# The Mineralogical Society of the District of Columbia THE MINERAL MINUTES

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# **Dues are Due**

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**Program for the March Meeting:** 

Wednesday, March 4, 2015 7:45 pm Smithsonian Natural History Museum

10<sup>th</sup> Street and Constitution Avenue, NW

# **Zooming-In on Micro-Minerals**

by Michael Pabst

Michael has collected micro-minerals for 47 years, with the support of his wife Karen. Because many micro-minerals are nearly invisible to the naked eye, and most people don't have stereomicroscopes, Michael uses photomicrography to share his enthusiasm and his collection with a wider audience. One of the delights of micro-minerals is the discovery of beautiful crystals that are hiding on an unimpressive rock. To re-create that experience, Michael will show a series of pictures that start from a chunk of rock and then zoom-in on beautiful crystals. Michael has a special interest in minerals that contain rare elements. These include the lanthanides, also known as rare earth elements. These are elements like cerium, gadolinium and lanthanum. (Michael gave a program to MSDC in 2013 about minerals containing rare earth elements.) A step above the lanthanides in the periodic table are the actinides. The actinides include three primordial elements, thorium, uranium, and plutonium, as well as elements that are products of radioactive decay like neptunium and berkelium. Just as the rare earth elements are all similar in their chemical and physical properties, so thorium and uranium are similar to each other, and they are also similar to the rare earth elements. Of the actinides, only thorium and uranium are abundant enough to form minerals in which they are essential components. There

are some nice thorium micro-minerals, but uranium is amazing! Unlike thorium, uranium can become oxidized to the 6+ oxidation state. U<sup>6+</sup> forms many secondary minerals that are brightly colored green, orange, red, and yellow. Because many museums hide their radioactive minerals, and even enlightened museums like the Smithsonian keep viewers at a distance, this talk will be an opportunity to see these amazing uranium minerals up close.

Michael Pabst is a retired professor of biochemistry, who taught at the University of Colorado in Denver, and at the University of Tennessee in Memphis. His research centered upon improving *innate* resistance to infection, to confront the problem that so many microbes have become antibiotic-resistant.

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## Synopsis of the February MSDC Business Meeting

- Andy Thompson, Secretary

Given the club's regular meeting space was not available, members met for the first time in the Natural History Museum's Cooper Room. President Steve Johnson called the February club meeting to order and welcomed Mercer Parker the evening's main presenter guest. Also introduced were Mercer Parker the evening's main presenter and Professor Profess Shelly Jaye who would be giving a short concluding talk. Also welcomed were Bradon Hiller and Whitney who attended for the first time.

## New Business

Given there was no old business to conduct, under 'new business' members discussed the upcoming 14 Feb field trip to James Madison University's geology department and activities facilitated by Professor Lance Kearns. Those interested in participating need to contact Tom Tucker (threedogtom at earthlink dot net) and show up as close to 9 a.m. as possible. The activities will include visiting the mineral museum, examination and possible purchase of micro minerals and use of the X-ray diffraction and scanning electron microscope to identify any mysterious minerals.

Sheryl Sims urged that some MSDC members participate in the annual EFMLS conference, March 27 to 29 in Hickory NC. The Hampton Inn is the hotel of choice and immediately adjacent to the conference center. This year's program is hosted by the local Catawba club and there will be some field collecting activities following the gathering. Clubs need to notify EFMLS in advance as to who will represent their clubs as Director, Delegate and/or an Alternate.

Dave Nanney provided a Sunshine update on MSDC's longstanding member Cynthia Payne, noting that her health is recovering and she welcomes visitors. Contact the Fishers for further information (NOVAYA2 at Cox dot Net)

Upcoming Programs include a return presentation by Michael Pabst who will share his photos and knowledge about micro minerals at our 4 March meeting. The April 1<sup>st</sup> meeting will

feature a report on the very recent Rosetta meteor landing and analysis by Thomas Gautier a member of the Rosetta team which directs the research pertaining to this meteor including unpacking its results which are just beginning to surface.

## **Geology in the News**

Sheryl provided two interesting reports. The first was based on a mystery that recently surfaced in Arizona. Health workers reported a sharp increase in health problems which local geologists recognized as possibly related to naturally occurring asbestos. After some research, two geology professors found previously unreported large deposits of asbestos minerals in Mohave County in northwestern Arizona and also in southern Nevada near Las Vegas, Boulder City and Henderson. Even low level exposure to the fibrous amphiboles can be a threat to public health.

Sheryl noted that the Sci-New.com website published the findings of several local professors who said these minerals can become air born due to natural erosion processes. MSDC members added that recreational vehicles (dune buggies) also need to be considered a potential source of this growing problem. The Sci-News.com article identified the following minerals as known carcinogens: riebeckite, grunerite-cummingtonite, anthophyllite, tremolite and actinolite. The second "geology in the news" story described a new theory about how certain gold deposits were formed. The sciencedaily.com website proposes how the world's richest gold deposits were formed. (This is not to be confused with how gold is formed in the collapse and explosion of stars.) The discussion concerns how the gold is concentrated into a body of ore. Geologist Christoph A. Heinrich argues that the Witwatersrand Basis in South Africa, which holds the world's largest gold deposits, up to 40% of all gold discovered to date, has something to do with earlier inhospitable climate hundreds of millions of years ago. He believes the gold particles were indeed transmitted by rivers, but not as the traditional view would have it. Rather, he claims the gold in the South African deposit was not carried by rivers in pebble form or carried embedded in quartz. Instead, the South African gold was transmitted in dissolved form, eons ago, when the earth's atmosphere was devoid of oxygen and rich in atmospheric and deposited sulphur. Microbial life-forms consumed the sulphur leaving the gold deposited in strong concentrations, giving today's miners their rich rewards. This theory by Heinrich seems halfway between the geothermal deposition theory and the affluent river theory. This debate will probably go on until further data accommodates one or both positions.

# Presentation of a Gift

Given that several of MSDC members have greatly benefited from their geological studies at NOVA Community College, especially with the assistance of Professor Shelley Jaye, President Steve Johnson and V.P. Dave Nanney expressed their appreciation of Shelley by awarding her with a Crystal Forms Collection box replete with 3 D printed crystals, all constructed by Steve Johnson. When completed, the box will be capable of holding 35 such crystal models which will further the geological education of the NOVA CC students. MSDC members applauded the contributions both of Shelley as well as of Steve. Shelley expressed her amazement and gratitude for this unique and creative pedagogical tool.

<u>**Close of Business Meeting**</u> – Having completed discussion of the agenda items, members proposed and seconded the close of the business portion of the evening.

## <u>Program Synopsis</u> - Andy Thompson MSDC February Program: "Geo-Lab Developments at NOVA Community College" Presented by Mercer Parker

Mercer's plan for the evening was to share "the latest and greatest events" happening in the geo-lab at NOVA-Community College in Annandale. He hit his mark by highlighting the Geology department's relationship with the United States Geological Survey (USGS), by sharing the results of his own research on the USGS Chesapeake Bay Impact Crater core samples, and on ultramafic rock in the Central Piedmont. Throughout his presentation, he also gave numerous examples of his delight with the competence and personalism of the NOVA faculty and the many doors that "NOVA has not only opened but blown off their hinges" including being able to work with USGS scientists, worthwhile projects and high tech analytic equipment newly available in the Geology department.

The first project Mercer reported on was his work with Josephine County California ophiolite, which is a mineral mix which occurs when heavier rocky basaltic oceanic crust has been obducted. This event happens when there is an upward fold in a subduction process. Specifically, this relatively rare occurrence takes place when heavy oceanic basalt mixes with the lighter granitic continental materials which include silica, aluminum, potassium and oxygen. The particular ophiolite he studied was located in an area between Gasquet in northern California and Grants Pass in Josephine County, Oregon. The challenge which Mercer found exhilarating was to properly identify the mix of minerals he and fellow researchers discovered in that area and resulted in their receiving the kudos of seasoned scientists.

A second project he explained at considerable depth was working with a few of the cores which the USGS drilled and extracted from the Chesapeake Bay Impact Site (CBIS) ten years earlier. The USGS had completed its study of the cores and so was happy to loan them to NOVA with the hope the students and faculty could make further discoveries. Mercer described the effects of the bolide, that is, the large meteor which impacted into the Chesapeake Bay 35 million years ago. Due to its large size (over one mile wide) and high speed of its watery impact, it created the 7<sup>th</sup> largest crater on earth. That crater was then very well preserved because it was immediately covered with several thousand feet of mud, silt and water. Also it was found to be a very unusual crater in that it has a central peak, again, well below the Bay surface. Because the cores studied at NOVA were taken from the bottom, they found no shocked crystals, that is, the rock within the borrowed cores was not impacted by the bolide. But study of the thin section slides the student prepared did generate debate and serious first-hand geological exploration into the identity of the minerals they contained along with a change in some nomenclature. Mercer referred briefly to his other research projects, one of which included the study of upper Florida rock formations and the intrusion of salt water into the fresh water aquafers. However, they did not tackle the causes of the salt intrusion into the fresh water. Another project studied the central Piedmont and used the SEM which NOVA recently purchased for dual use by the physics department and geology department which used it recently to analyze the ultramafic rock found along Route 28.

Professor Shelley Jaye then wrapped up the evening by describing how significant financial donations have allowed NOVA to purchase valuable high tech equipment including an X-ray machine and a SEM, both of which allow for analysis of the mineral contents of an unknown sample. Shelly presented slides of some of their work and explained how an electron beam hits the sample, interacts with its surface atoms which in turn emit electrons forming a backscatter characteristic signature portrait which includes various plotted peaks indicating which elements are present, the quantitate extent of their presence, including if the same element shows up at different frequencies. Also the SEM allows very high magnification of up to 120,000 times normal. Shelly showed excellent slides of magnesium, olivine and of sand having extremely tiny crystals and life forms. She showed a beautifully symmetric diatom (algae) having a width of 3 microns which appeared at a magnification of 80 X.

In response to a question, she also undated MSDC members explaining that earlier undergrad geological studies included laborious identification of minerals by manually "coloring" a digital portrait of a rock's thin section, point by point. But now, Shelley indicated, that task is facilitated by a time-saving automated process.

MSDC's attendees expressed their appreciation by strong applause for Mercer's and Shelley's presentations.

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## **Clarification of the AFMS Scholarship Funds** - Sheryl Sims

Last month's minutes referred to comments that I brought up during our monthly meeting regarding our need to support federation fundraising. I hope that the below provides a clearer understanding of the process.

Per EFMLS Editor Carolyn Weinberger, the EFMLS does not have its own scholarship fund. However, the AFMS asks individuals and clubs to contribute to its scholarship fund. The money contributed is invested, with the interest used to fund \$4,000 scholarships each year for 12 students.

Two students are selected from each contributing federation, and an honorary recipient makes the selections. The honorary recipient is named by each federation. If the honorary recipient is a professor, he or she may make the selections or may have a school of his or her choice make the selections. All scholarship recipients are graduate students in the Earth sciences.

If you wish to make a direct donation to the AFMS scholarship fund, you can send a check payable to AFMS Scholarship Foundation to Ken Creed, EFMLS Coordinator. For his mailing address and any further information you might need, you can contact him at kcreed@maine.rr.com.

You can also make an indirect donation by sending mineral specimens to the AFMS Endowment Fund Drawing, to be used as prizes for the drawing at the AFMS annual convention. Prizes are donated and tickets are sold for \$5 each or 5 for \$20. This year's convention will be held in Austin, TX, on October 23–25. For more information on the AFMS Endow- ment Fund, contact Carolyn Weinberger at edi tor@amfed.org.

Although the EFMLS does not have a scholarship program, it does have an endowment for special projects called the Eastern Foundation Fund (EFF). For example, the EFF recently funded duplication of the Rochester Symposium tape programs from videotape to DVD.

Again, only the interest earned from the principal goes to fund special projects; unspent interest is deposited into the untouchable principal. If the interest is not spent in a given year, it is deposited into the untouchable principal.

If you would like to make a contribution to the EFF, you can send it to the attention of Michael Kessler, EFF Chair, at 4 Longfellow Road, East Stroudsburg, PA 18301. You can also make mineral contributions towards the auction held each year during the EFMLS annual convention. This year, the convention will be held in Hickory, NC on March 27–29. If you have any further questions, please contact Michael Kessler at quartz7228@aol.com.

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# **Guest Editorial - Sheryl Sims**

(Editor's note: We always welcome the thoughts of members on topics related to minerals or the functioning of the society. While we are a very congenial group and have few issues with difficult social interactions, it is always good to be prepared for the unexpected.)

# A MINERAL CLUB'S GUIDE TO COPING WITH DIFFICULT PEOPLE

By Sheryl E. Sims



Recently, while enjoying a meal with friends, the topic of a common problem arose. It concerned "coping with difficult people." Now, it may be hard to believe; but there are times when rock hounds can be difficult. I know, I know, not in *your* club, but out there somewhere, is

a club with one or two difficult members. Sharing a few tips to help you cope with difficult people struck me as a good idea. *Disclaimer: I'm not an expert, nor do I hold credentials in the field of psychology.* I do, however, have an opinion, and I'm not afraid to share it.

Did you know that whether employers, family members, or even mineral club members, dealing with difficult people directly and negatively impacts your mental and physical health? I know, because I have been driven crazy plenty of times. If you think I'm nutty, blame difficult people. They drove me to distraction. Think about this and remember that positivity and support is good for your mental and physical health, while negativity and conflict deteriorates the same. Let's be good to one another. Here are some tips for coping with difficult people:

- Bearing in mind that you have probably spent a lot of time acquiring the rocks and minerals in your collection, it is best to approach difficult club members with a *positive attitude*. One would not want to waste or destroy a perfectly good mineral specimen because you threw it at the head of a difficult club member.
- *Keep calm.* When that annoying club member starts spouting off at the mouth, take a few deep breaths and think of your pretty mineral collection. Remember that wonderful piece of Kyanite that you found on Willis Mountain that time? Oh! How about the time you went fossil hunting near the Chesapeake Bay? Along with the huge shark tooth that you found, think about the calm, rhythmic lap-lap-lapping of the waves as they break on the beach.
- If watching waves doesn't work, *practice stress management*. Practicing deep breathing exercises is like sticking your hand deep down in a tight vug and trying to extract that perfect crystal without destroying it! This is so much more practical than ripping someone's throat out. Hold your breath and count to five. Release. Repeat two more times. Now, don't forget to let it out and breathe! Suffocating can be equally stressful.
- Don't take the difficult person's bad behavior personally. Remember that children's rhyme that went like this? "I'm am rubber and you are glue. What bounces off of me, sticks to you!" Listen, like or not, some people never grow up. Their teeny-tiny inner child is *still* having a bad day. Their adult-self continues to throw fits and temper tantrums. Simply grab your obsidian sphere and roll is soothingly around in the palms of your hands. Pretend that you are practicing pitching and lobbing it across the room. Aim very near to where the difficult person is standing and *pretend* to throw the sphere at your target. Don't, I repeat, don't release the sphere.
- *Keep your cool.* Try to avoid "hot" topics. Let's say that you outbid a difficult person at the club auction. You knew good and well that that person *really* wanted a certain specimen badly. You wanted it

too, so you out bid them. Although your win was "fair and square," don't keep retelling the story at the monthly pre-club meeting dinners. Or, what about that time you volunteered to serve as a judge for the BEAC Editors Competition? You may think that it's okay to approach the author of a poorly-written submission and go on and on about how "excellent" *another* author's article was on the same topic 15 years ago, but it's not. Exercise a bit of restraint and coolly walk away. Keep on walking until I tell you to stop.

- Be on the lookout for someone who is inconsistent. Are Dr. Jekyll and Mr. Hyde members of your club? Do they masquerade as one person? Oh, Dear! Dealing with this type of member can be very tricky. Their personalities run hot and cold. They "like" you at one meeting and "hate" you at the next. Their short tempers, rude behavior, and sharp tongues cut like knives. Avoid them like you would a ticking, radioactive, specimen. Their red-flag behavior is an indicator that they can't be trusted. Besides, you wouldn't want them to turn their unwelcomed attention towards *you*! In this instance, go ahead and let them be the center of attention, photo-bomb your group picture, and sit at the head of the table.
- Let it go! Let it go! Let it go! Sometimes, just sometimes, keeping your mouth shut and gulping down anger isn't the best approach. Perhaps you need to ask for help or get support from other club members or officers. Maybe, if the stars are aligned properly, you can even approach the culprit, I mean club member, and "talk things out." Whatever you do, find a constructive way to vent so that you don't explode and create a mess, destroying all of the wonderful minerals that you collected over the years.
- Avoid complainers, overly aggressive members, snipers (yes, snipers) and the dramatic (with the exception of me). Complainers can bring the whole club down. Overly aggressive people stifle the input of the less aggressive. Snipers empower themselves by putting down people they perceive to be weaker or having a subordinate status. They may be good to watch in a movie, but not to have in your club. We don't want them tearing down the ranks. While drama can be *interesting*, too much of it is draining. Even Betty Davis got tired of the drama in her own movies and said, "Judy, Judy, Judy,...." Set limits on the amount of drama to which you're willing to listen then, *move on*!
- Keep an ear open for the *Silent People*. You know who they are. They are timid, whispery, and often reply to each and every question by saying, "I don't know." All I can say is, don't give up on them. While it may be difficult to engage them, a bit of patience may win their confidence and participation. We all need help communicating,

and we don't want to come across as being controlling. Besides, these same people may do exceptionally well at the club's annual mineral show by out-bidding everyone at the "Silent Auction!"

I hope that these simple tips help. Feel free to use them liberally during your club meetings. If, however, you find these tips offensive, please re-read the tips above and remember, don't, under any circumstances, throw your mineral specimens at me!

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# Mineral of the Month - Cassiterite - Susan Fisher

**Formula**: SnO<sub>2</sub> **System**: Tetragonal **Color:** Black, yellow, brown **Luster**: Adamantine, greasy, sub-metallic **Hardness:** 6 - 7 **Density:** 6.98 - 7.01 g/cm<sup>3</sup>



1 Cm Cassiterite crystal on Quartz and Fluorite

Preisseberg District, Krupka, Czech Republic

(Susan Fisher speciman and photo)

Cassiterite, a lovely ore of tin, has been mined for well over 5,000 years and was one of the more valuable commodities of the ancient world. The mineral name seems to have referred to what were non-existent islands "off the coast of Europe." The ancient traders may have even then been trying to protect their monopoly by hiding the source. Ancient metal workers discovered that by putting a small amount of tin (5 - 20%) into molten copper an alloy called bronze was produced and that it was easier to work and harder than copper. This made it very valuable for tools and weapons. The oldest production of tin-bronze is believed to have taken place n Turkey about 3500 BC and there is evidence of exploitation of the tin resources in Britain before 2000 BC. There are accounts of a thriving tin trade developing with the civilizations of the Mediterranean and Britain before the Roman conquests.

Because of cassiterite's high density (around 7 g/cm<sup>3</sup>) and its relative hardness (6 - 7), most commercially recoverable sources today are found in alluvial deposits containing the resistant weathered grains. These deposits, while commercially valuable, are of little interest to most mineral specimen collectors. The best sources of primary cassiterite crystals are found in the tin mines of Bolivia Cornwall, England, and the Czech Republic. In recent years, China has emerged as a producer of very nice specimens. Most of the crystals that are of interest to collectors occur in hydrothermal veins and pegmatites associated with granitic intrusions. While most English and Czech cassiterite specimens come from the resale of older collections, Bolivia and China are currently producing lovely, and relatively inexpensive, samples. Many of these crystals show extensive twinning and brilliant luster so they are attractive additions to many mineral collections. Old time classic pieces from England and the Czech Republic are prized, but tend to be rather expensive if in good condition.

The United States is not noted for the production of cassiterite; although some nice examples have been found at Amelia Court House, Virginia, and in the pegmatites of Oxford County, Maine, as well as in the gem mines of southern California.

(Editor's note: If you have a favorite mineral, please write a short article and let us all enjoy that mineral with you. If you don't have a picture, don't worry. I may have a specimen that we can photograph or we can find a picture that we can use. We want to hear from you! We would also like to hear about your collecting trips or shows you have attended.)

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# **News About Our Members**







Some of our members enjoyed the Southern Maryland show on Valentine's Day. Ed Fisher (and Susan taking Ed's picture) sold some of Cynthia Payne's lovely collection while Sheryl Sims and Andy Muir enjoyed the vendors and visiting with friends.



Members and guests enjoying the February MSDC meeting.

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# **Upcoming Events**

**March 7-8:** Newark, DE - The Delaware Mineralogical Society, Inc. will hold its 52nd Annual Earth Science Gem and Mineral Show @ Delaware Technical and Community College 400 Stanton-Christiana Road; Newark, Delaware 19713 (@ I-95 Exit 4B).. Hours Saturday are 10:00 a.m. to 6:00 p.m. and Sunday 11:00 a.m. till 5:00 p.m. The show features educational exhibits of mineral, lapidary and fossil specimens, displays from regional and university museums, a roster of fine dealers of minerals, fossils, gems, jewelry and lapidary supplies, door prizes, demonstrations of gem cutting and polishing and a children's table, where youngsters may purchase inexpensive mineral and fossil specimens. Admission is \$6.00, \$5.00 for seniors, \$4.00 for youngsters between 12 and 16, and free for children under 12 accompanied by an adult. The Info and Coupons at www.delminsociety.org or contact gene@fossilnut.com. Or call Wayne Urion (302) 998-0686.

March 21-22: Gaithersburg, MD - Gem Lapidary, and Mineral Society of Montgomery County MD., Inc.m 51st Annual GLMSMC Gem, Mineral and Fossil Show At the Montgomery County Fairgrounds – Gaithersburg, Maryland. March 21 & 22, 2015. Montgomery County Fairgrounds - 16 Chestnut Street, Gaithersburg, Maryland 20877. Saturday 10:00 A.M. to 6:00 P.M., Sunday 11:00 A.M. to 5:00 P.M. Admission is \$6.00, ages 12 and older. Admission is Free for Children (11 and under), Free for Scouts in Uniform. To get a \$1 off coupon please go to the club website: http://www.glmsmc.com/show.shtml Plenty of Free parking for the show. More than 20 dealers will have gems, minerals, fossils, meteorites and crystals for sale. Enjoy demonstrations, over 40 exhibits, raffle, door prizes, free workshop, free specimens for kids, and/or get more information about specimens from your own collection. Those under 18 can dig for free specimens in the kid's mini-mines!

March 21-22: Chambersburg, PA 17201, - Annual show; Franklin County Rock and Mineral Club, Inc., Hamilton Heights Elementary School; 1589 Johnson Road ; Sat. 10:00 am-5:00 pm, Sun. 10:00 am-4:00 pm; Admission \$5.00, Children 12 and under free with paying adult; Jewelry- Gemstones-Minerals-Fossils-Displays-Demonstrations - Door Prizes ; contact Mike Mowen, 5979 Altenwald Rd., Waynesboro,, PA 17268, (717) 264-9024; e-mail: mlmo@innernet.net Click for show flyer

**March 28-29:** Sayre, PA - The 46th Annual Che-Hanna Rock & Mineral Club show will be held on March 28th (9-5) and March 29th (10-4). The location is the Athens Twp. Vol. Fire Hall, 211 Herrick Ave, Sayre, PA Contact Bob McGuire 570-928-9238 uvbob@epix.net Visit the club website www.chehannarocks.co.

**March 28-29: Hickory, NC - 65th Annual EFMLS Convention and Show** hosted by the Catawba Valley Gem & Mineral Club. Hickory Metro Convention Center, Hickory, NC. EFMLS Annual Meeting, Friday evening, March 27.

**April 10-11: Alexandria, VA -** Annual Atlantic Micromounters Conference sponsored by the Micromineralogists of the National Capital Area. Springhill Suites Alexandria Marriott, 6065 Richmond Hwy, Alexandria, VA. Registration at <www.dcmicrominerals.org/>

# Visitors are always welcome at our monthly meetings and dinners!

# MEMBERSHIP APPLICATION OR RENEWAL THE MINERALOGICAL SOCIETY OF THE DISTRICT OF COLUMBIA (MSDC)

(\_\_\_\_) Family ~ \$25.00 per year. One address.

(\_\_\_\_) Individual ~ \$20.00 per year.

(\_\_\_\_) New \* (\_\_\_\_) Renewal Dues are for Year \_\_\_\_\_\*

For new members who join in the last months of the year, membership will extend through the following year with no additional dues.

#### ANNUAL DUES – PLEASE PAY YOUR DUES PROMPTLY.

Pay at next meeting or mail to:

\_\_\_\_\_ State \_\_\_\_\_ Zip: \_\_\_\_\_

Mineralogical Society of DC, P.O. Box 9957 Alexandria, VA 22304

Name(s) (First and Last)

#### Address\_\_\_\_

City \_\_

Phone(s): Home/Work/Mobile\_\_\_\_\_

Email(s)

#### OK TO INCLUDE YOU ON CLUB MEMBERSHIP LIST?

(\_\_) Yes – Include name, address, phone, email.

If you want any information omitted from the membership list, please note:

Omit my: (\_\_) Email, (\_\_) Home phone, (\_\_)Work phone, (\_\_) Mobile phone, (\_\_) Address, (\_\_) Name

SPECIAL CLUB-RELATED INTERESTS?

## **MINERALOGICAL SOCIETY OF THE DISTRICT OF COLUMBIA**

(2015 Officers & Board Members)

President: Steve Johnson, stevikj@gmail.com

Vice President & Program Chair: Dave Nanney, dnanney@cox.net

Secretary: Andy Thompson, thompson01@starpower.net

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Directors: Dave Hennessey, John Weidner, and Sheryl Sims

Editor (Acting): Susan Fisher, novaya2@cox.net

Co-Web Masters: Betty Thompson & Casper Voogt, http://mineralogicalsocietyofdc.org/

<u>Meeting Dates, Time, and Location</u>: The first Wednesday of each month. (No meeting in July and August.) The National Museum of Natural History, Smithsonian Institution, 10<sup>th</sup> Street and Constitution Ave, Washington D.C. We will gather at the Constitution Avenue entrance at 7:45 PM to meet our guard who will escort us to the Cathy Kirby Room. Street parking: <u>THERE ARE NOW PARKING FEES, PAYABLE AT THE KIOSKS, AND ENFORCEMENT UNTIL 10 PM.</u>



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## Newsletter of the Mineralogical Society of the District of Columbia

Mineralogical Society of DC % Susan Fisher 14981 Gold Post Ct. Centreville, VA 20121

Time Sensitive Dated Material First-Class Mail