebugman@yahoo.com for inclusion in the next issue of Rock Talk.

Regional Mineralogical Societies
Web Pages

www.amfed.org

American Federation of Mineralogical
Societies

www.amfed.org/sfms/index.html

Southeast Federation of Mineralogical
Societies, Inc.

www.amfed.org/efmls/

The Eastern Federatonm of
Mineralogical and Lapidary Societies,
Inc

www.cfmsinc.org

California Federation of Mineralogical
Societies, Inc

www.amfed.org/mwf/

Midwest Federation of Mineralogical &
Geological Societies

www.amfed.org/nfms/

Northwest Federation Mineralogical
Society

www.rmfmns.org

Rocky Mountain Federation of
Mineralogical Societies

www.scfms.net

South Central Federation of Mineral
Societies



**The Southern Maryland Rock and
Mineral Club**

**Meetings take place on the 4th
Tuesday of each month at 7:00pm**

**Clearwater Nature Center, 11000
Thrift Road, Clinton, MD.**

For More information, call:

(301) 297-4575

**We're on the web:
SMRMC.org**